



ANGLOGOLD ASHANTI

CDP Submission **2010**



## 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 4.6 million ounces of gold in 2009 - an estimated 6% 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 (36%) and surface operations (4%) in South Africa. Contributions from other countries were Ghana (12%), Australia (9%), Brazil (9%), Mali (8%), Guinea (7%), Tanzania (6%), USA (5%), Argentina (4%) and Namibia (1%).

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), as well as Euronext Paris (VA) and Euronext Brussels (ANG).

## 0.2

**Reporting Year**

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

**Enter Periods that will be disclosed**

Thu 01 Jan 2009 - Thu 31 Dec 2009

## 0.3

Are you participating in the Walmart Sustainability Assessment?

No

## 0.5

**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

1.1

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

Board committee or other executive body

1.1a

**Please specify who is responsible.**

Committee appointed by the Board

1.2

**What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?**

A Board Committee on Safety, Health and Sustainable Development has oversight of environmental policy and strategy, including climate change. The Board Audit and Corporate Governance Committee oversees risk control and disclosure. The Executive Vice President Business Sustainability, along with the CEO and other members of the leadership team have played 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.

1.4

**Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?**

No

2.1

**Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.**

In 2009 the company made considerable progress on its approach to risk management through the implementation and rollout of a company-wide risk management system. This system is a tool for ongoing management of the company's risks and performance including sustainability risks. It highlights the level of risk exposure, control measures and mitigation strategies for each risk. The company's risk management system's focus is to ensure that the requirements of the King Code of Governance for South Africa 2009 (King III) and the US Sarbanes-Oxley Act are met.

The system is populated with information based on past risk performance and reporting as well as an ongoing programme of workshops conducted at operational, divisional and regional level. The risk information in the system is reviewed at least quarterly by discipline managers and by the executive committee and the board twice annually. The risk management team operates under the oversight of the Audit and Corporate Governance Committee and the board, and is backed by a group risk management policy statement and associated management standard. In February 2010, the board approved the formation of the Risk and Information Integrity Committee which will oversee this area of the company's work.

Early in 2009 the AngloGold Ashanti board decided to adopt a more systematic approach to risk management at a group level, moving the discipline from an approach centred on compliance to one focused on supporting business strategy.

All eight key components of the 'Enterprise Risk Management – Integrated Framework' issued by the Committee of Sponsoring Organisations of the Treadway Commission (COSO) have been incorporated into the group's process to comply with Sarbanes-Oxley Act section 404 dealing with the group's internal control system.

Full reviews of the risk control and disclosure processes are undertaken regularly.

## Page: Regulatory Risks

### 3.1

**Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?**

Yes

### 3.2B

**What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?**

AngloGold Ashanti operates mines in ten countries and has advanced exploration in a further two countries. Of these, only one (Australia) is an Annex I signatory to the Kyoto Protocol. South Africa introduced a carbon tax on electricity generated from fossil fuels during 2009 and consideration is being given to expanding it - see below for more on this. There is not currently climate change-related legislation in any other of the countries in which the company operates, but carbon taxes and/or cap-and-trade regimes are being considered in Australia, Brazil and the USA. The timing of these initiatives changes rapidly - Australia appeared to be close to promulgating legislation but recently pulled back, while the US process seemed delayed but has recently advanced. In Brazil, despite no formal regulation on GHG emissions, there is an initiative from the State Environmental Agencies requiring companies to develop their emission budget. This initiative will be part of a strategy for future requirements for environmental licensing renewal. Regulatory pressure is escalating in Brazil to reduce GHG emissions with signature of a law in December 2009 which has minimal immediate impact on AngloGold Ashanti.

The South African carbon tax is 2c/kWh of electricity generated from fossil fuels (more than 90% of grid supply), or R20/ton of CO<sub>2</sub>e. South Africa has started a policy process to further develop a carbon tax and/or emissions trading. A Green Paper is expected in mid-2010 and a White Paper in early 2011 from the national Department of Environmental Affairs (DEA) as part of its climate change response process. The Minister of Finance has stated his preference for a carbon tax and is expected to publish policy papers on financial mechanisms during 2010. The Long-Term Mitigation Scenario (LTMS) exercise conducted by the DEA in the mid-late 2000s postulated a carbon tax of R100/ton, rising to R750/ton by 2050. The President made conditional emissions reduction commitments in Copenhagen in 2009 based on the LTMS and these were repeated in a DEA discussion paper for its climate change response process. Thus there is potential for these taxes to be incorporated into law. There are many uncertainties: the nature of a carbon tax, its timing, the extent to which it would be passed on to consumers, whether the proceeds would be ringfenced, whether they would offset other tax payments, and whether recently approved electricity tariff hikes that would double the electricity price over 3 years will be seen as part of the carbon tax or not.

In an internal white paper and in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>) the following risks were identified: • Increased expectations from host governments for corporate involvement in managing the challenges of adaptation to climate change. • Higher energy costs resulting from carbon taxes imposed by local, state/ provincial or national agencies, as well as increasing fossil fuel and grid electricity costs. • Reduced production due to imposed emission caps.

A major project was carried out during 2008/9 to identify and, where possible, quantify, all of the company's climate change-related risks, including regulatory risks. It identified the following additional risks: - Increased management effort to achieve compliance or to reduce compliance risks. - Reduced international competitiveness.

### 3.3

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**

Of the countries mentioned above, the company uses grid electricity in Brazil, Ghana, Namibia, South Africa and the USA. This is primarily fossil-fuel based in South Africa and the USA. Thus, any regulatory responses in these countries that raise electricity prices, which are very likely, will raise the company's electricity bills. As many, if not all, of the goods and services which the company procures use electricity, these costs will also rise. Taxes on fossil fuels, the other main source of energy used by the company, are also likely and will further raise the cost of production as well as any goods and services that are transported to the company.

The company produces gold bullion and small amounts of uranium and silver and other metals. The prices for these are set on international metals exchanges and the company has no control on them. Thus any increased input costs cannot be passed on and will entail lower profits.

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3.4

**Are there financial implications associated with the identified risks?**

Yes

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3.5

**Please describe them.**

See 3.3. The potential implications are lower profits should increased input costs not be matched by higher gold prices. As the price of gold is more a function of international perceptions of financial risk than of consumer demand, there is little linkage between costs and prices. The company is unable to influence the gold price in any way as we constitute approximately 6% of global production. Gold is produced by many companies operating in many different countries around the world.

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3.6

**Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

The company engages with government authorities at the relevant levels, both directly, and through industry associations, to understand government policies as they develop, and to communicate to regulators the company's views on climate change policy. The company works through peak industry associations at the international and national levels to advance a proactive industry approach.

The company has focused attention on energy use efficiency, described elsewhere in this response, in order to save electricity and fuel costs, reducing direct and indirect carbon emissions and reduce exposure to electricity prices. Various CDM projects are being investigated as part of this approach. The costs of these efforts are given in the relevant section of this response.

Switching to alternative fuel sources is pursued where feasible. It is usually only possible when plant is installed or replaced owing to the costs involved. Fuel switching has been considered and applied to an extent in Australia but is not an option in South Africa as the opportunities are very limited and AngloGold Ashanti's operations are major electricity consumers. Options are currently being investigated in Tanzania and the DRC.

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**Page: Physical Risks**

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4.1

**Do current and/or anticipated physical impacts of climate change present significant risks to your company?**

Yes

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4.2B

**What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?**

Mine infrastructure, employees and surrounding communities could all be impacted by changing climatic conditions and extreme weather events. Different parts of the world will also be affected to varying degrees, leaving certain operations more exposed than others.

A major project was carried out during 2008/9 to identify and, where possible, quantify, all of the company's climate change-related risks, including physical risks. The following physical risks were considered for each operation: sea level rise, temperature change, precipitation change, water availability, land degradation, flooding and landslides, wild fires, other extreme weather events, impacts on health and disease. Although all operations have some degree of physical risks, those in Africa, Australia and Latin America were identified as being most at risk. The most significant risks are those related to increased rainfall, reduced water availability, higher temperatures and extreme weather events.

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### 4.3

#### **Describe the ways in which the identified risks affect or could affect your business and your value chain.**

Increased rainfall can lead to flooding and disruption of mining and transport operations, amongst other consequences. Sufficient water is vital for mineral processing, thus reduced rainfall would disrupt operations in dry regions. Rainfall is also important to electricity supply from hydropower in Brazil and Ghana, so changed rainfall patterns can affect electricity supply in those countries - problems have previously been experienced in Ghana. Altered rainfall patterns would potentially affect the company's operations as water containment measures have generally been built in line with historic climatic patterns.

Increased temperatures can cause adverse operating impacts on major plant and equipment. Higher temperatures can also hinder rehabilitation efforts and result in a number of health and safety risks (such as increased underground temperatures requiring additional cooling), whilst extreme weather events, and related events such as wild fires, have the potential to cause significant damage to livelihoods and property.

Many of AngloGold Ashanti's existing operations are located in harsh environments characterised by existing water stress, high temperatures and flood and landslide risk, with these conditions set to be exacerbated in a warming world.

The impact of climate change on communities in close proximity to AngloGold Ashanti's operations constitutes not only human distress affecting these populations, but can have an important bearing on the company, especially in developing countries and particularly the poorest countries in which AngloGold Ashanti operates. In particular, competition for scarce water resources could place pressure on the to provide water to communities and even on the company's ability to access sufficient water.

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.

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### 4.4

#### **Are there financial implications associated with the identified risks?**

Yes

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### 4.5

#### **Please describe them.**

In many cases, breakthrough technologies to reduce the company's emissions significantly do not currently exist. Thus all that is possible is the ability to make incremental changes, which are often absorbed by increased energy requirements owing to mines getting deeper. Significant energy efficiency investments are including in current operating plans - details are given in question 9.7.

Adapting to the risks described will result in increased costs. Additional or expanded water containment and storage facilities will be necessary in areas where rainfall will increase or rainfall events are heavier and potentially where rainfall patterns move. In several jurisdictions, our operations are not permitted to discharge water to the environment, so all rain that falls on industrial infrastructure must be contained. Where rainfall reduces it may be necessary to purchase additional water to meet requirements.

Increased temperatures are likely to lead to higher cooling and refrigeration costs and potentially increased refrigeration capacity. The company already operates 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 them could be significant.

As explained previously, the company has no control or influence over the price of its product, gold. Thus any increase in costs will result in reduced profitability.

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### 4.6

#### **Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

Mines are long-term investments, with the result that mine planning, operation, and closure already by necessity incorporate management of extreme climate events. However our mine planning parameters need to be reviewed to take account of new climate change information.

Impacts on marine and port infrastructure could affect the availability or cost of major capital equipment, especially in countries which do not adequately maintain their infrastructure. Except for Argentina, all of the company's gold is exported by air, so sea level rise will not affect this aspect of the company's operations.

The project report referred to earlier has been distributed to all operations to explain the physical risks they face and to equip them to adapt to the likely changes.

Life-of-mine climate change risks will be specified in more practical detail for each operation during 2010 and 2011, starting with those at greatest risk, and planning commenced for addressing these risks.

See

<http://www.anglogoldashanti.co.za/subwebs/informationforinvestors/reports09/SustainabilityReview09/operate.htm> for confirmation of our commitment.

## Page: Other risks

### 5.1

#### **Does climate change present other significant risks - current and/or anticipated - for your company?**

Yes

### 5.2B

#### **What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?**

A major project was carried out during 2008/9 to identify and, where possible, quantify, all of the company's climate change-related risks, including financial and investment risks. Three key categories were assessed: markets, banks and insurers. The anticipated risks include 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. A further risk is increased insurance premiums as a result of increased exposure to climate change-related risks.

### 5.3

#### **Describe the ways in which the identified risks affect or could affect your business and your value chain.**

Although lenders, banks and insurers have not yet claimed to have changed their views on the company owing to climate change, each of these sectors is changing its approach, and individual companies within each are certainly changing. The project referred to earlier has helped the company to understand the risks it faces, as well as the opportunities it has, and these are now being communicated to investors 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.

Although it is unlikely that it will affect the availability of finance, there are clear indications that investors, lenders, banks and insurance companies will place increasing pressure on companies, such as AngloGold Ashanti, to ensure that they minimise their carbon liabilities and develop plans to adapt to the diverse effects of climate change. This pressure will be exerted within the global context of a world that shows many signs of increasingly raising the standards of performance expected by companies in the climate change arena. These risks have however not yet been experienced by the company.

The link between company valuations and those aspects of climate change that can affect these valuations lies in a number of factors. In the short term these are not controllable by individual organisations, however there are strong indications that positive impacts can be created in the medium to long term. 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 for regulations.

### 5.4

#### **Are there financial implications associated with the identified risks?**

Yes

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5.5

**Please describe them.**

The potential financial implications are: increased insurance premiums, changed financial valuation (up or down) as a result of the market's perception of the company's exposure to climate change risks and its ability to manage this exposure, and changed lending rates, again resulting from lenders' perceptions of the company's understanding of its risks and ability to withstand these. These implications have not yet been experienced, though the company appears to have a relatively good reputation in regard to climate change, and it is not yet possible to quantify the extent of the financial implications. In any event, the market's valuation of a company and a lender's perception of a company's risk management are complex and take a great many factors into account, of which climate change is one.

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5.6

**Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.**

The project mentioned above has raised awareness across all disciplines, including financial executives, of the need to be aware of climate risks and to communicate to investors, lenders and insurers regarding the company's activities in regard to climate change.

All the activities described in this submission to reduce the company's exposure to climate change by, for example through developing an understanding of the risks and opportunities, followed by mitigating the risks and pursuing the opportunities presented by climate change help to reassure investors that the company understands actively and appropriately managing climate change issues. This includes not acting too early, as well as not delaying action. Publicly disseminating information on what the company is doing is the primary action being undertaken to address the other risks. This is done through our sustainability and stock exchange listing reporting requirements, CDP disclosure as well as ad hoc questionnaires from investors.

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**Page: Regulatory Opportunities**

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6.1

**Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?**

Yes

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6.2B

**What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?**

Carbon trading presents a limited opportunity to the company. In the study referred to earlier, carbon trading opportunities were assessed on seven parameters:

1. Availability of information opportunity information;
2. Capital cost required for the implementation of the project;
3. Return on investment;
4. Payback periods;
5. Energy consumption reductions;
6. GHG emission reductions; and
7. Ease of implementation.

Projects were also assessed for their potential to obtain carbon finance and eligibility for carbon credits trading. Based on this assessment, some opportunities were identified - see question 6.5 for more information.

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6.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

Eighty-six percent of the company's gold production comes from developing countries. Pending regulatory requirements for carbon trading in Australia and existing requirements in Europe present opportunities for carbon trading both internally and externally. 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.

6.4

**Are there financial implications associated with the identified opportunities?**

Yes

6.5

**Please describe them.**

A CDM project with an NPV of R22m is currently being developed. Another 2 projects with combined NPV of R68m are eligible for CDM and are under consideration internally. A further 2 projects are being investigated in greater detail, while several other projects have been identified and will be evaluated as appropriate. Most of the projects are electricity efficiency projects in South Africa and would be eligible for Eskom DSM financing.

6.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

The South African operations present the most promising opportunities because they are major electricity consumers and because the electricity supplier (Eskom) has a high emissions factor. These opportunities are currently being assessed in greater detail in order to prioritise them and develop the most promising ones - see question 6.5. A specialist consultancy was retained during 2009/10 to assist the company in this regard.

The CDM project mentioned in 6.5 will cost R7m, including DSM income but excluding CDM validation and registration fees, to implement. The other 2 projects are projected to cost of the order of R65m to implement.

There are also opportunities to exploit research and development tax rebates where they exist, eg in South Africa, by undertaking or supporting renewable energy and energy efficiency projects, but these have yet to be explored.

## Page: Physical Opportunities

7.1

**Do current and/or anticipated physical impacts of climate change present significant opportunities for your company?**

Yes

7.2A

**What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment
Other: Increased temperatures	Argentina	11 -- 20	The average annual temperature at the operation is below 10 C, thus the predicted increase in temperature will reduce heating costs.

7.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

The average annual temperature at the operation is below 10 C, thus the predicted increase in temperature will reduce heating costs.

The physical impacts of climate change are not currently understood at our operations with enough specificity in order to be able to identify further opportunities.

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7.4

**Are there financial implications associated with the identified opportunities?**

Yes

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7.5

**Please describe them.**

Heating costs will be reduced but they have not yet been quantified.

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7.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

No actions have yet been taken. No investment will be required.

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**Page: Other Opportunities**

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8.1

**Does climate change present other significant opportunities - current and/or anticipated - for your company?**

Yes

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8.2B

**What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

Many countries are installing new nuclear electricity generation capacity or replacing old capacity, when in the past they would likely have turned to coal. The company produces uranium as a byproduct of gold mining in South Africa. Other potential opportunities include enhanced relationships with key stakeholders as grass-roots adaptation projects are developed, and working with host governments and industry to develop wide-ranging adaptive capacities and technology changes.

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8.3

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

Increased revenue from uranium sales. Better relationships with stakeholders and governments would enhance the company's social licence to operate and the options open to the company in terms of adapting to climate change.

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8.4

**Are there financial implications associated with the identified opportunities?**

Yes

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8.5

**Please describe them.**

It is not possible to predict the future uranium price, nor to know what it might have been without climate change being a factor in governments' decisions. However the uranium price has improved significantly since concerns over climate change became marked.

It is not yet possible to quantify the other opportunities in financial terms.

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8.6

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

The company's uranium production has increased in response to the higher price.

**Module: Strategy**

**Page: Strategy**

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9.1

**Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or achievements, public policy engagement and external communications.**

In 2008 the company committed to a 30% reduction per ounce of gold produced in GHG emissions in the medium to long term and a 15% reduction per ounce of gold produced in energy consumption in the short to medium-term. A preliminary climate change strategy was approved by the board during 2009 and this is being developed further as our understanding improves of the impacts and opportunities related to climate change. The company subscribes to the International Council on Mining and Metals (ICMM, the international association for our industry) position statements on climate change and has signed the Copenhagen Communiqué on Climate Change.

The following activities are being undertaken to meet these commitments and to address climate change and energy risks:

- Improve energy efficiency globally and, in particular, in South Africa, where electricity prices will increase sharply over the next few years.
- Assess life-of-mine climate change risk on a site-by-site basis. Further practical work will be undertaken in 2010 and 2011, with operations then taking responsibility for implementing appropriate adaptation measures.
- Develop carbon credits where feasible. Construction of a pilot CDM project in South Africa is to be completed in 2010.
- Assess our global exposure to energy and water security challenges. A high level audit is to be completed in 2010, along with a review of expected cost implications.
- Participate in the Energy Efficiency Opportunities programme in Australia and Energy Efficiency Accord in South Africa, which include identifying energy opportunities, implementing improvement initiatives and publicly reporting energy performance.
- Interact directly and via industry associations with relevant governments on wider climate change-related issues.

The climate change strategy was developed from a business case based on the following issues:

- Reduce GHG emissions by reducing energy consumption
- Reduce exposure to carbon tax and potential emissions trading schemes
- Carbon trading
- Operational resilience
- Reputational benefits

**Page: Strategy - Targets**

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9.2

**Do you have a current emissions reduction target?**

Yes

## 9.6

Please complete the table. (If you have a current emissions reduction target or have a recently completed target)

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment
Intensity target	30	Other: % reduction of CO2e per ounce of gold produced	2007	4510756	Other: Medium to long-term	Scope 1 + 2	Target ongoing	

Page: Strategy - Emission Reduction Activities

## 9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
Five different energy efficiency projects being carried out in South Africa over 2009/10 and coming on line in 2010 - aggregated figures are presented here.	Anticipated	157	Other: GWh	160000	Anticipated	112000000	ZAR (R)	55000000	ZAR (R)	Anticipated	The savings in column 9 are per annum.
A variety of energy efficiency projects that are planned to be implemented in South Africa in 2011 and beyond.	Anticipated	70	Other: GWh	70000	Anticipated	41000000	USD(\$)	24500000	ZAR (R)	Anticipated	15 years. The amount in column 7 is the total budget in 2010 dollars. The savings in column 9 are per annum at the current electricity price.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
<p>Two load shifting projects are being carried out in South Africa in 2009/10 and coming on line in 2010 - aggregated figures are presented here. These projects do not reduce the company's Scope 2 emissions, but they enable the electricity utility (Eskom) to reduce its emissions, which eventually impact AngloGold Ashanti's Scope 2 emissions indirectly.</p>	Anticipated	0	kWh (kilowatt-hour)			13000000	ZAR (R)			Not quantified	

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## 9.9

### **Please provide any other information you consider necessary to describe your emission reduction activities.**

A list of potential energy efficiency projects is updated annually at the corporate office. Projects are rated according to the company's financial criteria for projects and those that offer the best returns are implemented, subject to the availability of project financing. 95% of the company's CO<sub>2</sub>e emissions result from energy consumption, so that is why this area receives the most attention.

A particular challenge that the mining industry faces in achieving emissions reductions is that, as mining proceeds at a site, the ore body becomes less accessible. Thus, longer haul roads, increased lifting distances, higher rock temperatures and more distant stopes are unavoidable. Each of these results in greater consumption of electricity and fuels and thus emissions. In addition, ore bodies differ significantly from site to site, in terms of their configuration, geochemical nature, depth, etc. Though some generic approaches can be followed, emissions must be reduced on a site by site basis.

AngloGold Ashanti participated actively in 2008 in a project of the International Council on Mining and Metals to develop methods for the mining and metals sector to report the carbon intensity of their operations, taking into account the challenges described in the previous paragraph. An approach to doing so was outlined, but it was not possible to develop a generic approach for the industry, such is the nature of the challenge.

Since 1 July 2008, the company has publicly reported its annual energy production and consumption and greenhouse gas emissions in Australia under the provisions of the National Greenhouse and Energy Reporting Act. Our Australian operations also participate voluntarily in the Energy Efficiency Opportunities Program, which requires companies to report publicly on the results of regular energy efficiency assessments and progress towards implementing viable energy efficiency initiatives.

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## 9.10

### **Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?**

Yes

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## 9.11

### **Please describe.**

The company engages on climate change policy at public forums throughout its operations. It engages with government agencies directly and through industry associations (e.g. Minerals Council of Australia, Western Australia Chamber of Minerals and Energy, Instituto Brasileiro de Mineração, National Business Initiative (South Africa), Chamber of Mines of South Africa, Business Unity South Africa, National Mining Association (USA)) 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.

The company is actively involved in the climate change discussions and activities at the International Council on Mining and Metals (ICMM), the leading international mining industry association. ICMM published a new climate change position statement during 2009, to which AngloGold Ashanti subscribes.

Engagement in South Africa is led by the CEO and facilitated through business associations and the national government Department of Environmental Affairs. The Department is currently developing a Green Paper on climate change and the company has been actively involved in the policy process to develop it.

Through national and state peak industry associations, the Australia region has engaged in government influencing activities on the Government's proposed Carbon Pollution Reduction Scheme and national renewable energy targets. In addition, Australian gold mining companies are working actively to address climate challenges specific to the gold mining sector. The company voluntarily participates in the Australian government's energy Efficiency Opportunities Program and annually reports its greenhouse gas emissions profile publicly as required by the National Greenhouse and Energy Reporting Act. The company actively engages with relevant state authorities on water and environmental management issues.

The North American sub-region is a member of several organizations at the local, state, and national level that directly engage with the governmental and nongovernmental policy makers on climate change issues. These organizations include: the National Mining Association; the Colorado Mining Association; the Nevada Mining Association; Alaska Miners Association; the Northwest Mining Association; the Colorado Association of Commerce and Industry; the Rocky Mountain Mineral Law Foundation, and several organizations at the county level. Climate change issues are tracked through receipt of newsletters from industry groups such as the Western Business

Roundtable. Participation in these organizations is managed at the regional and site level and involves attending meetings and presentations and providing input to the organization's interactions and communications with policymakers.

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

Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)

10.1

Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which operational control is exercised

10.2

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

Yes

10.3

Please complete the following table.

Source	Scope	Explain why the source is excluded
Administration Offices and Exploration	Scope 1 and 2	AGA commissioned a detailed carbon footprint over the 2007 and 2008 period. The outcome showed that emissions for administration offices and exploration activities were insignificant. When combined, these totalled a mere 0.35 percent of annual emissions in both years. Not being significant contributors to the overall company footprint and therefore not providing material opportunity for reductions, it was decided for the interim to not continue with the collection of this information. Additionally, the effort required to collect this information annually is not justified at this time.

Page: Methodology - (1 Jan 2009 - 31 Dec 2009)

11.1a

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 and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.

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

11.1b

Please describe the procedure that you use.

The 2009 GHG assessment includes direct CO<sub>2</sub>-e emissions arising from direct fuel combustion in the form of gas, solid (coal) and liquid fuels and indirect emissions arising from purchased electricity. Direct emissions arising from Kyoto and non-Kyoto refrigerant gas losses have also been included in the assessment. Emission factors for fuel combustion presented in 11.4 below already include the associated methane and nitrous oxide emissions in addition to CO<sub>2</sub> emissions.

The GHG emissions assessment was based on direct measurement of emissions in the case of refrigerant gas losses and for direct fuel use on the actual material consumption data, principally weight or volume of fuel and finally for indirect energy on the kilowatt hours of electricity purchased.

The methodology used followed the principles and guidelines provided by the Greenhouse Gas Protocol published by the World Business Council for Sustainable Development and the World Resources Institute (WBCSD/WRI Protocol).

The following general procedure was used to calculate the 2009 GHG emissions assessment: 1. Definition and confirmation of the 2009 assessment boundaries, reporting sites and GHG data sources. 2. Collection and collation of signed-off primary energy consumption and refrigerant data from sites via a in-house data warehousing tool; 3. Automated calculation of emissions using appropriate fuel and gas conversion factors in the in-house datawarehouse tool; 4. Review of results and where necessary revision of input data at source.

5. Re-calculation and finalisation of AngloGold Ashanti group-wide 2009 GHG emissions.

## 11.2

**Please also provide the names of and links to any calculation tools used.**

**Please select the calculation tools used.**

Other: In house datawarehouse and reporting tool.

## 11.3

**Please give the global warming potentials you have applied and their origin.**

Gas	Reference	GWP
HFC-134a	IPCC Fourth Assessment Report (AR4 - 100 year)	1430
CFC-11	IPCC Third Assessment Report (TAR - 100 year)	4600
Carbon dioxide	IPCC Fourth Assessment Report (AR4 - 100 year)	1

## 11.4

**Please give the emission factors you have applied and their origin.**

Fuel/Material	Emission Factor	Unit	Reference
Aviation gasoline	2.54	metric tonnes CO2-e per m3	NGA Factors 2008
Bituminous coal	2.47	metric tonnes CO2-e per metric tonne	IPCC 2006
Distillate fuel oil No 6	3.35	metric tonnes CO2-e per m3	IPCC 2006
Gas/Diesel oil	2.93	metric tonnes CO2-e per m3	IPCC 2006
Liquefied petroleum gas (LPG)	0.31	metric tonnes CO2-e per metric tonne	NGA Factors 2008
Natural gas	2.56	metric tonnes CO2-e per litre	IPCC 2006
Lubricants	2.81	metric tonnes CO2-e per m3	IPCC 2006
Motor gasoline	2.50	metric tonnes CO2-e per m3	IPCC 2006

## Further Information

The majority of the emission factors used to establish the tonnes of CO2 equivalent emitted from the energy & fuel consumption were provided by the IPCC. These were taken from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and other IPCC documents.

Emission factors for purchased electricity were drawn from a number of sources. The majority of these were from the International Energy Agency (IEA). Where available, emission factors were obtained directly from published documents of the energy provider or national government.

Additional emission factors were obtained from US Department of Energy (Energy Information Agency) and the National Greenhouse Gas Accounts Factors (Australia).



12.1

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.

1183000

12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.

Country	Scope 1 Metric tonnes CO2-e
Argentina	99000
Australia	143000
Brazil	24000
Ghana	66000
Guinea	156000
Mali	174000
Namibia	23000
South Africa	115000
Tanzania	271000
United States of America	110000

12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2	1174000.00	1174000
HFCs	32.90	47000

12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

4239000

12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Aviation gasoline	800.00
Lignite	121000.00
Gas/Diesel oil	2807000.00
Distillate fuel oil No 6	746000.00
Liquefied petroleum gas (LPG)	1000.00
Natural gas	550000.00
Motor gasoline	11000.00

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Data Gaps Published Emissions Factors Data Management	There is some uncertainty as to whether the emissions factors used for fuels in the different countries of operation are the most current.  To a lesser extent there is some uncertainty about the accuracy and completeness of the data collation processes. The quantification of direct emissions from land clearance activities is under review has been excluded from the 2009 data, constituting a data gap.  Verifying and where necessary addressing these contributing factors of uncertainty are the focus of planned work for 2010.

Further Information

The reported gross GHG equivalent emissions for the company also include emissions resulting from the accidental release of refrigerant plant gasses, including CFCs (R 11) and HFCs (R134a).

Regarding the value reported for metric tonnes of CO2 in question 12.6 (being the same as the reported CO2-e figure): Although methane and nitrogen oxide emissions are not significant quantities for AngloGold Ashanti, composite factors which include CO2-e contributions from these gases, are used in the calculation of the overall CO2-e per fuel type used (as explained in 11.1b). Information on absolute CO2, CH4 and NO2 emissions is therefore not available. In question 12.6, there is no space provided to report similarly on CFC gas emissions.

Page: Emissions Scope 2 - (1 Jan 2009 - 31 Dec 2009)

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.

14237000

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.

Country	Metric tonnes CO2-e
Brazil	447000
Ghana	1782000
Namibia	153000
South Africa	11604000
United States of America	250000

13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	3955000

13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
Less than or equal to 2%	Published Emissions Factors	Emissions factors used for Ghana, Namibia, USA and Brazil may be outdated.

**Page: Emissions Scope 2 Contractual**

14.1

Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?

Yes

14.4

Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

No

**Further Information**

AngloGold Ashanti does not operate in any countries that have obligatory emissions reductions.

**Page: Emissions Scope 3**

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization.

15.2

Please explain why not.

During 2008 and 2009, AngloGold Ashanti carried out a detailed and independent GHG emissions assessment. The Scope 3 emissions deemed most relevant to the company; Business Travel and Waste Generated in Operations, were included in this assessment and were found to be in the order of 0.4% of the group's total emissions for the periods 2007 and 2008.

Consequently, when compared to Scope 1 emissions, the Scope 3 emissions provide an insignificant opportunity for reducing the company's overall emissions. Being immaterial to the total AGA footprint, they are not reported upon.

**Page: Emissions 7**

16.1

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

No

17.1

Please provide your total carbon dioxide emissions in metric tonnes CO2 from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.

17.2

Please explain why not.

AngloGold Ashanti does not actively engage in processes that combust biologically sequestered carbon on a material scale.

Although biomass products are used in the company, e.g. wood support packs in some underground mines, no biofuels are used for combustion in production processes.

It is estimated that greenhouse gases emissions from the burning of seasonal firebreaks in grassland areas around some of the managed properties for example in South Arica, is immaterial.

Page: Emissions 8

18.1a

Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
				Not Relevant	There is no causal link between GHG emissions and financial results. The energy used in production processes drives the generation of GHG emissions. The level of emissions are in turn dependent on the available energy mix, which is a function of the geographical spread of company operations and most often is outside the control of a the company. On the other hand, financial results are the consequence of a myriad of factors on which the company has little to no influence, including the gold price. Therefore comparing the emissions intensity on a financial basis across gold mining companies or comparing each company year on year, has little value.

18.1b

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
0.94	Metric tonnes CO2-e	Other: per ounce of gold	This metric is not an ideal measure as gold production is not a direct driver of GHG emissions. The drivers of energy consumption and GHG emissions are the depths and distances at which gold is being

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
		produced	mined. These increase as a mine develops while gold grades gradually reduce. This results in more energy being consumed to recover less gold during the life of a mine.

## 19.1

**Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?**

No

## 20.1A

**Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.**

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 20% but less than or equal to 40%	More than 80% but less than or equal to 100%	

## 20.1B

**I have attached an external verification statement that covers the following scopes:**

Scope 1  
Scope 2

## Further Information

Overall, 81 percent of AGA's combined Scope 1 and Scope 2 emissions were subjected to external assurance.

The attached assurance statement must be used in conjunction with the attached environment section of the AGA supplementary report.

A system of icons is used to denote those indicators that were externally assured. See EN16 on document page 38.

## Attachments

2009 SD Report-Env Section.pdf  
AGA\_SR09\_15.pdf

## 21.1

**Do you participate in any emission trading schemes?**

We don't currently, but anticipate participating in emissions trading within the next two years.

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21.3

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

The company is developing a CDM project in South Africa and is considering several others, with the intention of selling the credits into the European market.

The company anticipates participating in the Australian Carbon Pollution Reduction Scheme when it is launched.

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21.4

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

No

## Module: Climate Change Communications

### Page: Communications 1

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22.1

**Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?**

Yes

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22.2

**In your Annual Reports or other mainstream filing? (If so, please attach your latest publication(s).)**

Yes

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22.3

**Through voluntary communications such as CSR reports? (If so, please attach your latest publication(s).)**

Yes

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### Further Information

AFS.pdf is the AngloGold Ashanti 2009 Annual Financial Statements, i.e. Annual Report. 20F.pdf is the AngloGold Ashanti 2009 Form 20F submission to the US Securities and Exchange Commission. SR.pdf is the AngloGold Ashanti 2009 Sustainability Review, i.e. CSR report. SR supplementary.pdf contains supplementary information to the 2009 Sustainability Review. All of these reports, and more, are available on the company website, <http://www.anglogoldashanti.co.za/>.

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### Attachments

AFS.pdf  
20F.pdf  
SR.pdf  
SR Supplementary.pdf