CDP

CDP 2015 Climate Change 2015 Information Request Anglo American

Module: Introduction

Page: Introduction

CC0.1

Introduction

Please give a general description and introduction to your organization.

Anglo American is a global and diversified mining business that provides the raw materials essential for economic development and modern life. Our operations, growth projects and exploration and marketing activities extend across southern African, South America, Australia, North America, Asia and Europe. Our diversified assets portfolio currently comprises bulk commodities – iron ore and manganese, metallurgical coal and thermal coal; base metals and minerals – copper, nickel, niobium and phosphates; and precious metals and minerals – platinum and diamonds. Our headquarters are in London, United Kingdom and we are listed on the London and Johannesburg stock exchanges.

Our business is primarily divided into: Anglo American Platinum, Anglo American Coal (South Africa and Australia-Canada), Anglo American Kumba Iron Ore, Anglo American Iron Ore Brazil, Anglo American Base Metals and Minerals (Copper Chile and Peru, and Nickel, Niobium and Phosphates), De Beers Consolidated Mining Group, Anglo American Exploration, Anglo American Operations Limited (UK and SA corporate offices), Other Mining and Industries, and Vergelegen.

For the purposes of the CDP and other sustainable development reporting, the data presented covers Anglo American companies, subsidiaries and joint ventures over which Anglo American has management control. It does not include independently managed operations such as Cerrejón and Samancor. In November 2012, we ceased reporting on our Loma de Níquel operation following the lapsing of our mining license there. In December 2012, Scaw Metals was divested, and Tarmac Middle East and Tarmac Quarry Materials became independently managed. We divested from our interest in the Amapá iron ore system in November 2013. De Beers, which became part of the Anglo American Group in August 2012, is included for managed as well as independently managed businesses within the business unit, however is not as yet included in our 2015 carbon emissions targets. Our Iron Ore Brazil (Minas Rio mine) operation was recently (end 2014) commissioned and is currently undergoing ramp-up, as such it has not yet been included in our 2015 carbon emissions targets.

CC0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed

Wed 01 Jan 2014 - Wed 31 Dec 2014

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Australia
Brazil
Botswana
Canada
Chile
Namibia
Peru
South Africa
United Kingdom
Zimbabwe
Rest of world

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

CC0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire. If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net. If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

Please identify the position of the individual or name of the committee with this responsibility

The Sustainability Committee is a sub-committee of the Board chaired by Jack Thompson (non-executive director). The Committee's role is to oversee material policies, processes and strategies designed to manage material risks and opportunities, including climate change and energy. Climate change and energy are included in every quarterly report to the Board and in business unit performance reports, as well as in the form of an annual 'deep dive' agenda item. Members of the Sustainability Committee also include: Mark Cutifani (CEO), Tony O'Neill (Group Director of Technical and Sustainability), Sir John Parker (chairman of the Board), Ray O'Rourke (non-executive director), Mphu Ramatlapheng (non-executive director), and Jim Rutherford (non-executive director) along with participation from Business Unit CEOs as well as sustainability specialists from across the Group.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	nertormance		Comment
Management group	Recognition (non- monetary)	Emissions reduction target Energy reduction target	We are currently in the process of developing business unit scorecards that are aligned with a single Group CEO scorecard. These are designed to measure performance against material issues, which include energy and GHG reduction targets as defined by the ECO2MAN programme. Not all indicators are currently linked to remuneration.
Energy managers	Monetary reward	Emissions reduction target Energy reduction target	A portion of energy managers' variable remuneration is linked to quantitative energy and GHG targets developed through the bottom-up ECO2MAN program and associated targets.
Environment/Sustainability managers	Monetary reward	Emissions reduction target	A portion of environment/sustainable development managers' variable remuneration is linked, where relevant, to quantitative GHG and climate change targets in line with

Who is entitled to benefit from these incentives?	The type of incentives	nortormanco				
		Energy reduction target	ECO2MAN targets.			
All employees	Recognition (non- monetary)	Emissions reduction project Energy reduction project Efficiency project Behaviour change related indicator	All employees are eligible for entering the Anglo American Applaud awards, which includes categories for climate and energy initiatives. For example, recently an employee was awarded an Applaud award for developing a mobile methane flaring mechanism that mitigates the climate impact of venting coal mine methane.			

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment	
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Australia, South America, North America, Asia, Europe and Africa. The focus mainly around the areas where Anglo American has a footprint as well as (to an extent) including components of the upstream and downstream value chain.	> 6 years	The Climate Risk and Adaptation guideline has been developed in line with the Anglo American Group Integrated Risk Management and Operational Risk Management processes. The CRA is a systematic approach that utilises 4 Layers in order to identify and analyse climate change associated risks and opportunities and put measures in place to control those risks. Each business unit submits an annual integrated risk report on the key risks & opportunities (including climate change & adaptation risks) to the corporate centre for review & presentation to the Board.	

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

Anglo American's climate change risk & opportunity identification process is aligned with the Operational Risk Management process and governed by the Group's overarching Integrated Risk Management standard. Each level of the business (asset to business unit and Group level) is responsible for the identification, analysis, evaluation, execution & monitoring and review of risks & opportunities relating to their area of responsibility. Anglo American Business Assurance Services is responsible for the overall facilitation, monitoring and assurance of the process/methodology.

The process is four tiered and includes:

Baseline risk assessments involve gathering long term weather data and information including projected regional climate model (including impacts on local communities and infrastructure). This also involves identification of new unwanted events and potential influences on current unwanted events associated with the projections.

Issue based risk assessments involve the analysis and prioritisation of unwanted events using a 5X5 box matrix, ranking them in terms of potential impact and likelihood of occurrence. Bow-tie analyses are conducted to ensure the risk is kept within acceptable limits.

Task-based risk assessments ensure that the risks and opportunities are addressed at the level of individual tasks so that risk control measures are integrated into standard operating procedures. Assessments are conducted regularly to identify areas for continual improvement.

Each site (asset level) is responsible for the compilation and submission of a risk and control register, of which the most material risks are rolled up into the business unit risk & control register and ultimately the Group risk and control register (company level). The Group risk & control register, in conjunction with the operational technical assurance reviews, provides the basis for reporting risks to the Anglo American Board Audit Committee and Anglo American Board Sustainability

\sim				
Co	mı	വി	ttΔ	$^{\circ}$
\sim			цС	ॖ.

CC2.1c

How do you prioritize the risks and opportunities identified?

Climate change risks and opportunities are identified and prioritised with the use of multi-disciplinary workshops. Each subset (from asset level to company level) of the company (with support from the Anglo American Business Assurance Services) is responsible for the identification, analysis, evaluation, execution and monitoring and review of risks and opportunities pertaining to their area of responsibility. The prioritization process is integrated into the issue based risk assessment layer of the risk management process. Issue based risk assessments involve the investigation and prioritisation of unwanted events using a five-by-five box matrix, which ranks risks in terms of potential impact and likelihood of occurrence. Bow-tie analysis and other root cause analysis techniques are used to further evaluate the risks and identify the controls necessary to prevent, mitigate and ameliorate the potential consequences(thus to ensure the risk is kept as low as is reasonably possible). The overall prioritisation is based on likelihood of occurrence and potential impact with potential impact covering multiple facets of the business including: material loss/business interruption/physical damage, safety, health, environment, social/community, reputation, legal, and regulatory. For example, we've done work at Venetia where the risk of extreme rainfall events are likely to continue to increase, which has implications for production and safety at open cast operations. As a consequence of this exercise, we will look at storm water drainage requirements to accommodate 1/500 year flood events.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

At the core of the Anglo American strategy is our position as the diversified miner. Having a diversified portfolio gives us options in terms of how and where we choose to allocate capital to grow the business, improve margins, generate returns and ultimately deliver value, and helps protect us through commodity and economic cycles.

While our aim as a business has always been to generate returns for our shareholders, how we accomplish this – by striving to make a real and lasting contribution to society – is fundamental and defines us as a company. We believe this is best done through forming mutually beneficial partnerships, as reflected in our vision: 'Partners in the future'.

- i) Information regarding climate change, including Anglo American's operational energy and GHG reduction performance as well as external regulatory and policy developments, is reported to the Board Sustainability Committee and executives on a quarterly basis. The information reported is based on the analysis of GHG and energy data that are recorded into a central database by all operations; quarterly reports by each business unit on a range of sustainability issues, including climate change and energy; and relevant results of risk assessments of the potential physical impacts of climate change on certain operations/regions. This information, together with direct engagement with business units and other relevant internal stakeholders (particularly in the case of material risks such as carbon taxes), as well as a review of the external environment as it relates to climate change, form the foundation for the climate change strategy development and review process. All material risks and opportunities are considered in the overall strategy development process those relating to climate change were carbon taxes and the role of coal mining in a carbon constrained economy.
- ii) There are three main aspects of climate change that have influenced our business strategy: changes in the demand for some of our products associated with carbon mitigation imperatives (for example, platinum is increasingly used in low-carbon technologies such a fuel cells); the effects of climate regulation and taxation on the performance of parts of our business (e.g. increased operating costs); and the physical and social impacts of a changing climate and their potential impacts on our operations (including security of energy supply) and host communities.
- iii) In the short term (1-5 years), climate change has driven the more efficient use of energy as well as emissions reductions via the ECO2MAN programme (the targets are a 19% reduction in GHG emissions in 2015 against a business-as-usual (BAU) scenario and a 7% reduction in energy consumption against the BAU by 2015). It has also triggered a series of climate adaptation studies and adaptation plans for high risk assets and projects and raised various opportunities and challenges in relation to certain products (for example, the use of platinum in low-carbon technology presents several opportunities for the business, such as an increase in the use of auto-catalysts in vehicles to mitigate harmful emissions, stationary platinum fuel cells for the electrification of rural communities and the use of platinum in fuel cell electric vehicles).
- iv) The most significant long-term (5-20 year) strategic consideration for Anglo American has been potential risks associated with thermal coal assets in the Group's portfolio. In relation to this, Anglo American and global experts accept that coal will continue to play an important role as a primary energy source until at least 2040 even in scenarios that limit global average temperature increases to 2'C. The company believes that it would be irresponsible, and detrimental to the development prospects of many of the world's emerging economies and poorest countries, to simply stop mining coal. Our responsible approach instead focuses on collaborating in the research and development of pragmatic solutions that manage the carbon impacts of coal through new and advanced technologies in order to achieve a sustainable balance that meets society's expectations.
- v) Our short-term operational GHG and energy reduction programme reduces our exposure to carbon taxation and delivers energy cost savings (~105 million USD in 2014). For the medium-term, we have decided to invest in step change, low carbon, technologies through our Future Smart programme.

vi) The most substantial business decision that has been made in the context of climate change has been to maintain our position in coal mining, given that coal will
continue to play an important role as a primary energy source and is necessary for the socio-economic imperatives in emerging economies. We assessed the
climate scenario impacts on coal demand and associated options on long-term carbon pricing.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price of carbon?

Yes

CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

We have incorporated an internal price of carbon for operations in Australia and South Africa and are currently assessing long term carbon pricing scenarios which impact on global business, including the demand for our products.

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Trade associations
Funding research organizations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Industry Task Team on Climate Change (ITTCC)	Consistent	We Chair the Industry Task Team on Climate Change (ITTCC) in South Africa, which is a non-profit organization that represents energy-intensive industries. The ITTCC is committed to working with industry and business groups and government departments to ensure sustainable economic growth while transitioning to a low-carbon economy. The ITTCC's role is to undertake technical, fact-based studies to ensure that South Africa's policies on Climate Change are based on the best information and best practice and prescribe real, achievable ends.	Anglo American actively participates in meetings, provides expert advice and has supported a piece of work to provide a fact based to inform policy development.
Energy Efficiency Leadership Network (EELN)	Consistent	In South Africa we chair the Energy Efficiency Leadership Network (EELN). The EELN is a collaboration between the Department of Energy (DOE), National Business Initiative (NBI), and Business Unity South Africa (BUSA) to assist the South African business sector with skills and capacity building on energy management and sharing of best practice. The work of the EELN will assist with	Anglo American chairs the meetings and, together with other stakeholders, helps define the strategy of the EELN through expert advice.

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		delivery of the National Energy Efficiency Action Plan (NEEAP). Anglo American's CEO is Chairman of the ICMM and participates in its climate	
International Council on Mining and Metals (ICMM)	Consistent	change working group. As such, Anglo American has signed up to the organisation's Principles for Climate Change Policy Design. In summary, the principles for climate change policy design are: *provide clear policies for a predictable, measured transition to a long term price on greenhouse gas emissions *apply climate change related revenues to manage a transition to a low carbon future *facilitate trade competitiveness across sectors *seek broadbased application *be predictable and gradual *be simple and effective *support low-emission base-load generation technology development.	Anglo American provided commentary on drafts of this position through participation on the working group.
Chamber of Mines in South Africa	Consistent	Anglo American's CEO is a council member of the Chamber of Mines (CoM), which holds a range of positions on carbon policy issues. In general, the CoM seeks to ensure that environmental issues are addressed in a manner that enhances members' contribution to sustainable development and ensures that risks to the viability of the mining industry are identified and managed. The CoM was not supportive of the carbon tax as proposed.	Anglo American provided commentary into the process – the company is supportive of carbon mitigation mechanisms, provided they do not compromise socio-economic imperatives.

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

No

CC2.3e

Do you fund any research organizations to produce or disseminate public work on climate change?

Yes

CC2.3f

Please describe the work and how it aligns with your own strategy on climate change

Our climate change strategy has three main focus areas: driving operational excellence; investing in technology; and engaging and partnering with our stakeholders. FutureSmartTM represents our new drive to find a more sustainable approach to mining, through working with a range of partners including peers, research institutions and technology providers. Examples of partnerships include:

- •Anglo American's membership and position on the Executive Committee of the International Energy Agency Clean Coal Centre (IEACCC), which is a research organisation that focuses on clean coal technologies, many of which reduce the emissions associated with coal combustion and production. This organisation undertakes numerous research projects annually, predominantly as desktop reviews of technologies available, the status of each, and relevant legislation and makes this information available to its members and to the public to stimulate innovation and technology adoption.
- •Anglo American is a founding member, and holds a position on the Board of Governors, of the South African Centre for Carbon Capture and Storage (SACCCS). The SACCCS commenced in 2004 with desktop research into carbon capture and sequestration technology in South Africa and completed an atlas of carbon dioxide storage potential in the country in 2010. The organization is now working towards a pilot carbon dioxide storage project, which if successful will be followed by a demonstration scale project in 2020 and commercialisation of the technology in 2025.
- •Anglo American has invested in, and owns 20% of, MBD Energy in Australia, which is developing low-cost alternatives for reducing CO2 emissions with algae.

CC2.3g

Please provide details of the other engagement activities that you undertake

CC2.3h

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Anglo American's policy and position on climate change is approved by the General Management Committee before being tabled at the Board Sustainability Committee. Every business unit is responsible for ensuring that direct and indirect activities are consistent with the Group climate change policy and position. The Anglo American energy manager's forum, in which every business unit participates, provides a platform for discussions around specific activities. In some cases, position statements are specific to geographies and alignment efforts are based on the particular context of that process. For example, in South Africa, all business units participated in developing a single Anglo American position on the carbon tax to ensure alignment between different parts of the business.

CC2.3i

Please explain why you do not engage with policy makers

CC2.4

Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?

Yes

CC2.4a

Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

Anglo American supports:

- •a clear, global and binding agreement to mitigate the impacts of climate change, limit global warming to 2°C and enable actions at regional and national levels;
- •ending public subsidies for the production and consumption of fossil fuels, unless they are carefully and effectively targeted as a last resort at the poorest households in developing countries;
- •the use of market-based instruments, such as fair and well-designed carbon pricing based on sound facts, including the socio-economic incentive;
- •greater provision of public-private funding for research and development and for the deployment of CCS and carbon capture and reuse (CCR) technologies;
- •improved science-based understanding of physical climate risks, and for investment in adaptation measures, in particular to help build resilience in developing countries; and
- •an honest, informed, fact-based and open dialogue and engagement of all relevant parties, including utility companies, on how current fossil fuel producers and users can shape the future energy mix and be part of the transition to the low-carbon economy.

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Absolute target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
Abs1	Scope 1+2	100%	19%	2011	18774226	2015	Our overall targets for greenhouse gas (GHG)-emission reduction is 19%, against the projected business-as-usual (BAU) level in 2015.

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment

CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Abs1	80%	92.95%	Overall, our business is well on track towards achieving the 2015 19% target against BAU projections, with 4.2 Mt of avoided carbon emissions during 2014. This target, however, does not include the De Beers targets as it was only recently acquired (during the course of 2012) nor does it include Iron Ore Brazil's Minas Rio mine as it was only commissioned at the end of 2014 and is currently under-going ramp-up. At present, work is being done to assess, develop and align these divisions with the Group's targets; it is anticipated that they will be included in company's 2020 targets.

CC3.1e

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

Since their introduction, platinum, palladium and rhodium-based catalysts have delivered substantial reductions in harmful emissions from automotive internal combustion engines. Anglo American Platinum is the world's leading primary producer of Platinum Group Metals (PGMs). Anglo American Platinum has partnered with Ballard Power Systems, South Africa's power utility (Eskom) and South Africa's Department of Energy and participates in the London Hydrogen Network Expansion project in conjunction with the development of Proton Exchange Membrane fuel cells for the use in 'clean energy'. These fuel cells are batteries that generate electrical current from the reaction of hydrogen and oxygen with a platinum/palladium catalyst.

Hyundai has produced a fuel cell electric vehicle (FCEV) version of the ix35, the average carbon emissions across the range is 0.1902kg/km. Assuming that the vehicle travels 10,000 kilometres per year, this is equivalent to emissions of 1.9 tCO2e per vehicle per year. Hyundai aims to produce 1000 vehicles by the end of 2015, accumulating to an estimated 1902tCO2e of emissions avoided (by the end of 2016). Anglo American Platinum has also been involved in the commercial development of stationary fuel cells for housing. The Anglo American Platinum home generator project, went under trial in August 2014 in the rural community of Naledi Trust (powering 34 households). This non-grid technology is envisioned to, in future, be able to bring quality primary electricity to some of the 3.4 million South African homes that do not today have access to electricity. If the fuel-cell product displaces the fossil fuels that rural communities are burning, direct scope 1 emissions can be avoided.

Our Kumba Value-In-Use department continued with research on finding techniques and methods that can be employed to enhance downstream steel making processes. Anglo American Kumba Iron Ore has recently increased the lump ore to fine ore ratio to 63:37. This reduces the amount of sintering required on the product and hence reduces the scope 1 emissions associated with sintering Kumba's product. This is due to decreasing the fuel rate compared to using the concentrate directly in the sinter. The sinter plant would use less fuel (coke) decreasing the CO2 emissions. Sintering contributes approximately 4% of the emissions associated with the steelmaking process. By reducing the fines portion from 37% to 33% Kumba has able to avoid approximately 336 000 tCO2e emissions from its customers during 2014. The decrease in coke consumption (i.e. CO2 emissions) varies from plant to plant and is not linear with the amount of concentrate replaced by micro pellets as per Kumba's proposal. Typical concentrate additions is about 20% to 30%, if this is replaced with micro pellets the CO2 emissions will decrease with 91 kg/t of steel produced. The methodology used to calculate these avoided emissions was based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3, Chapter 4: Metal Industry Emissions. The methane GWP of 25 was used as per IPCC 4th assessment. It was assumed that all product sold in 2014 would be used for steelmaking and thus required to undergo sintering. Of the product sold the portion of the fines (33%) would be required to undergo sintering. CERs or ERUs are not considered by Kumba because emission savings are achieved and owned by a third party.

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	336	350000
To be implemented*	175	270000
Implementation commenced*	91	188000
Implemented*	325	420000
Not to be implemented	70	42000

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Processes	Air ventilation is critical to ensuring a safe working environment for our employees. These systems operate continuously (24hours a day), providing cool and fresh air to our underground operations, whilst diluting and removing flammable gasses and machine exhaust fumes. As a result air ventilation is a significant area of energy usage. Anglo American Coal and Platinum have made energy efficiency interventions to air ventilation, which include fan-speed reductions, improved fan inlet and outlet duct connections as well as the replacement of inlet guide vane, motors and gearboxes.	16998	Scope 2	Voluntary	7359705	5519	<1 year	11-15 years	As a result of these improved efficiencies, there has been a collective annual savings of about 1.8MW amount to about 1.3 million USD per annum, and as a result, is being driven around the group. These savings are sustainable and thus expected to continue until the end of the shaft's life.
Energy efficiency: Processes	Anglo American platinum has optimised compressed air supply to its Union Central and Thembelani underground	9000	Scope 2	Voluntary	588776	45998	<1 year	11-15 years	The process control system will be in operation for the remainder of the life of mine (expected 14 years).

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	mining operations by the implementation of a process control system that monitors and optimises air supply, thus improving efficiency and savings.								
Transportation: fleet	A voluntary fuel efficiency trial was run at Anglo American Kumba Iron Ore's Sishen mine involving the addition of a fuel additive to the diesel used onsite. The trial successfully achieved an annual saving of approximately 2900 m3 in diesel, directly reducing Anglo American Kumba Iron Ore's scope 1 emissions and indirectly reducing the scope 3 emissions. Scope 3: Fueland energy-related activities (not included in Scopes 1 and 2).	7772	Scope 1 Scope 3	Voluntary	3408678	898955	<1 year	16-20 years	The success of this trial has provided the business case for rolling this out to the remaining Anglo American Kumba Iron Ore operations further increasing emissions reductions across Anglo American Kumba Iron Ore with the potential application across all applicable Anglo American operations.
Transportation: fleet	Components of the Diesel Energy Efficiency Management System (DEEMS) programme were implemented at	7035	Scope 1 Scope 3	Voluntary	3085441	285188	<1 year	16-20 years	The process of optimization using the on-board diagnostic systems is an ongoing one and as such magnitude of saving

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	Anglo American Kumba Iron Ore's Sishen mine during the reporting year. DEEMS is a continuous programme of energy efficiency initiatives. Using haul truck on-board diagnostic monitoring systems, operating parameters including payload, empty travelling speed, loaded travelling speed, spotting time, dumping time and dumping idle time were adjusted, resulting in a saving of 2625 m3 of diesel and thus direct scope 1 emissions reduction.								may vary from year to year. The DEEMS programme will continue to result in new efficiency initiatives for the duration of its implementation. It also has the potential to be implemented across all applicable Anglo American operations. The annual monetary savings have been calculated on a diesel price of R12.77 per litre. Savings attributable to improved asset reliability have not been incorporated into this calculation.
Energy efficiency: Processes	In the reporting year, As part of an overarching steam trap maintenance programme, the Anglo American Platinum, Rustenburg Base Metals Refinery (RBMR) was able to improve Boiler efficiency through the evaluation of current steam trap performance,	5000	Scope 1	Voluntary	128794	18399	<1 year	21-30 years	As a result of the improved Boiler efficiencies, the RBMR has been able to reduce its coal demand. The steam trap maintenance programme is an ongoing initiative and can be expected to continue until life of plant, however savings made may vary from year to

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	identification of system leaks and steam trap cleaning.								year.

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Our Group Technical Standard (GTS 23) has been rolled-out across the business, and sets out the minimum requirements for carbon and energy performance management. Implementation of GTS 23 within the business units is supported by our Safety and Sustainable Development corporate function.
Dedicated budget for low carbon product R&D	Anglo American has launched a \$100 million fund to invest in platinum-based technology companies in South Africa. Platinum-based fuel cells provide a significant economic and environmental development opportunity for the country by facilitating the provision of clean, reliable and cost-effective power. In Australia, we hold a 19.2% interest in MBD Energy, which is undertaking applied research into an algal synthesiser process that involves entrapping CO2 from power station fuel gases for the production of biodiesel and other by-products.
Internal price of carbon	An internal price of carbon is used for the budgeting process for scope 1 emissions in South Africa, and as a downside risk for scope 2, Sensitivity testing against carbon pricing scenarios is done for coal.
Dedicated budget for energy efficiency	Each of our business units are required to budget for projects (and where necessary the capital requirements) to meet their energy and carbon emissions savings targets which have been decided through the implementation of ECO2MAN.
Internal incentives/recognition programs	All employees are eligible for the Anglo American Applaud awards, which includes categories for entries that include climate and energy initiatives.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication Status		Page/Section reference	Attach the document				
In mainstream financial reports but have not used the CDSB Framework	Complete	16-17; 33-35	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC4.1/AA AR CC E 2014.pdf				
In voluntary communications	Complete	66-72; 79	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC4.1/AA CC Section Assurance Statement 2014.pdf				

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation Risks driven by changes in physical climate parameters Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	In the 2014 and 2015 national budget announcements, the South African National Treasury confirmed the 2016 introduction of a carbon tax. The proposed pricing is R120/tCO2e with a 10% increase per annum until the end of 2019.	Increased operational cost	1 to 3 years	Direct	Very likely	High	The estimated exposure to carbon tax is R350 million (32198712 USD)	Anglo American's ECO2MAN energy and GHG management programme mitigates our exposure to carbon taxation by reducing operational GHG emissions by 4.2mt during 2014 (and ~105 million USD in energy savings throughout the Group). Through our ECO2MAN programme, we have set new standards on operation energy efficiency across the Group. An	An estimated 12 million USD has been invested in on energy savings projects, research, policy development and developing climate change fact bases in South Africa since 2011.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								example of this is our underground mine ventilation system optimisation initiatives, which through, reduced fan-speeds, optimized air flow, improved fan inlets and outlet ducts as well as other interventions, has allowed us to avoid an estimated 80 million ZAR (7359705 USD) per annum as well as 16998 tCO2e per annum in emissions. In addition, the possibility of reducing the utility's environmental levies to mitigate some of the impact of the carbon taxes is being discussed with the government. Carbon offset projects, in line with the government, will be pursued to further reduce emissions.	

Please describe your inherent risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	Anglo American has, in collaboration with research partners, run initial assessments on the susceptibility of some sites to the physical aspects of climate change. The findings of these assessments are often region/site specific but can be extrapolated to the majority of our operations to predict localized increases in temperatures of about 2-6 degrees Celsius by 2040/2050. Increase in temperature has direct implications for the safety of employees, requires additional cooling and	Increased capital cost	>6 years	Direct	More likely than not	Medium- high	Unknown	Direct management action has not been taken given the long-term and uncertain nature of the risk. Management action has been focused on understanding the potential changes and required monitoring and critical controls.	Costs of various adaptation studies have amounted to 494100 USD

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	ventilation equipment, may result in increased water scarcity, may have negative impacts on the success of rehabilitation efforts, and may result in changes to the spread of vector-borne diseases. Predicted temperature changes at our Venetia diamond mine are currently under further investigation, however the research suggests an increase in temperature is to be expected. This in conjunction with the predicted reduction in precipitation is likely to facilitate pooling of water promoting the mosquito								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	breeding cycle as well as the prevalence of typhoid and/or cholera if contamination occurs.								
Change in precipitation pattern	Availability of water is central to mining and thus has the potential to impact Anglo American's core business. Potential changes in precipitation patterns have been less certain in the climate change adaptation studies undertaken so far. However, in general, changes in rainfall variability may cause operational disruptions due to floods and droughts (which impact on energy security)	Reduction/disruption in production capacity	>6 years	Direct	More likely than not	Medium- high	As an indication of the potential impacts of extreme weather events, recent floods in Chile resulted in lost production of 2660 tons of copper over 12 days and the establishment of a \$2 million fund to support the reconstruction of Chanaral and El Salado.	Direct management action has been taken in relation to current rainfall variability involving developing and implementing water efficiency technologies to reduce dependency on water and projects to improve resilience against physical impacts of extreme weather events (e.g. Coal Australia's Rain Immunisation Project, which has involved improvements to infrastructure and operational processes to	Costs of various adaptation studies have amounted to 494100 USD

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	and risks to the health and safety of employees and local communities. As a result of extreme precipitation, flooding flood events recently occurred in Chile resulting in the loss of 12 production days at our copper operations, amounting to 2660 tons of lost production.							safeguard operations – and the safety of people – against extreme weather events). Management action has been focused on understanding the potential changes and identifying the critical controls and monitoring requirements.	

CC5.1c Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	There is an increasing risk of reduced consumer	Reduced demand for goods/services	>6 years	Direct	Unknown	Medium- high	Underlying EBIT for coal operations	We are participating in the development of carbon capture and	Our investment in clean coal technology

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	appetite given concerns over the role of coal combustion for energy, and therefore coal mining, in relation to climate change. Our coal business represented 9% of operating profit for 2014. 40% of our coal business by revenue relates to metallurgical coal used in the production of steel. However, there is limited substitution for metallurgical coal in steel making.						was 458 million USD in 2014.	storage and clean coal technologies various investments: We sponsor research to use algae to sequester carbon and for bioremediation. In Australia, we voluntarily contribute to the Coal 21 Fund for development of low emission technologies. In South Africa we are founding members of the Centre for Carbon Capture and Storage. Through the World Coal Association and the Coal Industry Advisory Board, we engage with governments to inform policy for the effective uptake of new technologies under the global platform for accelerating coal efficiency (PACE).	amounts to approximately 10million USD.

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	During 2013, regulations on the allowance for energy efficiency savings in terms of section 12L of the South African Income Tax Act as amended came into operation. Tax incentives were introduced for businesses that can show measurable energy savings. The 12L regulation allows for a R0.95/kWh tax allowance for energy savings and sets out the process for determining the significance of energy efficiency savings, and the requirements for claiming the proposed tax deduction. Energy security is a major risk to Anglo	Reduced operational costs	1 to 3 years	Direct	Likely	Medium	5520000 USD	This will require the third party (registered) Monitoring and Verification of all viable and/applicable projects within Anglo American's South African business units and/or operations. Such as the compressed air supply optimisation initiative at the Anglo American Platinum Union and Thembelani underground mines, as well as the Mine ventilation optimization initiatives at both our Coal and Platinum business units.	552000 USD

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	American, and in light of the 12.7% 2015 increase and a further proposed 12.6% (2016) tariff increase, our ECO2MAN programme affords us opportunities, demonstrated by ECO2MAN energy savings resulting in 105 million USD in avoided energy input costs. Opportunities are available for our South African business units to utilise the 12L tax incentive regulation, translating to a conservative \$5,520,000 (provided the benefits outweigh the cost of third party measurement and verification). With the potential of upcoming regulation requiring the submission of a 5year Energy Management Plan and annual								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	progress reporting, there is opportunity to align this with the ECO2MAN programme.								
Other regulatory drivers	The proposed carbon offsetting scheme in South Africa offers an opportunity for us to support social and development outcomes through innovative approaches to carbon offsetting projects though, for example, channeling capital to rural development projects, creating employment, restoring landscapes, reducing land degradation, protecting biodiversity, and encouraging energy efficiency and low carbon growth. In so doing, there is an opportunity to strengthen	Reduced capital costs	1 to 3 years	Direct	Likely	Medium			

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	relationships with community and leverage existing social spend.								

CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver Descri	ription Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
---------------------------	--------------------------	-----------	------------------	------------	---------------------	----------------------------------	----------------------	--------------------

CC6.1c

Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	International pressure on the reduction of GHG emissions from mobile and stationary	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Medium	An increased demand for PGMs for use in fuel cells is expected to cause an	Anglo American Platinum' is capitalising on this opportunity by actively promoting the	From the 20 million USD that was allocated to the PGM Development Fund in 2014,

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	sources driven by internal combustion engines is putting pressure for the development of alternative forms of energy conversion such as fuel cells. Since most fuel cell systems use PGMs as catalysts, the emerging fuel cell industry presents a major opportunity for the global platinum mining industry. Anglo American Platinum being the world's largest supplier of platinum has an opportunity to drive this market.						increase in the PGM basket price. An increased PGM basket price of 1% is expected to increase revenue by approximately 1.1%. Anglo American Platinum net sales revenue in 2014 was 5.1 billion USD, so an increase of 1.1% would amount to approximately 56.3 million USD.	demand for PGMs. This approach is aligned with Anglo American Platinum' energy and climate change strategy to increase commercial opportunities in its markets. Anglo American Platinum supports the PGM Development Fund which invests in platinum-based technology companies, many of which focus on using PGMs for solutions to the demand for energy storage and supply such as fuel-cell systems. Anglo American Platinum has also established longstanding research partnerships with	more than half was allocated to collaborative efforts to develop platinum-based fuel-cell technology. 12.4 million USD was invested in the underground fuel-cell locomotives; fuel-cell based rural electrification; and development of fuel-cell driven dozers.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Altergy, the US-based fuel-cell company, and with the South African Government on fuel-cell systems. In addition, Anglo American Platinum is piloting platinum-based fuel-cell technology in mining equipment, e.g. as an example of an alternative power system for underground locomotives. In 2014 Anglo American Platinum launched its world-first demonstration of a fuel-cell minigrid application for rural electrification. Both pilots are aiming to commercialise these technologies in South Africa, which would	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								enable local manufacturing and generate new jobs and a new skills base.	
Other drivers	The South African renewable energy bid program provided the opportunity for Anglo American to participate in the Khathu Concentrated Solar project. The 100MW project (which has achieved preferred bidder status) will be developed on property made available by Kumba Iron Ore and has been registered as a CDM project.	Other: Securing carbon offsets	3 to 6 years	Direct	Very likely	Medium	42million ZAR (3863845 USD)	Management of this involved the securement of the Khathu Solar project for CDM registration during the project initiation.	500000 ZAR (45998 USD)

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Anglo American has conducted several climate change and adaptation studies and no substantive opportunities have been identified, given the uncertainties around climatic patterns. Climate change predictions are often based on simulations that are run using various climatic models in conjunction with use historic data, these are then used to infer future trends. As a result the models and thus predictions cannot provide definitive predictions at a regional/site level of resolution. These predictions can only be used at a high-level and are most effective at providing a global perspective on trends. The studies run by Anglo American do however attempt to provide a more regional/ landscape perspective. Through this we are able to pick up distinctive trends on temperature however cannot get distinctive views on how rainfall, wind and humidity will change. It is because the potential opportunities associated with mining are indirect and have multiple dependencies on a variety of climatic conditions we are unable to confidently predict and quantify the value posed by climate change with regards to rehabilitation rates and quantity of water supply amongst others.

CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sat 01 Jan 2011 - Sat 31 Dec 2011	9347918
Scope 2	Sat 01 Jan 2011 - Sat 31 Dec 2011	9426307

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Not Applicable

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CH4	IPCC Second Assessment Report (SAR - 100 year)
CO2	IPCC Third Assessment Report (TAR - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Fuel/Material/Energy Emission Factor		Reference	
Electricity	1.07	metric tonnes CO2e per MWh	Country Specific - South	
Electricity	0.98	metric tonnes CO2e per MWh	Africa Country Specific -	
Electricity	0.39	metric tonnes CO2e per MWh	Australia Country Specific - Chile	
Electricity Electricity	0.64 0.13	metric tonnes CO2e per MWh metric tonnes CO2e per MWh	Country Specific - Peru Country Specific - Brazil	
Electricity	0.6	metric tonnes CO2e per MWh	Country Specific - United Kingdom	
Electricity	0.29	metric tonnes CO2e per MWh	Country Specific - Canada	
Electricity	1.07	metric tonnes CO2e per MWh	Country Specific - Namibia	

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	1.07	metric tonnes CO2e per MWh	Country Specific - Botswana
Electricity	0.59	metric tonnes CO2e per MWh	Country Specific - Zimbabwe
Diesel/Gas oil	2.67	metric tonnes CO2e per m3	Business unit specific – CoalAus
Motor gasoline	2.28	metric tonnes CO2e per m3	Business unit specific – CoalAus
Liquefied petroleum gas (LPG)	1.53	metric tonnes CO2e per metric tonne	Business unit specific – CoalAus
Natural gas	0.00215	metric tonnes CO2e per m3	Business unit specific – CoalAus
Diesel/Gas oil	2.68	metric tonnes CO2e per m3	IPCC
Motor gasoline	2.40	metric tonnes CO2e per m3	IPCC
Liquefied petroleum gas (LPG)	2.98	metric tonnes CO2e per metric tonne	IPCC
Natural gas	0.00215	metric tonnes CO2e per m3	IPCC
Other: Heavy fuel oil	3.13	metric tonnes CO2e per metric tonne	IPCC
Other: Light fuel oil	2.77	metric tonnes CO2e per m3	IPCC
Bituminous coal	2.62	metric tonnes CO2e per metric tonne	IPCC
Metallurgical coke	2.44	metric tonnes CO2e per metric tonne	IPCC
Waste oils	2.46	metric tonnes CO2e per m3	IPCC
Kerosene	2.83	metric tonnes CO2e per m3	IPCC
Petroleum coke	3.17	metric tonnes CO2e per metric tonne	IPCC
Other: Tailgas	0.00024	metric tonnes CO2e per m3	IPCC
Other: Non-renewable waste fuel	0	metric tonnes CO2e per metric tonne	IPCC
Other: Intermediate fuel oil	2.74	metric tonnes CO2e per m3	IPCC
Other: Marine gas oil	2.669	metric tonnes CO2e per m3	IPCC
Biodiesels	2.69	metric tonnes CO2e per m3	IPCC

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Biomass used as fuel	0	metric tonnes CO2e per metric tonne	IPCC
Wood or wood waste	0	metric tonnes CO2e per metric tonne	IPCC
Other: Methane flared	2.749	Other: metric tonnes CO2 per metric tonne CH4	IPCC
Other: Methane from coal mining	21	Other: metric tonnes CO2 per metric tonne CH4	IPCC

Further Information

The above mentions country specific electricity emissions factors that are representative of a country level average of the emissions factors, certain areas and sites within the country may slightly deviate from these site specific emissions factors.

Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

7976768

CC8.3

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

9294022

CC8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
F-gasses	Emissions are not relevant	Emissions are not relevant	After review, the contribution of F-gasses to Anglo American's carbon footprint was considered negligible.
N2O	Emissions are not relevant	Emissions are not relevant	After review, the contribution of N2O to Anglo American's carbon footprint was considered negligible.
CO2 emissions from spontaneous combustion (sponcom)	Emissions are not relevant	Emissions are not relevant	There is no internationally recognised methodology for calculating CO2 emissions from spontaneous combustion (sponcom).
Emissions from explosives detonation	Emissions are not relevant	Emissions are not relevant	The emissions have previously been assessed and found to be immaterial.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	Annual audits conducted by an external assurance provider operate on a 5% materiality threshold. There are occasionally errors in data associated with metering that fall below this threshold.
Scope 2	Less than or equal to 2%	Metering/ Measurement Constraints	Annual audits conducted by an external assurance provider operate on a 5% materiality threshold. There are occasionally errors in data associated with metering that fall below this threshold.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance complete

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC8.6a/AA Assurance Statement_2014.pdf	Page 71-72	ISAE 3410	100
Reasonable assurance	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC8.6a/AA Assurance Statement_2014.pdf	Page 71-72	ISAE3000	100

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to your reported Scope 2 emissions

Third party verification or assurance complete

CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC8.7a/AA Assurance Statement_2014.pdf	Page 71-72	ISAE3000	100
Reasonable assurance	https://www.cdp.net/sites/2015/72/772/Climate Change 2015/Shared Documents/Attachments/CC8.7a/AA Assurance Statement_2014.pdf	Page 71-72	ISAE 3410	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment		
Other: Total amount of energy used in million GJ	As part of our 2014 sustainability reporting process we also requested that the assurer audit energy data for expression of reasonable assurance.		

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Australia	3416229
Botswana	388759
Brazil	947445
Canada	252045
Chile	710294
Namibia	150586
Peru	4826
Rest of world	15965
South Africa	2075759
United Kingdom	8150
Zimbabwe	6703

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division By GHG type

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Kumba Iron Ore	665335
Iron Ore Brazil	50992
Coal: Australia-Canada	3509392
Coal: South Africa	694338
Copper	714937
Nickel, Niobium and Phosphates	896089
Platinum	547178
De Beers	885205
Exploration	1748
Corporate	3987
Vergelegen	286
Other Mining and Industries	7274

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
----------	--	----------	-----------

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	4941660
CH4	3035107

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
South Africa	6508519	6084227	480205
Australia	616110	752017	183492
Brazil	253985	1876667	1786587
Peru	91	142	0
Chile	997961	2511570	1599739
Zimbabwe	61929	104965	0
Botswana	569731	532458	0
Namibia	187162	174918	87459
Rest of world	57897	98418	0

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
United Kingdom	14608	21193	0
Canada	26024	134320	113957

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Kumba Iron Ore	544941
Iron Ore Brazil	15535
Coal: Australia-Canada	616319
Coal: South Africa	919646
Copper	998035
Nickel, Niobium and Phosphates	238437
Platinum	4816774
De Beers	1111809
Exploration	649
Corporate	27042

Business division	Scope 2 emissions (metric tonnes CO2e)
Vergelegen	1641
Other Mining and Industries	3189

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions (metric tonnes CO2e)

CC10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)

Information	

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

CC11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	17629646
Electricity	12292203
Heat	0
Steam	0
Cooling	0

CC11.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh

Fuels	MWh
Bituminous coal	982703
Metallurgical coke	624395
Diesel/Gas oil	12474504
Natural gas	161397
Liquefied petroleum gas (LPG)	247817
Motor gasoline	72356
Kerosene	6063
Petroleum coke	2762
Biodiesels	21372
Other: Heavy fuel oil	1940087
Other: Biomass	652609
Other: Marine gas oil	355443
Other: Intermediate fuel oil	82963
Other: Smaller quantity fuels used	5170

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
Supplier specific, not backed by instruments	4251440	Anglo American operates across many countries, sourcing energy from many grids/suppliers. As we cannot attribute energy consumption to specific grids/energy sources, the group's low carbon consumption is based on the country level energy mix. This makes the assumption that energy consumed in these countries is reflective of the energy mix.

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment	
Emissions reduction activities	19	Decrease	In mining emissions trend upwards year-on-year and our BAU was expected to amount to 21,470,790 tCO2e in 2014 without intervention. During 2014 Anglo American reduced its CO2e emissions by 4.2 million tonnes through our emissions reduction activities facilitated by the ECO2MAN programme. This reduction accounts for a 19% reduction from BAU with our scope 1 emissions amounting to 7,976,768 tCO2e and our scope 2 emissions amounting to 9,294,022 tCO2e.	
Divestment	0	No change	Anglo American did not make any divestments during the year 2014.	
Acquisitions	0	No change	Anglo American did not make any acquisitions during the year 2014.	
Mergers	0	No change	Anglo American did not participate in any mergers during the year 2014.	
Change in output	1.8	Increase	Anglo American's GHG emissions have increased from 17.1 million tonnes to 17.4 million tonnes due to increases in some operational activities, including the ramp up of Minas Rio mine in Brazil and increased waste stripping at Kumba Iron Ore.	
Change in methodology	0	No change	Methodology did not change during 2014.	
Change in boundary	0	No change	No changes in boundary.	
Change in physical operating conditions	0	No change	No changes in physical Operating conditions.	
Unidentified	0	No change	Not Applicable.	

Reason	Emissions value (percentage)	Direction of change	Comment
Other	0	No change	Not Applicable.

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.000639	metric tonnes CO2e	unit total revenue	9	Increase	Anglo American's emissions have remained level year-on-year, while revenue has decreased. Hence, the intensity per unit of revenue has increased.

CC12.3

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
114.2	metric tonnes	FTE employee	4	Increase	Anglo American's emissions have remained fairly stable year-on-year,

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	CO2e				with the decline in number of employees intensity per full time equivalent has thus increased.

CC12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
45.82	metric tonnes CO2e	tonne of ore processed	13	Decrease	Anglo American's tonnes of ore milled increased between the 2013 and 2014 reporting years due to factors owing to the natural progression of mining, whereby the older the mine is the more effort is required in order to maintain the amount of product produced (relatable to both decreasing grade as well as increased distances). Anglo American also experienced increases in some operational activities, including the ramp up of Minas Rio mine and Barro Alto in Brazil. Anglo American Thermal Coal also experienced a significant increase in the ore processed. However as a result of emissions and energy reduction/ efficiency initiatives, our scope1 and 2 emissions have remained fairly stable year-on-year.

Further Information

As a result of the nature of mining, it is expected that the older a mine is the more effort is required in order to maintain the amount of product produced (relatable to both decreasing grade as well as increased distances). As a result Anglo American benchmarks its annual emissions/energy performance, based on the calculated/predicted BAU for that year. Furthermore, as mining revenue is highly influenced by market prices for our products, revenue cannot be accurately used as

a benchmark for emissions intensity. This is because changes in revenue (in the mining context) can be relatively variable and can bias the perspective on emissions intensity even if employed emissions/energy reduction activities yield reductions. To demonstrate this we've used the 2013 reporting year's revenue to test for the change in intensity. Using a single/ stable revenue value, we find that our intesity remains fairly constant between the 2013/2014 reporting years, there is even a slight decrease in intensity by 1%.

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
--	-----------------	---------------------------	----------------------------	--	---	----------------------	-----------------------------

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased	Relevant,	658178	This category includes upstream (i.e., cradle-to-gate) emissions	53.5%	Not applicable

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
goods and services	calculated		from the production of products purchased or acquired by Anglo American's Platinum (Platinum), Nickel Niobium & Phosphates (NNP), Coal South Africa (Coal SA) and Kumba Iron Ore (Kumba) business units. Activity data: The Platinum data was based on the purchase of explosives obtained from supply chain records of the quantities purchased. CoalSA data was based on the quantity of lime/limestone produced and/or consumed on site for stone dusting and water treatment. Kumba identified explosives, steel, tyres and cement as its top four purchased goods using supplier invoices to obtain the total masses in tonnes. NNP data relates to explosives purchased. Emission factors: The emission factors and their respective sources are provided below: Explosives: 2.51 tCO2e/tonne product (CCalc Tool Manual Version 1.1 – Carbon Calculations over the Life Cycle of Industrial Activities). Steel: 1.9 tCO2e/tonne product (Greenhouse Gas Abatement in Energy Intensive Industries, page 5, Integrated steel mill average) Tyres: 1.2 tCO2e per tonne (Michelin Annual Report - 2013 Performance, page 43) Cement: 0.893 tCO2e/tonne product (Pretoria Portland Cement - http://ppc.investoreports.com/ppc_ar_2013/downloads/ppc-ar-2013) Lime/Limestone: 0.75 tCO2e per tonne (Tier 1 IPCC 2006 Guideline methodology) NNP explosives: 0.17 per tCO2e and 0.55 per tonne N20 GWP values: Carbon dioxide = 1 Methodology: The direct supplier emissions are estimated by multiplying the quantity of purchased product by an emission factor associated with the production of the product. Calculations were performed in accordance with ISO 14064 Part 1 and the Scope 3 Accounting and Reporting Standard by The Greenhouse Gas Protocol Initiative. Assumptions: No assumptions were made in the calculation of the emissions in this category. Allocation methods:		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Operational Control (Platinum, Nickel Niobium & Phosphates and CoalSA) Financial Control (Kumba)		
Capital goods	Relevant, calculated	8510	This category includes all upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by Anglo American's Kumba Iron Ore Business Unit (Kumba). These emissions can be attributed to the purchase of new equipment and new vehicles associated with new project development. Kumba indicated that 33 new vehicles were purchased during this reporting period. Activity data: The number and cost associated with the acquisition of each new vehicle was sourced from supplier invoices. Emissions factors: The emission factors and their respective sources are provided below: Mining Vehicle Purchases: 293.43 tCO2e per mining vehicle (As a specific emission factor for a mining vehicle is not available, an emission factor was calculated based on the following premise: Kumba's total expenditure on mining vehicles was divided by the total revenue in the reporting year from the vehicle supplier. The percentage of revenue that the supplier gained from purchases made by Kumba was multiplied by the supplier's total emissions for the reporting year to determine the quantity of emissions generated by Kumba per vehicle purchased) GWP values: Carbon dioxide = 1 Methodology: The amount of vehicles purchased in the reporting year was multiplied by the emission factor for mining vehicles purchased to determine the tCO2e associated with Capital Goods. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: The transport of the mining vehicles to Kumba's facility was not included in the calculation. Emission factor per mining vehicle produced was	7.00%	Anglo American Platinum reported zero emissions for this category as it did not start-up any new mines/operations/purchase new vehicles during the reporting year. Due to the complex nature of the embedded carbon within the capital goods generally procured by the Anglo American Coal South Africa business unit (i.e. a dragline or haul truck), no capital goods were investigated however future scope 3 emissions inventories will attempt to include embedded carbon from the manufacture and processing of materials in the production of these assets.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			calculated on the basis of revenue allocation that Kumba contributed to the supplier of the vehicles. Allocation methods: Financial control approach		
Fuel-and- energy- related activities (not included in Scope 1 or 2)	Relevant, calculated	1239810	This category includes emissions related to the extraction and/or production of fuels and energy purchased and consumed by Anglo American's Platinum (Platinum), Coal South Africa (CoalSA) and Kumba Iron Ore (Kumba) business units that are not accounted for in Scope 1 and Scope 2. For Platinum this includes the emissions from coal, diesel, petrol, LPG and paraffin. Transmission and Distribution losses have been accounted for under Scope 2 emissions and have not been included in this section. CoalSA only deems the extraction and/or production of diesel and petrol to be material and includes emissions from the refining of diesel and petrol from crude oil. Kumba includes in its report the extraction, production, and transportation of diesel, LPG and petrol (motor gasoline), AVGAS, used oil as well as electricity transmission and distribution losses. Activity data: The activity data was obtained from supply chain records of the quantity of each type of fuel purchased and electricity consumed. Emission factors: The emission factors and their respective sources are provided below: Platinum Coal: 0.2909 kgCO2e/kg; (Defra, 2011). Diesel: 0.5644 kgCO2e/litre; (Defra, 2012). Petrol: 0.4638 kgCO2e/litre; (Defra, 2012). LPG: 0.1868 kgCO2e/litre; (Defra, 2013). Paraffin: 0.5271 kgCO2e/liter; (Defra, 2012). Kumba Diesel: 0.5787 kgCO2e/litre; (DeFRA, 2014). Petrol: 0.4504 kgCO2e/litre; (DEFRA, 2014). LPG: 0.3978 tCO2e/tonne; (DEFRA, 2014.) AVGAS: 0.524kgCO2e/litre; (DEFRA, 2014.) Used oil for combustion: 0.599 tCO2e/m3; (DEFRA, 2014. Electricity: 0.04 tCO2e/MWh (Eskom Supplementary & Divisional Report 2014) GWP values:	47.00%	The Tier 2 (RSA country specific) emission factor employed by CoalSA (for diesel and petrol) is one that was given to CoalSA verbally and is a confidential number specific to South African industry.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Carbon dioxide = 1 Methodology: The quantity of fuel consumed in the reporting year was multiplied by the emission factor associated with the extraction, production, and transportation of that fuel. The quantity of electricity purchased was multiplied by the transmission and distribution emission factor of the South African electricity grid. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: No assumptions were made in the calculation of the emissions in this category. Allocation methods: Operational Control (Platinum and CoalSA) Financial Control (Kumba)		
Upstream transportation and distribution	Relevant, calculated	290640	Only Diesel and Petrol have been considered as material to Platinum. Diesel and Biodiesel are material to NNP. Coal SA's material T&D: Transport of product from respective operations, or from the Rapid Loading Terminal, to the Richards Bay Coal Terminal via Rail within South Africa. Anglo American Kumba Iron Ore factored in diesel along with other products which were billed as purchased transport services in kilometres. Activity data: The activity data was obtained from supply chain records of the quantity of each type of fuel purchased. Emission factors: The emission factors and their respective sources are provided below: Platinum Diesel: 0.5644 tCO2e/1000 litres (Defra, 2012) Petrol: 0.4638 tCO2e/1000 litres (Defra, 2012) CoalSA Electric rail: 14.18 gCO2e/net t-km (Transnet) Kumba Heavy Articulated vehicle: 0.9946 kgCO2e/vehicle km, (DEFRA, 2014) NNP Diesel: 2.431 kgCO2e/1000 litres Biodiesel: 2.603 kgCO2e/1000 litres GWP values: Carbon dioxide = 1 Methodology: The total quantities of diesel and petrol used for the transportation and distribution of goods were multiplied with the respective emission factors. The	53.5%	Anglo American Platinum deemed only Diesel and Petrol as the fossil fuels that are most material in this category because previous investigations demonstrated that the amounts of grease and lubricating oil were less than 2% of the total emission from the transportation and distribution of goods, hence deemed immaterial. Moreover allocation is complex as the transportation and distribution service providers service a multitude of clients.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			emission factor for a Heavy Goods Vehicle was divided by an assumed 30m3 volume of the purchased goods transported per trip to get the emission factor in terms of volume and then multiplied by a single distance travelled from Sasolburg to Kumba's operations. The Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) accounting and Reporting Standard Assumptions: Only diesel and petrol have been included for the estimation of emissions Only electric rail emission rates were applied as diesel rail contributed an insignificant 0.21% to this export line. It was assumed that all purchased goods are transported to Kumba's operations in a Heavy Articulated Vehicle >33 tonne. The tanker delivery capacity was assumed to be 30m3 for all goods being transported to the operations. All transportation of diesel was assumed to originate from Sasolburg, South Africa. The distance from Sasolburg to Sishen was assumed to be 542 km. The distance from Sasolburg to Kolomela was assumed to be 580 km. The distance from Sasolburg to Thabazimbi was assumed to be 302 km. Allocation methods: Operational Control (Platinum, NNP and CoalSA) Financial Control (Kumba)		
Waste generated in operations	Relevant, calculated	79242	This category includes emissions from third-party disposal and treatment of waste that is generated by Anglo American Platinum (Platinum) Coal South Africa (CoalSA), Nickel, Niobium & Phosphates (NNP) and Kumba Iron Ore (Kumba) owned and/or controlled operations during the reporting year. Activity data The activity data on waste quantities disposed of was obtained from Platinum's Safety, Health and Environment (SHE) Database. Kumba Supply chain records were utilised to obtain the total volume of lubricant consumed at each of the operations whilst the	53.5%	Not applicable

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			amount of waste generated per person in the reporting year was estimated from data provided by the Institute of Waste Management South Africa. Emission factors: The emission factors associated with the waste generated in operations for the reporting year are: Land filling (i.e. transport to landfill site): 0.0367 tCO2e/tonne waste (EPA 2002) Lubricants: 2.62 kgCO2e/litre (DEFRA 2014) Waste disposal: 0.17 tCO2e/tonne waste (US Environmental Protection Agency) NNP Waste disposal: 0.745 tCO2e/tonne waste GWP values: Carbon dioxide = 1 Methodology: The quantity of waste disposed of, was multiplied by the emission factor associated with landfilling, combustion of lubricant, waste water treatment and non-hazardous solid waste disposal. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) accounting and Reporting Standard. Assumptions: Due to lack of suitable information on the construction and operation of various municipal sewage treatment facilities CoalSA assumed that all facilities are anaerobic, deep (>2m) collection lagoon type facilities. It was assumed that the average density of the waste lubricant was 825kg/m3 (http://www.machinerylubrication.com/Read/29319/measuring-relative-density). It was assumed that the average amount of waste generated per employee at Kumba's operations was 0.7kg per day. (Institute of Waste Management Southern Africa) Allocation methods: Operational Control (Platinum, Nickel Niobium & Phosphates and CoalSA) Financial Control (Kumba)		
Business travel	Relevant, calculated	19661	This category includes emissions from business-related employee travel in vehicles operated by 3rd parties, including air travel (local and international flights) and terrestrial vehicular travel. Activity	53.5%	Use of vehicles on operations / service offices (and the associated diesel / petrol

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			data: Activity data on air travel was obtained directly from the Anglo American travel agent. The number of flights and destinations was used to estimate distances travelled by aircraft. Car rentals and claimed kilometres for business travel by road were obtained from the travel agent and the company's financial system. The monetary value of claimed kilometres and an average rate was used to calculate km's travelled. Emission factors: NNP air travel: <500km: 0.165 kgCO2e/km 500-3700km: 0.094 kgCO2e/km >3700km: 0.108 kgCO2e/km Platinum Long haul air travel: 0.1314 kgCO2e/km (Defra, 2012) Short haul air travel: 0.1149 kgCO2e/km (Defra, 2012) Domestic air travel: 0.2012 kgCO2e/km; (Defra, 2012). Car travel: 0.2339 kgCO2e/km; (Defra, 2012). Car travel: 0.2339 kgCO2e/km; (Defra, 2012). Car travel: 0.2339 kgCO2e/km; (Defra, 2012). Can travel: 0.352kgCO2/km (GHG Protocol). Long haul First class air travel: 0.352kgCO2/km (GHG Protocol). Long haul Business air travel: 0.352kgCO2/km (GHG Protocol). Long haul Economy air travel: 0.153kgCO2/km (GHG Protocol). Short haul First class air travel: 0.153kgCO2/km (GHG Protocol). Short haul Business air travel: 0.153kgCO2/km (GHG Protocol). Short haul Economy air travel: 0.102 kgCO2/km (GHG Protocol). Car Hire: 0.207 kgCO2/km (GHG Protocol). Car Hire: 0.207 kgCO2/km (GHG Protocol). Short haul business flights: 0.126 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.126 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.126 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.231 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.231 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.126 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.231 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.241 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.241 kg CO2e/passenger.km (DEFRA 2014). Short haul business flights: 0.241 kg CO2e/passenger.km (DEFRA 2014). Short haul		consumption) is included into the scope 1 emissions of each respective operation (reported as tCO2e from fossil fuels).

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) accounting and Reporting Standard. Assumptions: CoalSA assumed all cars to have 3 way catalysts (IPCC 2006 Guideline) Kumba assumed all cars to be medium sized with unknown fuel type Allocation methods: Operational Control (Platinum, CoalSA and Nickel Niobium & Phosphates) Financial Control (Kumba)		
Employee commuting	Relevant, calculated	62569	This category includes emissions from the transportation of employees between their homes and their worksites in vehicles not owned or operated by Anglo American. Activity data: Information taken from the report "Anglo American Platinum Employee transport subsidy plan" 31 August 2012. The distance travelled by employees from home to work, and the number and type of employees working at each operation were obtained from a study conducted in 2013 and was used to estimate Anglo American's Kumba Iron Ore emissions. Emission factors: Platinum Average car (unknown size or fuel): 0.233 kg CO2e/km (Defra, 2012). Minibus Taxi: 0.300 kg CO2e/ km (Defra, 2012). Bus: 0.150 kg CO2e/ passenger.km (Defra, 2011). Rail: 0.115 kg CO2e/passenger.km (Defra, 2011). Rail: 0.118 kgCO2e/km; (DEFRA, 2014). A taxi (Specification sheet of Toyota Quantum 2.7GL 14 seater bus): 0.000022 kg CO2e/passenger.km; (DEFRA, 2014) GWP values: Carbon dioxide = 1 Methodology: Number of employees and approximate distances and methods of travel used was obtained from in-house employee transport studies. The distance travelled by the specific method was multiplied with the appropriate emission factor from Defra 2012 (Anglo American Platinum) Defra 2014 (Anglo American Kumba Iron Ore) to obtain the emissions.	38.00%	Not applicable

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) accounting and Reporting Standard. Assumptions: Assumptions were made in terms of the distances travelled by employees based on the finding of the internal studies. Allocation methods: Operational Control (Platinum) Financial Control (Kumba)		
Upstream leased assets	Not relevant, explanation provided	0	Not applicable	100.00%	This category includes emissions from the operation of assets that are leased by Anglo American and its business units and not included in the scope 1 or scope 2 inventories. This is reported to be zero as any property that may currently be leased out is fully managed and as such incorporated into the scope 1&2 inventories.
Downstream transportation and distribution	Relevant, calculated	4965853	Anglo American Platinum's products are taken by air to the Rand Refinery in Anglo American owned helicopters. From the Rand Refinery the products are transported by flight to the relevant customers. Kumba Iron Ore's products are transported by railway from Sishen and Kolomela to Saldanha, product from Thabazimbi is transported to Vanderbijlpark and Newcastle. The product due for international export is transported by sea vessel. Anglo American's Coal South Africa product is transported domestically by railway and a combination of rail and sea vessel for internationally exported products. Activity data: The activity data for this category comprises sources of air, land and sea transportation including helicopters, long and short haul flights,	47.00%	Not applicable

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			domestic rail as well as export by ship. Emission factors: Helicopter flights: 523.26 kg CO2e/hour based on 170 litres/hour and 3.078 kilogram CO2e/litre (Defra 2012) Platinum Air Domestic: 0.426 kg CO2e/tonne.km (Indirect, Defra 2012) and 2.065 kg CO2e/tonne.km (Direct, Defra 2012). Air Long-haul international: 0.641 kg CO2e/tonne.km (Direct, Defra 2012). CoalSA Domestic rail: 0.042ktCO2e/tkm (Transnet) International Ocean Freight: 0.0078ktCO2e/tkm (IPCC) Kumba Rail: 0.059 kgCO2e/tonne.km (DEFRA, 2014) Shipping: 0.0025 kgCO2e/tonne.km (DEFRA, 2014) GWP values: Carbon dioxide = 1 Methodology: With regard to the helicopter trips, the total hours travelled was estimated, which was then multiplied by the relevant emission factor in kgCO2e/hour. The weight of the product transported and distance travelled was multiplied by the relevant emission factor. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol. Assumptions: An assumption was made that rail emissions were negligible for Platinum due to immaterial emissions factor. Kumba made the following assumptions: All of the product which is transported via ship is transported via a Bulk Carrier 200,000t + dry weight tonnage (dwt) type of ship classification used in DEFRA The rail emission factor used from DEFRA could be adjusted for the South African rail services by dividing the emission factor by the UK grid emission factor (GEF) and then multiplying it by the South African GEF. Allocation methods: Operational Control (Platinum and CoalSA) Financial Control (Kumba)		
Processing of sold products	Relevant, calculated	112705905	This category includes emissions from the processing (by third parties/consumers) of sold intermediate products. This processing	38.00%	CoalSA reported zero for this category because, coal is

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			occurs subsequent to sale by Anglo American Platinum (Platinum), Coal South Africa (CoalSA) and Kumba Iron Ore (Kumba). Activity data: The activity data for this category includes emissions from: processing nickel for production of stainless steel; the production of copper wire from copper; the processing of refined PGMs and Gold as well as the production of steel from iron ore. Emission Factors: Stainless steel: 6.84 tCO2e/t steel smelted Copper wire: 0.1500 kgCO2/tonne copper Platinum: 33.78 kgCO2/ton Palladium: 46.75 kgCO2/ton Rodium: 76.80 kgCO2/ton Gold: 18.94 kgCO2/ton Other PGMs: 38.57 kgCO2/ton Iron: 1.35 tCO2e/tonne pig iron (2006 IPCC) Steelmaking: 1.46 tCO2e/tonne steel (2006 IPCC) Steel Products: 0.845 tCO2e/tonne ore Sintering Emission Factor: 0.202 tCO2e/tonne sinter (2006 IPCC) GWP values: Carbon dioxide = 1 Methane = 25 Sintering results in the emission of Carbon dioxide and methane. Methodology: The emissions associated with the processing of the respective materials were calculated by multiplying the mass of the product sold with the emission factor for the processing technique. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol. Assumptions: Conversion of pig iron to steel is assumed a ratio of 1:1. For conservative estimates, nickel produced is assumed to be used for stainless steel production (8% nickel content), as stainless steel production is the most energy intensive process of all nickel end-products. It is further assumed that the product will be recycled at least once during its lifetime. For conservative estimates, copper produced is assumed to be used for the production of copper wire, as the production of copper wire is the most energy intensive process for copper end-products. It is further assumed that the product will be recycled at least once		processed at plants on site / at operational level and thus all energy/fugitive related emissions are therefore included in Scope 1 and 2 reports. Any further emissions related to processing subsequent to this are deemed immaterial. The combined contribution of all other PGMs to the total of emissions associated with processing of sold products is regarded as negligible as they account for ~16% of total PGM production.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			during its lifetime. Platinum constitutes 50% of total PGM production, it is assumed that the energy involved in the manufacturing of auto-catalysts and jewellery is immaterial. Allocation methods: Operational Control (Platinum and CoalSA) Financial Control (Kumba)		
Use of sold products	Relevant, calculated	194208883	This category includes emissions from the use of goods and services sold by Anglo American. Anglo American's thermal coal product is utilised in the thermal coal powered generation of electricity, both domestically (in South Africa) and Internationally. Whilst our metallurgical coal is exported out (mostly) of Australia and to the rest of the world for steel production amongst others. Activity data: The activity data for this category comprises the metric tonnes of thermal and metallurgical coal product supplied to the various energy generators /providers and steelmakers across the world. Emission factors: Metallurgical coal: 3.06 Thermal coal: 2.03 GWP values: Carbon dioxide = 1 Methane = 25 Nitrous oxide = 296 Methodology: Equation 2.1 (Stationary combustion) of the IPCC 2006 Guidelines (Chapter 2, v2.2) was used to estimate the emissions from coal product sold to and used by the consumer. Emissions (GHG and fuel) is the result of Fuel Consumption multiplied by Emissions Factor (GHG and fuel) ,where: Emissions (GHG and fuel) is the emissions of a given GHG by type of fuel (kg GHG) Fuel Consumption is the amount of fuel combusted (TJ) Emissions Factor (GHG and fuel) is the default emission factor of a given GHG by type of fuel (kg gas/TJ). Assumptions: The carbon oxidation factor is assumed to be 1. Allocation methods: Operational Control (Platinum and CoalSA) Financial Control (Kumba)	33.00%	There are no material emissions directly associated with the use of the iron ore and PGMs post their processing as outlined in the previous category ("Processing of sold products").
End of life	Relevant,	719209	This category includes emissions from the disposal and end-	47.00%	In South Africa, ash/fly is

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
treatment of sold products	calculated		treatment of products sold by Anglo American's Platinum (Platinum), Coal South Africa (CoalSA) and Kumba Iron Ore (Kumba) business units . The end of life treatment of coal product (ash/fly post combustion in power stations) is disposal onto discard dumps. Platinum and most PGMs are recycled at end of life. Steel (product of iron ore) is also often recycled with the process involving smelting. Activity data: This data comprises the amount of iron ore sold in the reporting year based on sales records. Emissions factors: The emission factor associated with the end of life treatment: Processing of scrap metal in an Electric Arc Furnace: 0.08 tCO2e / tonne ore (2006 IPCC Guidelines) GWP values: Carbon dioxide = 1 Methodology: The amount of steel recycled was determined by multiplying the recycling rate (30%) with the total amount of steel produced. The amount of recycled steel was then multiplied by the number of times recycled (one) and finally multiplied by the electric arc furnace emission factor to estimate the emissions associated with end of life treatment. The Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Assumptions: A steel recycling rate of 30% (World Steel Association report from 2012). Number of times steel is recycled is once. All sold iron ore product is processed into steel. Allocation methods: Operational Control (Platinum and CoalSA) Financial Control (Kumba)		discarded on dumps and no further treatment is done, as a result this category is immaterial to CoalSA. The products of platinum (PGMs) are not often disposed of or treated, instead these usually remain as is or are recycled and as a result this category is reported as zero by Platinum.
Downstream leased assets	Not relevant, explanation provided	0	Not applicable	100.00%	Anglo American and its business units do not lease out their assets and as such this category is irrelevant in this respect.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Franchises	Not relevant, explanation provided	0	Not applicable	100.00%	The franchise category is immaterial to the Anglo American business model.
Investments	Relevant, calculated	1453531	This category includes scope 3 emissions associated with Anglo American's Coal South Africa (CoalSA) and Platinum (Platinum) investments in the reporting year. Non-managed (equity share) operations, Mafube Colliery (50%) and Cerrejon Coal (33%), are included with only the respective shared percentages of their emissions being reported. Activity data: The activity data consists on the quantities of PGM produced at the site of Joint Venture Companies. Scope 1 and 2 emissions from the Coal South Africa equity share operations are reported in this category. Emission factors: The applied emission factor is 1.4665 tCO2e/refined ounce of precious metal. (GHG intensity factor of Anglo American Platinum for 2014, i.e. the CO2 equivalent emissions / refined ounces). The reported direct scope 1&2 emissions were utilised for CoalSA's equity share investments. GWP values: Carbon dioxide = 1 Methodology: The PGM production of the Platinum joint venture mines was multiplied by the GHG intensity figure of Platinum for 2014 as well as the percentage shareholding in order to estimate the emissions from these operations. The CoalSA emissions were obtained from the Enablon database and multiplied by the shareholding percentage. Calculations were performed in accordance with ISO 14064 Part 1 and The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) accounting and Reporting Standard. Assumptions: No assumptions were made. Allocation methods: Operational Control (Platinum and CoalSA)	40.00%	Anglo American's Kumba Iron Ore primarily has investments in holding companies without any direct operational footprints and as such reports zero emissions for this category.
Other	Not	0	Not applicable	100.00%	Anglo American has no other

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
(upstream)	relevant, explanation provided				relevant/material upstream emissions.
Other (downstream)	Not relevant, explanation provided	0	Not applicable	100.00%	Anglo American has no other relevant/material downstream emissions.

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance Atta	tach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
--	--------------------	------------------------	-------------------	--

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy- related activities (not included in Scopes 1 or 2)	Emissions reduction activities	4.17	Decrease	The scope 3 emissions from this category decreased as a result of the emissions reductions activities implemented through the ECO2MAN programme. This programme of initiatives saw a 4.2mt decrease in emissions from 2013 to 2014 Any reduction in fuel consumption can be directly linked to a decline in that energy purchased and thus a decline in scope3 emissions.

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

Through our responsible sourcing programme, we aim to ensure that the goods and services we procure do not cause harm to individuals or the natural environment. We also collaborate with suppliers who can support us with business goals, such as improving safety performance and energy efficiency. The Anglo American Supplier Sustainable Development Code states "Suppliers are encouraged to collaborate with Anglo American to identify opportunities and should pay particular attention to improve the following:

□□ Energy consumption and greenhouse gas emissions". For example, we are working with two suppliers on haul truck fuel efficiency. High risk suppliers are audited against the requirements of the code and, where necessary, improvement plans are agreed and monitored. Suppliers are engaged with in relation to energy and carbon on a risk and opportunity basis (e.g. haul truck efficiency).

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend	Comment
		Most suppliers are engaged on a superficial level via self-assessment questionnaires that include a range of questions, including on energy and carbon. A small number of suppliers are engaged directly for the purposes of collaboration.

CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
We do not have any data	We do not have data on our suppliers' GHG emissions and climate change strategies.

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Dave Morris	Anglo American Group Head of Safety and Sustainable Development	Chief Operating Officer (COO)

Further Information

CDP 2015 Climate Change 2015 Information Request