

Module: Introduction

Page: Introduction

0.1

Introduction

Please give a general description and introduction to your organization

AngloGold Ashanti, one of the world's leading gold producers, has a portfolio of long-life, relatively low-cost assets with a variety of orebody types in key gold-producing regions around the world. AngloGold Ashanti produced 3.94 million ounces of gold in 2012 - an estimated of global production - making it the third largest gold producer in the world. AngloGold Ashanti has 21 operations located in 10 countries on four continents, together with a substantial project pipeline and a focused, global exploration programme. AngloGold Ashanti currently operates in South Africa, Argentina, Australia, Brazil, Ghana, the Republic of Guinea, Mali, Namibia, Tanzania and the United States. The bulk of its production came from deep level underground operations (30%) and surface operations (1%) in South Africa. Contributions from other countries were Ghana (12%), Australia (7%), Brazil (13%), Mali (8%), Guinea (6%), Tanzania (14%), USA (6%), Argentina (6%) and Namibia (2%). Headquartered in Johannesburg, South Africa, AngloGold Ashanti's primary listing is on the Johannesburg Stock Exchange (ANG). It is also listed on the following securities exchanges: New York (AU), London (AGD), Australia (AGG) and Ghana (AGA).

0.2

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

Sun 01 Jan 2012 - Mon 31 Dec 2012

0.3**Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Argentina
Australia
Brazil
Ghana
Guinea
Mali
Namibia
South Africa
Tanzania
United States of America

0.4**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(\$)

0.6**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 sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (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@cdproject.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.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Module: Management [Investor]

Page: 1. Governance

1.1

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

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

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

The Board Committee on Safety, Health and Environment has primary responsibility. This board has overview of environmental policy and strategy, including Climate Change. The Board Audit and Corporate Governance Committee oversees risk control, disclosure and hard return. The Executive Vice President (EVP): Business Sustainability reports to the CEO and has primary responsibility for Climate Change. He, along with the CEO and other members of the leadership team, play an integral role in championing and developing the company's strategy on climate change. Progress is reviewed on a regular basis at management meetings and at the quarterly meetings of the Board Committee on Safety, Health and Sustainable Development.

1.2

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

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Corporate executive team	Recognition (non-monetary)	Meeting emission reduction targets. The executive team is responsible for focusing strategic attention of all business units on improving climate change performance.
Energy managers	Monetary reward	Meeting energy efficiency and emission reduction targets. This focuses attention on emissions mitigation.
Business unit managers	Monetary reward	Meeting energy efficiency and emission reduction targets. Focuses attention on emissions mitigation.
Executive officer	Monetary reward	Performance bonus linked to company alignment with the climate change strategy.

Further Information

Page: 2. Strategy

2.1

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

2.1a

Please provide further details

AngloGold Ashanti has in place the systems necessary to assist management and its board to effectively manage the wide range of risks faced by the group's operations so as to promote the creation and preservation of shareholder wealth. The risk management system applies to all levels of the corporation, from operating and exploration sites to regions and the corporation as a whole. Any risk that can impact the business is included, from regulatory to financial, reputational, community implications, business interruption including weather events, environmental impacts and security of supply, including energy and water. In conducting its annual review of the effectiveness of risk management, the board considers the key findings from the ongoing monitoring and reporting process, management assertions and independent assurance reports. All key risks (threats and opportunities), including those of climate change, that have the potential to impact the objectives of the AngloGold Ashanti group, are covered by the policy and are identified and communicated. Regions, operations, projects and functions that are not yet compliant with the Policy Statement and Standard have six months from the date of issue of the Standard to conform. Recently acquired businesses have twelve

months from the date of acquisition in which to adopt and conform. The board reviews and approves the risk strategy and policies formulated by executive directors and senior management. Management is accountable to the board and has established a system of internal controls to manage significant group risk. This system assists the board in discharging its responsibility to ensure that the wide range of risks associated with the group's global operations are effectively managed in support of the goal to create and preserve shareholder wealth. Full reviews of risk controls and disclosure processes are undertaken at least annually. The risk management and reporting systems have been developed in line with the Turnbull Guidelines that apply to companies listed on the London Stock Exchange. This system also complies with the requirements of the King III code on corporate governance, International Standard ISO/DIS 31000 for risk management, and the Sarbanes-Oxley Act of 2002 (SOX, USA); the latter focuses on financial risk and misstatement. The risk management system is central to the group's strategic management processes and is the system whereby risks associated with group activities are methodically mitigated. The Risk and Information Integrity Committee was constituted in accordance with the South African Companies Act in 2008. The Chief Financial Officer and the CEO are both required by SOX to certify on Form 20-F that the group financial statements present a true and fair view of the group financial position, cash flows and operational results, in accordance with the US GAAP. All key components of the 'Enterprise Risk Management –Integrated Framework' issued by the Committee of Sponsoring Organisations of the Treadway Commission (COSO) are incorporated into the group's process to comply with SOX section 404. The risk management commitments are approved by the Risk and Information Integrity Committee and a full review of the risk, control and disclosure processes is undertaken annually to ensure that all additional requirements are incorporated into the system in the future. Risk exposure at operational level are consolidated at company level using the processes outlined above using a customised electronic information management system called AuRisk, which is monitored and audited. At an asset level, risk exposure is monitored at least monthly. Company-level risks are reviewed quarterly and reported to the Board Risk and Information Integrity Committee.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes

Integration is at an early stage and is developing over time. The numbering below reflects the points listed in the guidance notes.

i. The strategy has been influenced by the international climate change negotiations and government responses to these. Exposure to these international processes through the International Council on Mining and Metals has also been important. Specific regulatory processes to introduce carbon prices and other activities to address climate change in the jurisdictions in which we operate have had a great impact on the business strategy. Awareness of the company's role in society and our vision of being "the leading mining company" must necessarily include this challenge. A better informed understanding of our climate change related risks has played an important role.

ii. The risk of increased costs from carbon taxes and/or cap-and-trade schemes is the biggest current risk. A better understanding of the available global and national carbon budgets has focused our attention on the scale of emissions reductions likely to be required. We want to be a good corporate citizen, including complying with all legislation where we operate. Observation of climatic changes and the need to safeguard infrastructure are demonstrating the importance of

adaptation. Adaptation is likely to be a challenge for our operations and our host communities. Our climate change strategy is evolving to address these changing national and international circumstances.

iii. The company's short-term climate change strategy focuses on energy efficiency and reducing our absolute energy consumption, which has a direct impact on GHG emissions (99% of our emissions are energy-related), adoption of low-emission energy sources and on responding to national climate change response processes. Significant resources have been given to collaboration with like-minded companies and engagement with government agencies in climate change policy processes. In South Africa and Ghana particularly, there has been increased focus on integrated water management in response to varying rainfall patterns.

iv. AGA has initiated a long-term research programme into more efficient underground mining practices which incorporates a significant reduction in energy consumption as a primary requirement. AGA is assessing long-term energy and water security risks and building the necessary response plans. These include assessing low-emissions energy options, including natural gas, biomass, biofuels, solar, wind and hydropower. We are also assessing local climate change adaptation risks. In addition, we are moving to benchmark our energy and water performance for all aspects of our operations against international best practice.

v. Our focus is not on strategic competitive advantage but rather on being well prepared and being a good corporate citizen. We are not yet seeing strategic advantages over our competitors. We anticipate that moving early will enable the company to be able to adapt faster to increased carbon prices and to climatic changes.

vi. The most significant change has been the amount of management time given to determining the potential impact of a carbon price on our South African and Australian operations, and working this into our business planning process where our energy efficiency targets and associated operating plans are set for each operation. Mine expansion and M&A decisions have been subjected to stringent energy and water reviews. The scope and focus of our Technology Innovation Programme includes energy and water considerations.

2.3

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

Direct engagement
Trade associations

2.3a

On what issues have you been engaging directly?

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
Mandatory carbon reporting	Support	AngloGold Ashanti's engagement with policy makers takes place in response to public participation requests, as well as on the initiative of the company. We are also members of industry fora in each country in which we operate, include business-wide	We support requirements in Australia for mandatory reporting. Requirements in South Africa are under development and we are working through industry associations to ensure that these are not overly burdensome or duplicate existing requirements.

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
		associations such as Business Unity South Africa (BUSA) and the Colorado Association of Commerce and Industry and mining associations such as the, Chamber of Mines of South Africa and Instituto Brasileiro de Mineração (IBRAM). These associations support and commit to responsible practices and reduced impacts on the environment based on energy usage and carbon footprint reporting.	
Carbon tax	Support with minor exceptions	AngloGold Ashanti engages with government authorities at the relevant levels directly and through industry associations (see above), to understand government policies as they develop, and to communicate to regulators the company's views on impacts that carbon taxes may impose on companies.	We support in principle having a price on carbon. The South African Minister of Finance has announced a carbon tax to be implemented in 2015, however the details have not all been disclosed. Our engagement focuses on addressing unknown factors and proposing constructive solutions. We are concerned that the carbon tax comes on the back of a period of sustained electricity price increases which have imposed a heavy burden on AGA and have already resulted in decreased electricity consumption and therefore emissions. The Australian operations are focused on identifying energy saving initiatives and projects that will assist in reducing their carbon footprint. Through this process the region will continue to have efficient operations.
Energy efficiency	Support	The company engaged with the Department of Energy and Eskom specifically on concerns of energy security, and has demonstrated its commitment to sustainability by implementing energy efficiency projects that have reduced the power consumption of its operations in the South Africa Region. In addition, AngloGold Ashanti became the 49th partner in Eskom's 49M electricity saving campaign in July 2012. Endorsed by government and business partners, this initiative is intended to include 49 million South Africans.	The 49M campaign aims to encourage individuals to embrace energy saving as a part of the national culture and to join the global journey towards a sustainable future. The call to action is for every citizen to "lift a finger" because "all it takes is to switch off a light". The purpose of the campaign is to realise a 10% energy saving in order to maintain security of electricity supply over the next five years while Eskom boosts energy infrastructure and capacity.

2.3b

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

Yes

2.3c

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?
International Council of Mining and Metals (ICMM)	Consistent	<p>In 2010, ICMM members established a program of policy principles, leading practice and company commitments to contribute to working towards a low carbon economy:</p> <p>1) an integrated set of seven principles for climate change policy design that build on those contained in the 2009 policy:</p> <ul style="list-style-type: none"> •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 broad-based application •be predictable and gradual •be simple and effective •support low-emission base-load generation technology development. <p>2) three focus areas which address the climate change issues which are important to mining and metals companies:</p> <ul style="list-style-type: none"> •national climate policies and competitiveness •land use and adaption to the impacts of climate change •measurement, reporting and verification of net greenhouse gas activities. <p>3) a set of ICMM member company commitments. As a minimum, ICMM members accept their responsibility to:</p> <ul style="list-style-type: none"> •develop greenhouse gas emission reduction strategies and implement economic emissions reductions opportunities •ensure efficient use of natural resources •support research and development of low greenhouse gas emission technologies that are appropriate to the industry •measure progress and report results. 	AngloGold Ashanti argued for the need to have a proactive position on climate change and make extensive input into its design. This was done at Council and technical levels.
Business Leadership South Africa (BLSA)	Consistent	BLSA does not have a formal position on climate change but engages with the South African government on all issues that impact business, including climate change legislation and policy positions.	The company is a member of the BLSA Board and participates actively in BLSA engagements with government.
Industry Task Team on Climate	Consistent	Principles of climate policy: •Predictable and gradual: Be set out well in advance and the pace and	AngloGold Ashanti was a founder member of the organisation and is an

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?
Change (ITTCC)		<p>progress of introduction of policies and abatement targets should be clearly laid out to reduce investment uncertainty and maximise the effectiveness of each policy by allowing businesses to transition efficiently to a low carbon economy.</p> <ul style="list-style-type: none"> •Development focused: Be part of a coherent set of policies covering energy policy, industrial policy, economic growth policy and social welfare policies that reinforce South African development priorities: creating decent work, economic and social transformation and maintaining sustainable energy supply. •Broad based: Include a diverse selection of policy levers to effectively target the multiple, complex market failures within climate change thereby lowering the overall cost of emissions reduction. •Sending a clear price signal: Ensure that any carbon price signal is consistent, transparent and designed in a manner so that it influences producers and consumers, such that emissions and carbon consumption is reduced and the incentive to develop low carbon technologies is increased. •Revenue neutral: Focus on changing behaviour, not raising revenues – it must be a priority of government to return revenues raised by a carbon price to households and businesses through lump sum payments or tax reductions to reduce the negative impacts of climate change policies. •Trade competitive: Ensure local industries retain their international competitiveness in the absence of a global response to maintain environmental integrity, avoid carbon leakage, loss of competitiveness and adverse economic and welfare impacts. •Simple and effective: Include measures which effectively reduce emissions and are simple to implement and administer. Simple policies increase transparency; reducing opportunities to exploit loopholes and reducing administration costs. •Supportive of technology: Encourage investment in low carbon choices directly (e.g. with innovation incentives), to accelerate the development of new technologies, reducing the cost of abatement and promoting the growth of a 'green' sector. •Climate ready: Include adaptation measures to mitigate the adverse physical impacts of climate change such as severe weather, drought and floods and rising sea levels. 	<p>active member of the ITTCC Council. We argued successfully for a position consistent with the ICMM position.</p>
National Business Initiative (NBI)	Consistent	<p>NBI aims to mobilise business as a whole towards the formulation of a business climate change response strategy through: increased awareness,</p>	<p>The company is an active participant in the NBI's climate change committee</p>

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?
		voluntary collective action, policy engagement, mitigation activities, adaptation, and promotion of capacity building initiatives through partnerships. Using a Climate and Energy focus, NBI seeks to mobilise business leadership in support of sustainable development with an emphasis on environmental issues (including mitigation and adaptation efforts), through information sharing, advocacy, partnership-building and practical initiatives. Using the mitigation and adaptation approach, we engage business with related stakeholders by encouraging sustainable practices via the Energy Efficiency Accord and the Carbon Disclosure Project.	though not on the Board
Colorado Association of Commerce and Industry	Consistent	CACI opposes legislation to aggressively reduce carbon emissions (i.e., "carbon tax," "cap and trade") without an accurate assessment of cost and benefits as well as consideration of technological capabilities for mitigating the impact on carbon-intensive industries, which will have a negative impact by driving up energy costs to all consumers, discouraging economic growth in Colorado and driving jobs to other states.	The company is a member of the association's board and executive committee.

2.3h

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?

The company climate change strategy was developed collaboratively, involving all parts of the business and all regions, ensuring their buy-in. There is regular communication between climate change lead people at the national and corporate levels to ensure that there is a common understanding of new developments and approaches to them. The primary forum is the Community and Environment Steering Committee (CESC). All environmental and community professionals, including those tasked with climate change, meet at a biennial Community and Environment Workshop. Most of the national mining associations of which AGA is a member are members of the International Council on Mining and Metals (ICMM) and support its Climate Change Principles, which helps to ensure coherence between country positions. AGA has advocated inclusion of the Principles into national legislation, further supporting policy coherence. The South Africa Region has a formal energy strategy which addresses long- and short-term concerns in partnership with institutions like the Industry Task Team on Climate Change. The realisation that electricity supply was at a crisis point in 2008 emphasised the need for AGA to continue the good work done by the business units within the region on energy. The company came up with strategies to offset the annual increases per unit cost, which, in the short-term involve efficiency improvement projects under the Eskom Integrated Demand Management (IDM). and internal funding mechanisms, whilst looking at new mining methods with advanced technologies in the long-term.

Further Information

AngloGold Ashanti is a member at Board level of many industry associations not listed above. To avoid repetition we have not listed associations that are members of the International Council on Mining and Metals.

Page: 3. Targets and Initiatives

3.1

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

Intensity target

3.1b

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
AGA	Scope 1+2	100%	30%	metric tonnes CO2e per ounce of gold	2007	0.77	2022	Because gold grades are reducing over time, an intensity target has the effect of reducing absolute emissions over time.

3.1c

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
AGA	Decrease	67			The variation in emissions is

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
					calculated using publicly available production forecasts. The target set is only for Scope 1 & 2 emissions.

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
AGA	33%	0%	The company's GHG emissions per ounce have increased, not decreased, since 2007. Mining methods are becoming increasingly energy intensive as mine depth, complexity and haulage distances increase at our maturing mines. Much of our energy usage (37.6%) was in South Africa, where our deep underground mines are particularly energy intensive. The strike action in the latter half of the year distorted our energy performance to some extent since, although production was curtailed, our baseload energy consumption largely continued to protect our assets and provide safe working conditions for essential services.

3.2

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

No

3.3

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

Yes

3.3a

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		
To be implemented*	8	108400
Implementation commenced*	1	4500
Implemented*	7	230100
Not to be implemented		

3.3b

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)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Low carbon energy installation	Industrial heat pumps - High density residence heat pumps: AGA completed and started the project in 2010 to install heat pumps at high density residences to Heat Pump technology uses an vapour compression cycle to heat a refrigerant that is then used to reject heat on the condenser coil. Water from a storage facility is circulated in the coil and heated to the required level of the user. The process reduces the electrical power requirement by 2/3 of the conventional direct heating of an electrical element (Electrical Energy) with (Thermal Energy).	11274	808000	1448000	1-3 years
Behavioral change	Employee and community awareness campaigns have been conducted at AGA's operations, especially in Ghana, Brazil and South Africa.	3000	300000	30000	<1 year
Transportation: fleet	All upgrades to more energy efficient models; Worldwide application of super-clean diesel to the HME fleet	200000	500000	5000000	4-10 years

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Processes	Thermal ice storage: In order to assist with the peak demand periods that the local electricity supplier Eskom experiences, AngloGold Ashanti SA Region implemented a thermal ice storage unit at Moab Khotsong mine. The unit uses glycol to freeze water inside the unit, this is then used to switch off fridge plants during the evening peaks of 18:00 to 20:00.	3252	500000	3017000	4-10 years
Energy efficiency: Processes	Optimisation of compressed air networks: Most of the underground rock breaking within the South Africa Region is done using pneumatic drills that required 4.5 bar pressure for drilling. The total Vaal River ring is approximately 37 km of 750 NB piping to circulate on average between 80 - 100 kg/s. The goal of the project was to install a high/low pressure split for consumers like Metallurgical plants, that require constant pressure, and shafts that can fluctuate between morning and evening peaks. Also included in the project was the installation of underground control valves at Moab Khotsong, TauTona and Kopanang mines.	1280	1579000	3318000	1-3 years
Energy efficiency: Processes	Refinement of underground cooling system controls: Due to the depth of the South Africa Region mines, our operations have high underground temperatures coming from the rock also known as Virgin Rock Temperatures (VRT). Based on this refrigeration plants have been designed to sustain the required cooling for employees underground on the peak thermal energy load (Peak Production). If a mine is still in ramping up or closing down stage the potential exists to optimize the cooling system to the specific load requirements. This is done by controlling auxiliaries like circulating pumps and cooling tower fans with Variable Speed Drives (VSD's). Application at SA Kopanang mine	7812	949000	1207000	1-3 years
Low carbon energy installation	In the compression of air substantial amounts of heat is generated that is rejected to atmosphere with traditional finned heat exchangers in cooling towers. Instead of rejecting the heat to atmosphere a heat exchanger is placed between change house warm water vessels and used to heat the water to the required temperatures (Thermal Energy). The process reduces the required electrical energy from conventional electrical elements. Application at SA Moab Khotsong mine.	3486	214000	362000	1-3 years

3.3c

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

Method	Comment
Compliance with regulatory requirements/standards	In both Australia and South Africa, energy efficiency standards are specified for specific activities. In Australia our operations are required to report improvements in energy efficiency performance. In South Africa, these regulations are currently under discussion.
Dedicated budget for energy efficiency	Especially at our South African mines, which consumed 38% of our total global electricity consumption in 2012 but was responsible for 68% of our global carbon emissions, annual absolute and energy efficiency performance improvements are set and a dedicated budget provided.
Dedicated budget for other emissions reduction activities	AGA is implementing low carbon power sources wherever feasible, eg for community applications in remote locations (Mali, Guinea, Sunrise Dam, etc). Specific budget provision is made on the basis of need and technology availability.
Employee engagement	At our South African and our Ghanaian operations considerable attention is given to engaging employees throughout our organisation in energy efficiency and footprint reduction activities, eg toolbox talks to employees, specific functions for wives and families, community radio segments.
Internal incentives/recognition programs	A number of employees at our operations globally are focussed on energy performance and incentivised through KPIs and associated bonus payments, eg Brazil, Continental Africa Region, South Africa.
Marginal abatement cost curve	in both Australia and South Africa, where carbon pricing is a reality or forthcoming, we have constructed marginal abatement cost curves for each affected mine and use these curves to prioritise emissions reduction activities.
Other	The Technology Innovation Consortium for our deep underground mines in South Africa is investigating opportunities for significantly improved energy efficiency, with a concomitant impact on GHG emissions.

Page: 4. Communication

4.1

Have you published information about your company'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	Page/Section reference	Attach the document
In other regulatory filings	pp 20, 24, 25, 65-66	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-

Publication	Page/Section reference	Attach the document
(complete)		4.1-C3-IdentifyAttachment/2012 Form 20F.pdf
In voluntary communications (complete)	pp -b, 2, 15, 97-106, 107, 142, 144, 168, 169	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/AGA-online-sustainability-report-2012.pdf
In mainstream financial reports (complete)	pp -b, 27, 32, 37, 41, 47, 50, 51, 54	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/AGA-annual-integrated-report-2012.pdf
In mainstream financial reports (complete)	pp -b	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/AGA-annual-financial-statements-2012.pdf
In other regulatory filings (complete)	pp 3, 4, 6, 7	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/AGA Australia Public Report for the Energy Efficiency Opportunities Act 2012 (3).pdf

Module: Risks and Opportunities [Investor]

Page: 5. Climate Change Risks

5.1

Have you identified any climate change risks (current or future) 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

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
Int	International	AngloGold Ashanti (AGA) emits greenhouse gases (GHGs)	Increased	6-10 years	Direct	Very likely	High

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	agreements	directly by its operations, and indirectly via the external utilities from which it purchases power. Currently, a number of international and national measures to address or limit GHG emissions, including the Kyoto Protocol, the Copenhagen Accord and the Durban Platform, are in various phases of discussion or implementation in the countries in which the company operates. In particular, the Durban Platform commits all parties to develop a global mitigation regime which could take effect in 2020, with the specific terms of that legally binding accord, including individual targets, to be finalized by 2015. These, or future, measures could require AngloGold Ashanti to reduce its direct GHG emissions or energy use or to incur significant costs for GHG emissions permits or taxes or have these costs or taxes passed on by electricity utilities which supply the company.	operational cost				
Aus	Cap and trade schemes	Australia has a regulatory framework that consists of a reporting mechanism (National Greenhouse and Energy Reporting Act 2007 (NGER) and a cap and trade system (Clean Energy Future legislation). At its core is a carbon pricing mechanism that started in July 2012 and will then change to a cap and trade scheme in 2015. This scheme could pose a risk to AGA of increased operational costs.	Increased operational cost	1-5 years	Direct	Very unlikely	Medium
SA	Carbon taxes	The Finance Minister announced during his 2013 Budget Speech in parliament, the plans to introduce this long-awaited carbon tax on 1 January 2015, adopting the proposed a tax rate of R120 per tonne of CO2 equivalent, with an initial tax-free exemption threshold of 60%. Further details were provided in a policy paper published on 2 May 2013. This might cause AGA's costs to increase substantially, although the precise impact on the company's operations cannot yet be determined because some important details have not yet been provided by the government.	Increased operational cost	1-5 years	Indirect (Supply chain)	Very likely	Medium-high
Amcas	Cap and trade schemes	Jurisdictions including Brazil and Colorado (United States of America) are considering GHG trading schemes and/or other regulation of GHG emissions, though the precise impact on AGA's operations cannot yet be determined.	Increased operational cost	Unknown	Indirect (Supply chain)	Likely	Medium-high
Rpt	Emission reporting obligations	In Australia, USA, Brazil and South Africa, legislation has already been introduced or is under consideration for emissions reporting. AGA has good records of emissions that	Increased operational cost	Current	Direct	Virtually certain	Low

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		are being refined progressively. There is some risk associated with the quality of emissions data where there are significant technological challenges in measurement, e.g. low concentration methane from underground operations.					
Tax	Fuel/energy taxes and regulations	In all jurisdictions where we operate, fuel taxes apply. Other energy taxes and regulations apply in Australia, USA, Brazil and South Africa. The possibility of increased regulation poses the risk of the unknown cost and economic impact on our business and on individual national economies. Government tax regimes could also impact on fuel and energy availability and supply chains.	Increased capital cost	Current	Direct	Virtually certain	High
Env	General environmental regulations, including planning	The company must comply with a host of environmental regulations in each of the countries in which it operates. These regulations are constantly changing, especially in South Africa, Australia and Brazil, usually imposing even more stringent requirements. Requirements for environmental impact assessments, biodiversity protection and mine closure, in particular, increase amongst others, adaptation risks.	Increased operational cost	Current	Direct	Virtually certain	Low-medium
Reg	Uncertainty surrounding new regulation	Uncertainty surrounding expected legislation and regulations on emissions mitigation and carbon pricing especially in South Africa, Brazil, USA and Australia causes delay to investment decisions and variations to operational focus as alternative measures are floated for discussion. We also need to devote significant time to government influencing activities to ensure practical outcomes for business and the environment.	Increased capital cost	1-5 years	Direct	Virtually certain	High
Reg2	Lack of regulation	In South Africa particularly, deregulation of the electricity market is proceeding slowly with many of the requisite regulations on for example, transmission costs, access for Independent Power Producers to the national grid, etc. not yet finalised.	Increased operational cost	Current	Direct	Virtually certain	Medium-high
Reg3	Other regulatory drivers	To fully address climate change, a full policy suite is required. where national governments choose to implement only some aspects of the policy suite, government intervention can potentially introduce bias and unintended consequences for business, including incentivising perverse actions. This risk is present in all jurisdictions in which we operate.	Increased operational cost	Current	Direct	Very likely	Medium-high
RenE	Renewable energy regulation	Eskom, the South African electricity utility, is required to include a percentage of energy from renewable sources in its	Increased operational	Current	Indirect (Supply	Virtually certain	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		mix. This is more expensive than the established coal-based infrastructure, which increases the cost of electricity.	cost		chain)		

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

(i) Potential financial implications of the risk before taking action

ID: Int The Durban Platform commits all parties to develop a global mitigation regime, to take effect in 2020, which could include company targets. This could have the effect of forcing stringent emissions caps on AGA, which could lead to early closure or even shutdown of our emissions intensive operations in South Africa in particular, and require significant capital investment to meet requirements at our other operations, including significant expansion of R&D spend.

ID: Aus The carbon tax is imposed on the company's energy (i.e. natural gas and diesel) suppliers and this is passed on to AGA so there has been a direct and immediate cost increase.

ID: SA The precise impact on the company's operations cannot yet be determined because some important details have not yet been provided by the government. Our 2012 emissions in South Africa were 3.1 Mt. Assuming that Eskom passes through the full tax (this may not happen as the government has not clarified this issue) and that the full 60% rebate applies, the tax will be in the region of $3.1 \text{ Mt} \times 40\% \times \text{R}120/\text{t} = \text{R}150\text{m}$.

ID: Rpt Except in the case of having to report diffuse, low-concentration emissions, the financial implications of additional reporting requirements are low. In most cases, the regulations are likely to require data that is already captured for management purposes, so there is only a small administrative cost involved. In some cases, a requirement for additional data may actually spur better management.

ID: Amcas, Tax, Env, Reg, Reg2, Reg3 The risks in each of these instances relate to uncertainty in regard to potential legislation or regulation and to changes to current legislation and regulation. By its very nature the financial implications of these uncertainties cannot be determined. As noted under ID: Reg, uncertainty itself imposes a cost as a result of delays, exploration of alternatives and government advocacy activities.

ID: RenE The renewable energy component of the electricity tariff is increasing over time.

(ii) Methods used to manage the risks

ID: Int; Aus; SA; Rpt; Amcas; Tax; Env; Reg; Reg2; and Reg3 In all countries in which it operates, AGA is focussed on reducing its greenhouse gas emissions footprint as quickly as possible. Because more than 95% of the company's emissions are derived from fossil fuel use, reducing energy costs has an immediate and direct impact both on our bottom line and on our GHG emissions profile. The energy efficiency focus was initially in South Africa, but has in recent years spread to other jurisdictions in which we operate. AngloGold Ashanti engages with government agencies directly and through industry associations (e.g. International Council for Mining and Metals, Minerals Council of Australia, Western Australia Chamber of Minerals and Energy, Instituto Brasileiro de Mineração, Chamber of Mines of South Africa, National Business Initiative (South Africa), Business Unity South Africa, Colorado Association of Commerce and Industry) to advocate regulatory

provisions that are not detrimental to business and the mining industry in particular. These associations also keep the company updated on policy and regulatory trends.

ID: RenE The company supports in principle moves to a more varied energy mix and to greater use of renewables though the policy increases the company's costs in the short-medium term.

(iii) The costs associated with these actions

ID: ALL Our government influencing budget spend on the above activities in 2012 exceeded US\$3M. Also, our mitigation spend on these activities exceeded US\$30M.

5.1c

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

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
A	Change in mean (average) temperature	Increased temperatures can cause adverse operating impacts on major plant and equipment. In some cases, ambient temperatures may exceed cooling equipment operating parameters, requiring it to be replaced. Higher temperatures can also hinder rehabilitation efforts and result in a number of health and safety risks, including an increased risk of wildfires.	Increased operational cost	Unknown	Direct	Virtually certain	Medium-high
B	Change in precipitation extremes and droughts	Extreme weather events have the potential to cause significant damage to livelihoods and property, and thus be costly to the company. In the recent past, floods and droughts have disrupted the operations at some of AngloGold Ashanti's mines. For example, unprecedented heavy rains in February and March 2011 in Australia flooded the Sunrise Dam Gold Mine and forced a temporary shutdown of operations. The flood event reduced underground production for four months and open-pit production for six months, and full costs were incurred despite the shutdown and slow-down. Operations at our Cripple Creek & Victor Gold Mine in Colorado, USA continued to be affected by a severe drought in the Colorado River Basin. The lack of water reduced percolation through the heap leach pad, curtailing production and productivity.	Reduction/disruption in production capacity	Current	Direct	Virtually certain	Medium-high

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
C	Induced changes in natural resources	The adverse impacts of climate change on communities in close proximity to AngloGold Ashanti's operations could cause significant distress, especially in developing countries and particularly the poorest countries in which AngloGold Ashanti operates. In particular, competition for scarce water resources could mean further emphasis on providing water to communities and even on the company's ability to access sufficient water. Food and energy security are likely to be increasing challenges as well. Risk exposure due to increased disease prevalence in communities is not necessarily limited to a specific population, and has the potential to have a direct bearing on the wellbeing of company workforce, site staff and their families.	Wider social disadvantages	Unknown	Direct	Very likely	Low-medium
D	Change in mean (average) precipitation	In Ghana, AGA's operations depend on hydroelectric power supplied by the state-controlled Volta River Authority (VRA). During periods of below average inflows from the Volta reservoir, electricity supplies from the Akosombo Dam, the VRA's primary generation source, may be curtailed. This has occurred in previous years (2006 and the first half of 2007). This can result in intermittent or no electricity supply and increased costs, either as a result of the VRA seeking additional, more costly sources, or AGA generating its own power.	Increased operational cost	Unknown	Indirect (Supply chain)	More likely than not	Medium-high
E	Change in precipitation pattern	Altered rainfall patterns potentially affect the company's operations as water containment measures have generally been built in line with historic climatic patterns.	Increased operational cost	Unknown	Direct	More likely than not	Medium-high

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

(i) The potential financial implications of the risk before taking action

A: Change in mean (average) precipitation Changes in average temperatures have the potential to affect the operating envelopes of critical equipment items, e.g. increased temperatures will lead to higher cooling and refrigeration costs and potentially require increased refrigeration capacity in some of the world's largest refrigeration plants at our South African underground operations. If their capacity becomes insufficient, owing to higher ambient temperatures, the cost of upgrading

or replacing them would be significant. We are still investigating the likely impacts on operational infrastructure, performance and associated costs. Higher temperatures may affect the effectiveness of rehabilitation programmes, many of which have been developed over many years at great cost to the company. Additional research will impose a direct financial cost. Providing air conditioning for longer hot seasons and providing additional cooling equipment for health and safety purposes as well as allowing more comfortable working conditions will impose an additional cost to the company. Measures to prevent or combat fires also impose additional costs on the company.

B: Change in precipitation extremes and droughts High rainfall events can lead to flooding and disruption of mining and transport operations, amongst other consequences. Droughts have longer-lasting impacts and are more difficult to prepare for. AGA is still investigating the likely impacts on operational infrastructure, performance and costs.

C: Induced changes in natural resources Adverse climate change impacts are likely to impact severely on adjacent communities especially in developing countries. In particular, competition for scarce water resources could require extensive investment in infrastructure. We are still investigating likely impacts on specific communities and expected costs of adaptation and remediation activities.

D: Change in mean (average) precipitation During periods of limited electricity availability in Ghana, the grid is subject to disturbances and voltage fluctuations which can damage equipment. Increased power prices negatively impact operating costs and cash flow.

E: Change in precipitation pattern Alteration of structures to accommodate changed rainfall patterns is potentially costly.

(ii) The methods used to manage this risk

ID: A; B; C; D; E: Mines are long-term investments, with the result that mine planning, operation, and closure processes already incorporate management of extreme climate events. We plan to assess the climate exposure risks for all of our operations on a site by site basis and implement the necessary adaptation plans. This project is still being scoped and is due for commencement later this year. This project will also be extended to address likely impacts on communities adjacent to the mines and possible adaptation strategies, where needed.

iii) The costs associated with these actions

ID: A; B; C; D; E: The scoping study is expected to cost ~ZAR5M and is then to be followed with further detailed assessments on a site by site basis leading to adaptation and remediation interventions. These are yet to be costed.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
1	Other drivers	Supply chain risks: Mining operations and projects are vulnerable to supply chain disruption. AngloGold Ashanti's supply chain will potentially be directly impacted by climate change. The company's operations and development projects could be adversely affected by both shortages and long lead	Increased operational cost	1-5 years	Indirect (Supply chain)	About as likely as not	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		times to deliver strategic spares, critical consumables, mining equipment and metallurgical plant. Such goods include cement, oil, refrigerants and chemical reagents. These are supplied by industries that are vulnerable to climate change. Suppliers are expected to increase their prices to offset carbon taxes and other carbon pricing mechanisms and to pass on other costs associated with mitigating risks associated with climate change.					
2	Increasing humanitarian demands	Increased pressure from neighbouring communities struggling with disease, crop failure and the depletion of natural resources.	Wider social disadvantages	Unknown	Indirect (Supply chain)	Very likely	Low-medium
3	Other drivers	There is pressure from investors and lenders to reduce the company's exposure to regulatory measures and to reduce its direct and indirect carbon emissions. It is possible that the company's market valuation could be impacted based on its perceived exposure to climate change-related risks.	Reduced stock price (market valuation)	Unknown	Direct	More likely than not	High
4	Reputation	If the company is perceived to be ignoring climate change risks this is likely to impact its reputation. If the mining industry as a whole is perceived to be a poor performer, the company's reputation will be also be affected, though to a lesser extent. However, AGA has taken a strong position within the mining industry and in public, promoting the need for urgent action on climate change and sometimes leading national debates on mitigation and adaptation priorities and policy mechanisms, especially in South Africa.	Inability to do business	6-10 years	Direct	Unlikely	Low-medium

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

(i) The potential financial implications of the risk before taking action

ID 1: Fuel, energy and consumables including diesel, heavy fuel oil, chemical reagents, explosives, tyres, steel and mining equipment consumed in mining operations, form a relatively large part of the operating costs and/or capital expenditures of any mining company. AngloGold Ashanti has no influence over the cost of these consumables, many of which are linked to some degree to the price of oil and steel. Fluctuations in oil and steel prices have a significant impact on operating costs and capital expenditure estimates and, in the absence of other economic fluctuations, could result in significant changes in the total expenditure estimates for new mining projects or render certain projects non-viable at AngloGold Ashanti. Import restrictions, such as those introduced by the Argentinian government in 2011 (these were not related to climate change, but illustrate the impact that restrictions can have), can also delay the delivery of parts and

equipment. In the past, the company and other gold mining companies experienced shortages in critical consumables, particularly as production capacity in the global mining industry expanded in response to increased demand for commodities. AngloGold Ashanti has experienced increased delivery times for these items. Shortages have resulted in unanticipated price increases and production delays and shortfalls, resulting in a rise in both operating costs and in the capital expenditure that is necessary to maintain and develop mining operations. It is becoming abundantly clear that resource availability and pricing are inextricably linked across the resource continuum.

ID: 2 A changing climate is likely to impact severely on adjacent communities, especially in developing countries. Our mines are often the major source of income over a very large area. In particular, competition for scarce water resources could require extensive investment in infrastructure. We are still investigating likely impacts on specific communities and expected costs of adaptation and remediation activities.

ID: 3 Investor interest in climate change is growing and broadening. If this changes to pressure to make operational changes, the costs are potentially very high.

ID: 4 AGA has worked hard to build a reputation as being a proactive, constructive contributor to the climate change response debate, pushing for ambitious yet realistic targets. This is expected to stand its reputation in good stead.

(ii) The methods you are using to manage this risk

ID: ALL(1; 2; 3; 4) AngloGold Ashanti has developed a new Sustainability Strategy that has a core requirement to work together with host communities to jointly build sustainable futures. A major project was carried out during 2008/9 to identify and, where possible, quantify, all of the company's climate change-related risks. This has helped the company to understand the risks it faces, as well as the opportunities it has, and these are now being communicated as the opportunity arises. Increasingly detailed footprint data is being published in the interests of transparency and to demonstrate that the company has a good understanding of its contribution to global climate change. The link between company valuations and those aspects of climate change that can affect these valuations are complex and still being investigated. It is necessary to focus on the increase in operating costs from legal compliance and the potential reduction in revenue through lost production as a result of the physical impacts of climate change. There is also the potential for a competitive edge that can be gained from anticipating regulation, prior to the need being identified.

iii) The costs associated with these actions

ID: ALL (1; 2; 3; 4) We have not yet begun to cost management action associated with addressing these risks.

Page: 6. Climate Change Opportunities

6.1

Have you identified any climate change opportunities (current or future) 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 physical climate parameters
- Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
SAR	Carbon taxes	1. Carbon offsets presents an opportunity to AngloGold Ashanti with the anticipated introduction of a carbon tax to South Africa. AGA could generate offsets from energy efficiency initiatives or the adoption of renewables at its operations in South Africa or perhaps from other operations throughout Continental Africa. The terms and conditions for possible offset approval are likely to be announced by the South Africa Government later in 2013.	Reduced operational costs	1-5 years	Direct	Very likely	Low-medium
SAR1	Fuel/energy taxes and regulations	In 2010 we at AngloGold Ashanti commenced a large technology innovation project that aimed at safer, more productive and energy efficient deep underground mining. This project could cost >\$1B but provide extensive energy and cost benefits (these will be quantified as the projects are specified in more detail).	Reduced operational costs	>10 years	Direct	Very likely	High
AUS	Cap and trade schemes	In July 2012 the Australian Government introduced a fixed price cap and trade scheme moving towards full market pricing in 2015. AGA could gain benefits from carbon offsets as this market develops, however the Opposition parties, which are likely to assume power in late 2013, have indicated that they would abolish this scheme.	Reduced operational costs	6-10 years	Direct	Unlikely	Low-medium

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

The potential financial implications of the opportunity ID: AUS About 86% of the company's gold production comes from developing countries. Pending the regulatory requirements for carbon trading in Australia (Emissions trading scheme —On 1 July 2015, the carbon price will transition to a fully flexible price under an emissions trading scheme, with the price determined by the market), existing requirements in Europe present opportunities for carbon trading both internally and externally. In this regard, if the project meets the international criteria, it will likely be cheaper (by avoiding intermediaries and their costs) to trade verified credits within the company. In addition, there are opportunities to sell credits to companies based in Europe and elsewhere. A study was conducted where carbon trading opportunities were assessed on seven parameters:

- Availability of information opportunity information;

- Capital cost required for the implementation of the project;
- Return on investment;
- Payback periods;
- Energy consumption reductions;
- GHG emission reductions; and
- Ease of implementation.

ID: SAR1 Future energy consumption and possible carbon emissions caps are a critical constraint on the Technology Innovation Project, with a view to introducing technology with simultaneous cost and energy savings benefits.

ID:SAR Every possible opportunity for investigating carbon offset credits is being pursued.

ii) The methods you are using to manage this opportunity

ID: SAR Every opportunity to generate carbon credits is being investigated. The initial motivation is usually an opportunity to improve energy efficiency. However, if an identified project has potential to earn carbon credits according to the CDM rules or similar, this will be investigated further. Owing to the complexity of the carbon credit landscape, this component is always outsourced.

ID: SAR1 AGA is partnering with a consortium of worldwide development partners with global reach, who will mutually benefit from project success. The project is staged to ensure that progress can be measured and benefits accrued.

ID:AUS All possibilities for generating carbon credits from our worldwide operations are being considered.(iii) The costs associated with these actions

ID: SAR Total cost to AGA of carbon credit generation has been < ZAR10M to date.

ID: SAR1 Costs of the Technology Innovation Consortium project are not yet forecast. However, these are being ramped up progressively as components of the various technologies under investigation demonstrate likely successful outcomes. ID:AUS Costs are yet to be incurred.

6.1c

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

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
ARG	Change in mean (average) temperature	AngloGold Ashanti has operations in the southern part of Argentina, where the average annual temperature at its operations is below 10 degrees Celsius. The predicted increase in temperature in Argentine Patagonia will reduce heating costs at the company's mine operations.	Reduced operational costs	1-5 years	Direct	Likely	Low-medium

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

(i) The potential financial implications of the opportunity Cerro Vanguardia mine is situated in the southern part of Argentina, where the annual temperature is <10 degrees Celsius. The predicted temperature increase will reduce the energy required for heating and hence operational costs.

(ii) The methods used to manage this opportunity The opportunity is managed by adapting equipment operating protocols on the basis of prevailing weather conditions.

(iii) The costs associated with these actions No additional costs would be incurred, except for minor control system adjustments.

6.1e

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

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
A	Changing consumer behaviour	Uranium is a by-product of some of AngloGold Ashanti's operations in South Africa. Increased demand for nuclear power as a substitute for carbon-based electricity presents an opportunity.	Increased demand for existing products/services	6-10 years	Direct	Very likely	Medium-high
B	Increasing humanitarian demands	Enhanced relationships with key stakeholders as grass-roots adaptation projects have been developed, and working with host governments and industry to develop wide-ranging adaptive capacities and technology changes.	Wider social benefits	6-10 years	Indirect (Supply chain)	More likely than not	Low-medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

(i) The potential financial implications of the opportunity ID: A AngloGold Ashanti produces uranium oxide concentrates (U3O8) as a by-product of its gold mining operations. The Fukushima disaster of 2011 in Japan has resulted in a slow-down in some locations in the construction of new nuclear power capacity, and in moves away from nuclear power in some countries. However, the company considers that nuclear power has a good outlook in the medium- to long-term and the

financial implication of this opportunity lies in a positive influence that uranium prices will rise. In 2011, AGA invested in a company with significant uranium production potential, and acquired the company completely in 2012. ID: B Equalising relationships with local communities has reputation and longevity benefits for our mining operations. However, these are difficult to quantify financially.

(ii) The methods you are using to manage this opportunity ID: A AngloGold Ashanti is the largest uranium producer in South Africa and because of the expected demand for nuclear fuel, AGA will explore opportunities to increase its uranium production, especially in South Africa. This strategy includes acquisition of refining assets and other production opportunities. ID: B The opportunities driven by humanitarian demand are being approached with respect for our host communities to maintain long-lasting relationship.

(iii) The costs associated with these actions The 2011 transaction referred to in (i) cost ZAR205M/US\$30M. The 2012 transaction cost US\$335M. In respect of new opportunities, full project assessment methodologies are applied to each acquisition opportunity. ID: B Costs will vary according to the nature of joint initiative

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1

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

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Mon 01 Jan 2007 - Mon 31 Dec 2007	1088000	3423000

7.2

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

7.3

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

Gas	Reference
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
Other: CFC-11	IPCC Third Assessment Report (TAR - 100 year)
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Aviation gasoline	2.54	metric tonnes CO2e per m3	NGA Factors 2008
Bituminous coal	2.47	metric tonnes CO2e per metric tonne	IPCC2006
Distillate fuel oil No 6	3.35	metric tonnes CO2e per m3	IPCC2006
Diesel/Gas oil	2.93	metric tonnes CO2e per m3	IPCC2006
Liquefied petroleum gas (LPG)	2.97	metric tonnes CO2e per metric tonne	NGA Factors 2008
Natural gas	2.56	metric tonnes CO2e per litre	IPCC2006
Lubricants	2.81	metric tonnes CO2e per m3	IPCC2006
Motor gasoline	2.50	metric tonnes CO2e per m3	IPCC2006

Page: 8. Emissions Data - (1 Jan 2012 - 31 Dec 2012)

8.1

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

Operational control

8.2

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

1245000

8.3

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

3344000

8.4

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

Yes

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
Land clearance	Scope 1	Land clearance has been excluded from all operations because of the scientific uncertainty around measurement and the non-material contribution of land clearance to AGA's carbon footprint.
Explosives	Scope 1	Explosives are excluded to avoid double accounting because we include emissions from explosives' source materials.
Process emissions	Scope 1	AGA does not have material process emissions.

8.5

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 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Data Gaps Metering/ Measurement Constraints Other: Published Emission Factors	With a number of operations in remote locations, it is difficult to ensure that full disclosure is occurring. However, a rigorous internal audit program is progressively removing shortfalls in approach. There is some uncertainty as to whether the emissions factors used for fuels in the different countries of operation are the most current. Emissions from land clearance and explosives were determined in a comprehensive GHG emissions study carried out in 2008/9 and were found to be immaterial. The quantification of direct emissions from land clearance activities is under review.	Less than or equal to 2%	Data Gaps Assumptions Metering/ Measurement Constraints	Where isolated instances of immaterial emissions exist, eg with respect to regional office buildings, these emissions are not included. AGA relies on advice from regulators in countries with national electricity grids to provide conversion factors between quantity of electricity consumed and resultant emissions. AGA reports on a calendar year basis and sometimes, regulators do not provide latest information in time for reporting. (In these instances, data will be restated in subsequent years.) AGA has real time check metering installed at most but not all grid supply points.

8.6

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

Third party verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 80% but less than or equal to 90%

8.6b

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

Type of verification or assurance	Relevant standard	Attach the document
Reasonable assurance	ISAE3000	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-8.6b-C3- RelevantStatement/Assurance Statement.pdf

8.7

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

Third party verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

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

Type of verification or assurance	Relevant standard	Attach the document
Reasonable assurance	ISAE3000	https://www.cdproject.net/sites/2013/79/779/Investor CDP 2013/Shared Documents/Attachments/Investor-8.7b-C3- RelevantStatement/Assurance Statement.pdf

8.8

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

No

Further Information

Emissions of HCFCs and CFCs were included as they have a significant Global Warming Potential.

Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

9.1

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

Yes

9.1a

Please complete the table below

Country/Region	Scope 1 metric tonnes CO2e
Argentina	111000
Australia	87000
Brazil	36000
Ghana	72000
Guinea	177000
Mali	212000
Namibia	42000
South Africa	96000
Tanzania	254000
United States of America	157000

9.2

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

By business division
By facility
By GHG type

9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
Americas Region	305000
Australia Region	87000
Continental Africa Region	758000
South Africa Region	96000

9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Vaal River	49000	-26.967366	26.771278
West Wits	47000	-26.338961	27.495003
Nufcor	0.00	-26.324499	27.717819
Mine Waste Solutions	0.00	-26.96859	26.769562
Obuasi	27000	6.192225	-1.670909
Iduapriem	45000	5.309766	-2.005005
Siguiriri	177000	11.428374	-9.18457
Sadiola	161000	13.890411	-11.703186
Yatela	52000	14.105944	-11.78421
Navachab	42000	-21.983642	15.765638

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Geita	254000	-2.880123	32.186852
Sunrise Dam	87000	-29.075375	122.415161
Cripple Creek & Victor	157000	38.710379	-105.140061
AGA Mineração	25000	-19.987304	-43.84635
Serra Grande	12000	-14.55833	-49.972000
Cerro Vanguardia	111000	-49.30621	-67.729168

9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	1189000
HFCs	53000
Other: CFC (R11)	3500

Further Information

The value reported for metric tonnes of CO2 in question 9.2c (being the same as the reported CO2-e figure) includes CO2-e emissions from CH4 and NO2. Although methane and nitrogen oxide emissions are not significant quantities for AngloGold Ashanti, composite factors which include CO2-e contributions from CO2, N2O and CH4 are used to calculate overall CO2-e per fuel type used.

Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

10.1

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

Yes

10.1a

Please complete the table below

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 (MWh)
Brazil	7000	370644	330550
Ghana	219000	500337	285192
Namibia	1000	51233	25000
South Africa	3039000	3098123	2940548
United States of America	78000	101875	0

10.2

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

By business division

By facility

10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)
Americas Region	84000
Continental Africa Region	220000
South Africa Region	3039000

10.2b

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

Facility	Scope 2 emissions (metric tonnes CO2e)
Vaal River operations	1554000
West Wits operations	1485000
Iduapriem Gold Mine	49000
Obuasi Gold Mine	170000
Navachab Gold Mine	1000
AGA Mineracao	4000
Mineracao Serra Grande	3000
Cripple Creek & Victor operations	78000

Page: 11. Energy

11.1

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

More than 20% but less than or equal to 25%

11.2

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	4485071
Electricity	4745174
Heat	0.00
Steam	0.00
Cooling	0.00

11.3

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

Fuels	MWh
Aviation gasoline	364
Brown coal	75619
Diesel/Gas oil	3698336
Liquefied petroleum gas (LPG)	6275
Motor gasoline	12183
Natural gas	359268
Waste oils	864
Distillate fuel oil No 6	332162

11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
Supplier specific, not backed by instruments	3552978	Hydropower sources utilised
Grid connected low carbon electricity generation owned by company, no instruments created	28312	gravity fed turbine hydropower generation

Page: 12. Emissions Performance

12.1

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

Increased

12.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	9.5	Decrease	As a consequence of emissions reduction activities, including energy efficiency programs (cd response to Q3), overall emissions are at least 9.5% lower than they would have been without these interventions
Divestment	0		
Acquisitions	1.3	Increase	AGA assumed full ownership of Serra Grande mine in Brazil from July 2012 (previously owned 50%) - this did not impact reported emissions as AGA reports on a 100% owned/managed basis and AGA has managed Serra Grande AGA also purchased Mine Waste Solutions in South Africa from August 2012, which did make a difference to reported emissions
Mergers	0		
Change in output	9.5	Increase	While output dropped because of reducing yield, emissions continued to increase with worsening mine conditions
Change in methodology	4.0	Increase	Sunrise Dam changed from open cut to underground operations with resultant increasing emissions
Change in boundary	0		
Change in physical operating conditions	20.0	Increase	As mines mature, mine conditions worsen, the geology is more complex and more energy is consumed travelling further and deeper
Unidentified			
Other			

12.2

Please describe your gross 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
0.000692	metric tonnes CO2e	unit total revenue	7.4	Increase	Revenue decreased as a result of decreased production impacted by reducing yield and strike action in the South African mines. Emissions increased by 9.5% as a result of worsening mine conditions over time and

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
					increasingly complex geology.

12.3

Please describe your gross 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
69.7	metric tonnes CO2e	FTE employee	4.3	Decrease	FTE employees increased by 7.5% with new projects under development in DRC (Congo), Australia (Tropicana) and Colombia, while emissions increased by 3% as a result of worsening mine conditions over time and increasingly complex geology

12.4

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
1.11	metric tonnes CO2e	ounce of gold	13.6	Increase	Production reduced as a consequence of worsening yield from the gold ore and protracted strike action at our South African operations, emissions increased by 3% as a result of worsening mine conditions over time and increasingly complex geology
0.055	metric tonnes CO2e	tonne of ore processed	8.2	Decrease	With worsening mine conditions and increasingly complex geology, tonnes of ore processed increased 12%, while overall emissions increased only 3%

Page: 13. Emissions Trading

13.1

Do you participate in any emissions trading schemes?

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

13.2

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

No

Page: 14. Scope 3 Emissions

14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Not evaluated				
Capital goods	Not evaluated				
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, calculated	10300	These activities comprised motorcycle, petrol and diesel van, heavy goods diesel vehicle and air freight deliveries. A detailed external assessment was carried out in 2009 of 2008 deliveries across the company. Because the emissions (7.0 kt CO2e) were small relative to the company's GHG footprint, these emissions were deemed to be immaterial and subsequent assessments have not been made. The current number was calculated by taking the 2008 figure and increasing it by 10% per year. As the company has grown since 2008 this rate of	0.2%	Immaterial

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Upstream transportation and distribution	Not relevant, explanation provided		increase in deliveries is likely.		These emissions have been included in the section: Fuel-and-energy-related activities (not included in Scope 1 or 2).
Waste generated in operations	Not relevant, calculated	14700	A detailed external assessment was carried out in 2009 of 2008 waste generated across the company. Because the emissions (10.1 kt CO2e) were small relative to the company's GHG footprint, these emissions were deemed to be immaterial and subsequent assessments have not been made. The current number was calculated by taking the 2008 figure and increasing it by 10% per year. As the company has grown since 2008 this rate of increase in waste generated is likely.	0.3%	
Business travel	Not relevant, calculated	9300	Business travel calculations comprised flights and hotel stays. A detailed external assessment was carried out in 2009 of 2008 business travel across the company. Data on flights and hotel stays was collected from the company's travel agents and analysed to calculate the emissions. Because the emissions (5.6 kt CO2e) were small relative to the company's GHG footprint, these emissions were deemed to be immaterial and subsequent assessments have not been made. The current number was calculated by taking the 2008 figure and increasing it by 10% per year. As the company has grown since 2008 this rate of increase in business travel is likely.	0.2%	
Employee commuting	Not evaluated				
Upstream leased assets	Not evaluated				
Investments	Not evaluated				
Downstream transportation and distribution	Not evaluated				
Processing of sold products	Not evaluated				
Use of sold	Not evaluated				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
products					
End of life treatment of sold products	Not evaluated				
Downstream leased assets	Not evaluated				
Franchises	Not relevant, explanation provided				The company does not have any franchises.
Other (upstream)	Not evaluated				
Other (downstream)	Not evaluated				

14.2

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

No third party verification or assurance

14.3

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

Yes

14.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
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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)	Change in physical operating conditions	0.2	Increase	As indicated above we have estimated a 10% increase per annum.
Waste generated in operations	Change in physical operating conditions	0.3	Increase	As indicated above we have estimated a 10% increase per annum.
Business travel	Change in physical operating conditions	0.2	Increase	As indicated above we have estimated a 10% increase per annum.

14.4

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 customers

14.4a

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

Two of our suppliers have submitted CDP Supply Chain requests and we are fulfilling these.

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Andrew Parsons, Vice President Sustainability: Environment

CDP 2013 Investor CDP 2013 Information Request