

## Module: Introduction - 2011 CDP Water Disclosure

## Page: Introduction - 2011 CDP Water Disclosure

## 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 4.52 million ounces of gold in 2010 - an estimated of 6.2% 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 the period that will be disclosed.

Fri 01 Jan 2010 - Fri 31 Dec 2010

## 0.3

**Reporting Boundary**

Please indicate the category that describes the company, entities, or group for which you are reporting.

Companies over which operational control is exercised

**0.4****Exclusions**

**Are there any geographies, activities, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?**

Yes

**0.4a****List of Exclusions**

Please describe any exclusion(s) in the following table.

Exclusion	Please explain why the geography, activity, facility or type of water input/output is excluded
Administration offices located in urban centres and exploration activities.	The water consumed at administration offices and during exploration activities is estimated to comprise less than 1% of the company's total water consumption.

**Module: 2011-Water-Management**

**Page: 2011-Water-1-ManagementGovernance**

**1.1**

**Does your company have a water policy, strategy or management plan?**

Yes

**1.1a**

**Please describe your policy, strategy or plan, including the highest level of responsibility for it within your company and its geographical reach**

Geographical reach	Description of policy, strategy or plan	Position of responsible person
Global	<p>The company has an Integrated Environment and Community Policy, which includes commitments to:</p> <ul style="list-style-type: none"> <li>- manage efficiently and safely the resources under our stewardship and respect the values, traditions and cultures of the local and indigenous communities in which we operate;</li> <li>- work to prevent pollution and minimise waste from our activities;</li> <li>- undertake initiatives in partnership with the societies in which we operate with the aim of contributing to a sustainable future for host communities;</li> <li>- ensure financial resources are available to meet our closure obligations;</li> <li>- establish, maintain, continually improve and audit management systems to identify, monitor and</li> <li>- control the environmental and community aspects of our activities.</li> </ul> <p>The company also has a Water Management Standard, which sets specific requirements for all operations in regard to water management.</p>	Board/executive board

1.1b

**Does the policy, strategy or plan specify water reduction, quality or efficiency targets or other water-related goals?**

No

1.2

**What specific actions has your company taken to manage water resources or engage stakeholders in water-related issues?**

Geographical reach	Type of action	Action	Outcomes
Global	Direct operations	Measured withdrawals and/or consumption of water; and measured water discharge volumes and/or quality. These are done at all operations.	Considered water-related issues in siting practices. Reduced absolute withdrawals and/or consumption of water. Reduced pollution of water.
Global	Community engagement	The company engages with local communities on water use and supply at all operations (for operational and community purposes). Access to sanitation for local communities has been provided where appropriate, and subject to consultation with local communities and government. Consideration given to the sensitivity of receiving catchments in siting analysis, design and management of facilities.	Increased access to safe drinking water; Increased access to sanitation.
Global	Supply chain and watershed management	The company engages with local communities on water use, management and supply at all operations. Ensured employees have access to safe drinking water and sanitation.	Increased access to safe drinking water.
Global	Public policy	As water supply is critical to the company's operations, we engage with public policy makers in all the countries in which we operate.	Considered water-related issues in sourcing decisions. Better public policy. Better company understanding of national goals and objectives.
Global	Collective action	Several operations have improved their water use efficiency by increasing reuse of water, thus reducing abstraction of fresh water.	Reduced absolute withdrawals and/or consumption of water. Reduced pollution of water.

**Module: 2011-Water-RisksOps**

**Page: 2011-Water-2-indicators-op**

2.1

**Are you able to identify which of your operations are located in water-stressed regions?**

Yes

2.1a

Please specify the method(s) you use to characterize water-stressed regions

Method used to define water stress Please add any comments here:

Internal company knowledge WBCSD Water Tool	
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2.1b

Please list the water-stressed regions where you have operations and the percentage of your total operations in that area

Country	Region within country	Proportion of operations located in this region (%)	Further comments
South Africa	Free State	11 – 20	
Australia	Western Australia	0 – 10	
Namibia	Erongo	0 – 10	

2.2

Do you use other indicators (besides water stress) to identify operations which are located in regions subject to water-related risk?

No

2.3

Please specify the total percentage of your operations that are located in the regions at risk which you identified in questions 2.1 and/or 2.2

29%

2.4

Please specify the basis you use to calculate the percentages used for questions 2.1 and/or 2.2

Basis used to determine percentage

Please add any comments here

Number of facilities	The operations are one of fourteen AGA gold producing operations globally.
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2.5

Are you able to identify which of your key water-intensive inputs (excluding water) come from regions subject to water-related risk?

No

**2.5b**

**You may explain here why you are not able to identify which of your key water-intensive inputs come from water-stressed regions and whether you have plans to explore this issue in the future**

The bulk of the company's procurement is of reagents, fuels, heavy mobile equipment and spares for this equipment. Availability and cost of these items are largely independent of water supply.

**3.1**

**Is your company exposed to water-related risks (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?**

Yes

**3.1a**

**Please describe the current and/or future risks to your operations, the ways in which these risks affect or could affect your operations and your current or proposed strategies for managing them**

Country or geographical reach	Risk type	Risk description	Timescale (years)	Potential business impact	Risk management strategies
South Africa	02. Physical: Flooding	Current flooding risk owing to the ingress of underground water into mine workings from adjacent higher level mines that cease pumping.	Current	Production could be reduced or even halted temporarily.	AGA's mines are likely to be the deepest and longest operating gold mines in the West Wits and Vaal River regions of South Africa. Our underground workings are at severe risk of flooding as a consequence of the prior closure of neighbouring mines, where the workings are at depths above our operations. While these mines are operational, they continue to pump significant quantities of underground water to the surface. However, once they cease operating, there is a significant risk that this water will permeate underground and interrupt AGA's ongoing operations. Finding a solution to this substantive challenge will require collaboration with neighbouring mines, governments at all levels and other interested parties.
Ghana	17. Other: Inadequate infrastructure (leading to disruption in operations)	Inadequate infrastructure leading to disruption of production	Current	Production could be halted temporarily. Constructing the	Process water treatment plants are being constructed to treat enable better management of excess water at the mine.

Country or geographical reach	Risk type	Risk description	Timescale (years)	Potential business impact	Risk management strategies
		operations in order to prevent the release of non-compliant mine water.		necessary infrastructure requires significant capital.	
South Africa	03. Physical: Increased water stress or scarcity (leading to e.g. disruption to operations, higher commodity/energy prices)	Increased water stress or scarcity leading to disruption to operations.	11 – 20	Production could be reduced or even halted temporarily.	Maximising recirculation and reuse of processing and mine water in order to reduce dependence on water supplied by the local utilities, or abstracted from the Vaal River.
Mali	03. Physical: Increased water stress or scarcity (leading to e.g. disruption to operations, higher commodity/energy prices)	Increased water stress or scarcity leading to disruption to operations.	Current	Production could be reduced or even halted temporarily.	Maximising recirculation of process water and the re-use of mine pit water in the processing areas in order to reduce dependence on groundwater abstraction.

### 3.2

**What methodology and what geographical scale (e.g. country, region, watershed, facility) do you use to analyze water-related risk across your operations?**

Risk methodology	Geographical scale
<p>There is an ongoing process for identifying, evaluating and managing significant risks and internal controls, and where weaknesses are identified these are promptly addressed as risk mitigation processes are part of the group's overall risk management framework. The group has a sound system of internal control for all identified risks (including water), based on policies and guidelines, in all material subsidiaries and joint ventures under its control. The risk management system has been designed to ensure that the requirements of the South African King Code and the US Sarbanes-Oxley Act are met. 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. The board also takes account of material changes and trends in the risk profile, and considers whether the control system, including reporting, adequately supports the board in achieving its risk management objectives. The board also receives assurance from its Audit and Corporate Governance Committee, which derives its information, in part, from regular internal and external audit reports and, where considered necessary, from other reports on risk and internal control throughout the group. Full reviews of risk control and disclosure processes are undertaken regularly.</p>	Facility

3.3 Do you require your key suppliers to report on their water use, risks and management?  
No

3.4 Is your supply chain exposed to water-related risks (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?  
Yes

3.4a Please describe the current and/or future risks to your supply chain, the ways in which these risks affect or could affect your operations and your current or proposed strategies for managing them

Country or geographical reach	Risk type (to supplier)	Risk description	Timescale (years)	Potential business impact (to responding company)	Risk management strategies (by responding company)
Other: All countries	16. Other: Reputational damage	Water pollution caused by one of the company's suppliers could affect that company's reputation. For example, if a cyanide supplier was to spill cyanide into a water course.	Current	If the company's suppliers (e.g. cyanide supplier) were to pollute water on a large scale, this could raise the company's costs and even affect their ability to survive.	If one of the company's suppliers was affected, there are many alternative suppliers that we could choose from.

4.1 Please describe any detrimental impacts to business related to water your company has faced in the past five years, their financial impacts and whether they have resulted in any changes to company practices

Discharge of cyanide and arsenic into the environment led the Ghanaian Environmental Protection Agency (EPA) to issue an Enforcement Notice for the closure of tailings storage facilities for a period of 12 days in 2007 and to an extended Enforcement Notice requiring remediation by June 2008. (This deadline was subsequently extended to June 2009). See the case studies at [www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/obuasi-environment.htm](http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/obuasi-environment.htm) and [www.anglogold.co.za/subwebs/InformationForInvestors/Reports08/Obuasi-environment-update.htm](http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports08/Obuasi-environment-update.htm).

In Ghana and South Africa there has been a material increase in expenditure on water retention capacity, pollution and supply efforts over the past 5 years. This has resulted in decreased abstraction of raw water, increased reuse of process water, increased separation of 'clean' and 'dirty' water, and better pollution control by treating water before releasing it to public water courses. A case study on some of the South African efforts may be found at [www.anglogoldashanti.co.za/subwebs/informationforinvestors/reports10/Sustainability/vaal-water-recycling.htm](http://www.anglogoldashanti.co.za/subwebs/informationforinvestors/reports10/Sustainability/vaal-water-recycling.htm).

5.1

**Do water-related issues present opportunities (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?**

Yes

5.1a

**Please describe the current and/or future opportunities, the ways in which these opportunities affect or could affect your operations and your current or proposed strategies for exploiting them**

Country or geographical reach	Opportunity description	Timescale	Potential business impact	Strategy to exploit opportunity
Other: All countries of operation.	Opportunities to reduce water consumption, such as exploring lower water consumption technologies.	Current	Reducing the volumes of water consumption has obvious cost advantages in the longer term as well as improved water security and capital expenditure implications in the short-term.	There are various projects under way across the company to reuse process water and reduce fresh water consumption.
Ghana	Improving relationships with local communities through improving the quality of water released from operational areas.	Current	Improved reputation with regulators and communities leading to reduced business disruptions and simultaneous increases in capital and operating costs required to install infrastructure, such as additional containment structures and water treatment plants.	Water treatment capacity has been increased and is being further increased. As described above, the ability to reuse process water and reduce fresh water consumption is also being improved.
Other: Operations in remote areas of less developed countries	Where feasible, enhancing the company's reputation through providing assistance, technology and knowledge transfer to communities resulting in them being able to improve the quality of their available water and sanitation.	1 – 5	Where the neighbouring communities are able to sustain improved levels of water quality and sanitation, improved living conditions and health are ensured. This has reputational benefits for the company and improved goodwill between the company, regulators and the community. It also results in potentially fewer disruptions by communities to operations in remote areas.	Opportunities to build water supply dams and/or provide water reticulation are evaluated regularly, as are communities' and local governments' capacity to maintain them in the long term.

6.1

**Has your company identified any linkages or trade-offs between water and carbon emissions in its operations or supply chain?**

Yes



## 6.1a

Please describe the linkages or trade-offs and the related management policy or action

Linkage or trade-off	Policy or action
In South Africa, there is pumping of water from deep underground mines, which ingresses to the workings via cracks and fissures from higher aquifers and this requires considerable electrical energy usage in some cases.	For several years, the South African operations have had in place a load shifting management process to phase evacuation pumping, as far as practicable, outside of peak electricity demand periods. In addition, where technically feasible, grouting of the major inflow pathways of aquifer water ingress into underground workings is undertaken.

**Module: 2011-Water-Account**  
**Page: 2011-Water-7-Withdrawals**

## 7.1

Are you able to provide data, whether measured or estimated, on water withdrawals within your operations?

Yes

## 7.1a

Please report the water withdrawals within your operations for the reporting year

Country or geographical reach	Withdrawal type	Quantity (ML/yr)	Proportion of data that has been verified (%)	Comments
Argentina	Groundwater	1057	0 – 25	
Australia	Other: Surface water & groundwater + water utility.	3485	0 – 25	
Brazil	Other: Surfacewater & groundwater	3084	0 – 25	Surface water not used at Serra Grande.
Ghana	Other: Surfacewater & groundwater	8468	76 – 100	Surface water not used at Iduapriem.
Guinea	Other: Surfacewater & groundwater	5267	76 – 100	
Mali	Other: Surfacewater & groundwater	6521	0 – 25	Surface water only used at Sadiola. Yatela only uses groundwater.
Namibia	Municipal water	1080	0 – 25	
South Africa	Other: Surfacewater, groundwater & municipal water	20896	76 – 100	A minor amount of wastewater is imported from a third party in South Africa. This is included in the municipal water intake and typically accounts for approximately 1% of the municipal water volume. No

Country or geographical reach	Withdrawal type	Quantity (ML/yr)	Proportion of data that has been verified (%)	Comments
				surface water is used at West Wits.
Tanzania	Surface	3101	0 – 25	
United States of America	Municipal water	1676	0 – 25	

## 7.2

**Are you able to provide data, whether measured or estimated, on water recycling/reuse within your operations?**

No

### 7.2b

**Please explain why you are not able to provide data for water recycling/reuse within your operations**

The company believes this indicator is a useful water use performance metric indicator and has since 2009 developed common definitions on which to base calculations. There are significant volumes of water recycled in the mining and metallurgical processing operations of AngloGold Ashanti and calculating these volumes comprehensively and accurately is a complex task, which will be an area of focus during 2011 and 2012.

For purposes of its annual sustainability report, AngloGold Ashanti has been focussing on developing group wide systems to respond to the GRI's Core Indicators. The information being asked for in this question is derived from the GRI's G3 Indicator EN10, which is an 'Additional Indicator' and the group has therefore not yet developed processes to report this information on an equal basis across all operations.

## 7.3

**Please use this space to describe the methodologies used for questions 7.1 and 7.2 or to report withdrawals or recycling/reuse in a different format to that set out above**

AngloGold Ashanti operations have functional water balances focussed on production activities and infrastructure. Although rainfall levels are not commonly accounted for on an ongoing basis the water inventory effects of rainfall are accounted for.

## 7.4

**Are any water sources significantly affected by your company's withdrawal of water?**

No

### 7.4b

**You may explain here why your company's withdrawal of water does not significantly affect any water sources**

Our operations utilise water under host country license arrangements, or directly from utilities.

Those licenses are typically the culmination of extensive studies into the carrying capacities of water supply systems or sources, whereafter limits are typically imposed to which the company works (e.g. maximum annual abstraction limits from groundwater. This ensures that the offtake volumes are well within the aquifer or river carrying capacity. This not only ensures that other users and the environment are not detrimentally affected, but also that a sustainable supply is available for

continuing production operations for the life of mine.

**Page: 2011-Water-8-Discharges**

8.1

**Are you able to identify discharges of water from your operations by destination, by treatment method and by quality using standard effluent parameters?**

Yes

8.2

**Did your company pay any penalties or fines for significant breaches of discharge agreements or regulations in the reporting period?**

No

8.3

**Are any water bodies and related habitats significantly affected by discharges of water or runoff from your operations?**

Yes

8.3a

**Please list any water bodies and related habitats which are significantly affected by discharge of water or runoff from your operations**

Country	Water body	Impact	Company action and outcomes
Ghana	Watercourses downstream of Iduapriem and Obuasi mines	Contamination of watercourses and habitats situated downstream of Iduapriem and Obuasi mines due to their discharges.	<p>During 2010, the water treatment plant at Iduapriem installed in 2009 was upgraded with the addition of a reverse osmosis plant. The work was undertaken to meet discharge standards.</p> <p>During 2010 and 2011 additional water treatment capacity was installed (and continues to be installed) at Obuasi mine. This includes Actiflow and reverse osmosis treatment facilities to ensure that discharge standards are met at all times.</p>
South Africa	Surface (Vaal River area) and groundwater sources	Surface and groundwater contamination due to seepage from mining activities.	<p>Polluted groundwater is intercepted before it can enter the Vaal River - see the case study at <a href="http://www.anglogoldashanti.co.za/subwebs/informationforinvestors/reports10/Sustainability/vaal-water-recycling.htm">www.anglogoldashanti.co.za/subwebs/informationforinvestors/reports10/Sustainability/vaal-water-recycling.htm</a>. A long-running research programme enables the company to use specially adapted plants to withdraw water and dissolved salts to the surface. See the case study at <a href="http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports08/phyto-remediation.htm">www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports08/phyto-remediation.htm</a></p> <p>Technologies and processes that minimise raw water intake are being introduced. The company is progressively optimising the recycling of process water.</p>

## 9.1

Please provide any available financial intensity values for your company's water use across its operations

Country or geographical region	Financial metric	Water use type	Financial intensity (US\$/ML)	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.
Other: Global	Revenue	Withdrawals	97600	

## 9.2

Please provide any available water intensity values for your company's products across its operations

Country or geographical reach	Product	Product unit	Water use type	Water unit	Water intensity (Water unit/product unit)	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.
Argentina	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	5.0	It is not feasible to benchmark or compare water consumption intensity across the different countries or between operations because there are typically great differences in mining and metallurgical processing designs. For example, some mines are underground operations, requiring greater water volumes (used in cooling circuits), others are open pit mines, having very different design and inherently different water usage requirements. Furthermore, the different types of metallurgical processes employed result in different patterns of water use. For example, heap leach operations have different water use patterns to conventional milling and tailings deposition circuits.
Australia	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	8.8	
Brazil	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	6.3	
Ghana	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	16.9	
Guinea	Gold	Other: Ounce of	Withdrawals	Other: Kilolitres	16.4	

Country or geographical reach	Product	Product unit	Water use type	Water unit	Water intensity (Water unit/product unit)	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.
		gold produced				
Mali	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	14.9	
Namibia	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	12.6	
South Africa	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	11.7	
Tanzania	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	8.7	
United States of America	Gold	Other: Ounce of gold produced	Withdrawals	Other: Kilolitres	7.2	