

AGA MINERAÇÃO

BRAZIL



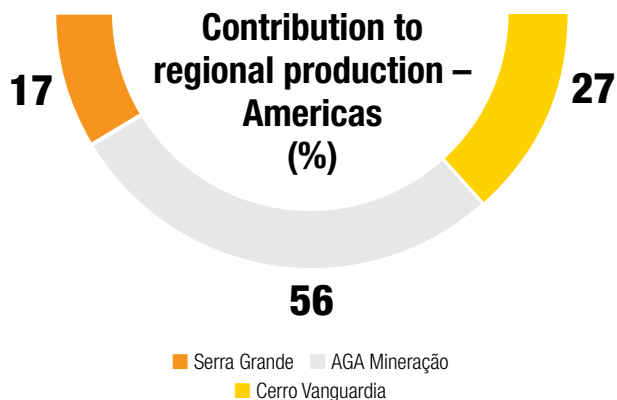
LEGEND: 1 Serra Grande 2 AGA Mineração

Remote operated front-end loader

AngloGold Ashanti Córrego do Sítio Mineração (AGA Mineração), in the state of Minas Gerais, Brazil, comprises the Cuiabá Complex, the Córrego do Sítio mining operation and the Cuiabá and Queiroz plants.

- **The Cuiabá Complex** comprises the Cuiabá and Lamego underground mines, and the Cuiabá and Queiroz plants. Cuiabá has been in operation for over 30 years and Lamego for 10 years. The Cuiabá mine has changed from cut-and-fill to sub-level stoping, increasing the contribution from narrow-vein orebodies to the mine's total production and improving rock-engineering controls related to support, design and monitoring.

Ore from the Cuiabá and Lamego mines is processed at the Cuiabá gold plant. The concentrate produced is transported by aerial ropeway to the Queiroz plant for processing and refining. Total annual capacity of the complete Cuiabá circuit is 1.75Mt. The Queiroz hydrometallurgical plant also produces around 190,000t of sulphuric acid as a by-product, which is sold commercially in local Brazilian markets.



Contribution to group production*

12%

* 2020 group production includes the South African operations to September 2020

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- **Córrego do Sítio (CdS)**, in operation since 1989, consists of one open-pit mine and one underground mine. The oxide ore mined is treated by heap leach and a pressure leaching plant treats sulphide ore. The sub-level stoping mining method is used underground. The distance from the main underground mine (Mina I) to the metallurgical plant is around 15km. Combined annual plant capacity is 1.6Mt.

Gold produced from both Cuiabá and Córrego do Sítio is refined at the Queiroz plant, 14km from the Cuiabá gold plant.

AGA Mineração is currently one of three operations in AngloGold Ashanti's Americas region.

Operating performance

Production

At AGA Mineração, full-year production of 362,000oz was in line with 2019, despite the impact of stoppages and absenteeism due to COVID-19, heavier-than-normal rains in the first half of the year, and geotechnical issues on the high-grade programmed stopes. The Cuiabá complex's production was 7% lower than 2019 due to geological modelling, and the envisaged narrowing of the orebody at the lower levels of the mine.

At the CdS complex, production increased by 22% to 101,000oz compared with 2019. This increase was due to the higher tonnages and grades placed onto the heap leach and the higher tonnage treated in the sulphide circuit. This improvement resulted from the strategy in place at CdS I to increase development and production. Following consolidation of CdS II, plant capacity increased. The improvement project to improve reliability of the sulphide plant was also completed.

Costs

AGA Mineração's all-in-sustaining cost of \$1,050/oz for 2020 was 5% lower than the \$1,107/oz reported for 2019, a consequence mainly of the Brazilian real's depreciation against the US dollar, which was partially offset by higher operational costs, including mine contractors' costs, spare parts and rental of equipment.

Capital expenditure

Capital expenditure increased 13% from the prior year to \$103m, spent mainly on Ore Reserve development, exploration, and enhanced tailings storage facility (TSF) management and maintenance. AGA Mineração also maintained its focus on Ore Reserve and Mineral Resource conversions to improve confidence levels, while work continues to convert the operation's TSFs to dry stacking.

Growth and improvement

Plans to increase gold production are underway, including productivity enhancements from Operational Excellence initiatives initiated during 2020. These include operational and administrative efficiency gains with increasing mine flexibility a key focus. New records for development and processing were set, helping to offset the negative impacts of geological model changes and other operational challenges faced throughout the year, including COVID-19.

Despite a drop in production, the Cuiabá complex achieved record development of 19,357m, an increase of 17% from 2019. Record volumes were processed through at 1.905Mt versus 1.799Mt in 2019, due to outcomes of the Operational Excellence initiatives implemented in 2020.

As part of the long-term growth strategy, regional exploration targets are being investigated, along with plans for deepening the Cuiabá mine and enhancing orebody knowledge at depth.

At CdS, the focus remained on advancing the exploration drilling campaign to enable reserve addition to support mine flexibility and support a future expansion. In the long term, replacement of the Lamego Ore Reserve will provide expansion opportunities at the CdS complex. In the short-to-medium term, exploration, evaluation and implementation of additional production sources are expected at both Cuiabá and CdS II.

Sustainability performance

Safety and health

The two Brazilian operations – AGA Mineração and Serra Grande – achieved 1,067 fatality-free days by year end, a result of strategic safety-focused projects encompassing safety management systems, behavioural programmes, risk management and critical control monitoring. These projects were supported by the DuPont consultancy.

There were no fatalities in 2020 and the overall safety performance as measured by the all injury frequency rate improved marginally to 4.67 per million hours worked.

During 2020, the safe production project was rolled out and an Engineering and Maintenance Excellence Committee was set up in Brazil to address risks and engineering measures to address high-potential safety incidents.

Final certification audits for OHSAS 18001 were conducted. However, the ISO 45001 audit was postponed to 2021 due to the COVID-19 pandemic.

The COVID-19 protocols implemented in the first half of 2020 remain in place and continue to be monitored daily by the operational crisis committee formed by senior leadership and health specialists at the various operational sites.

Employees relations

AngloGold Ashanti's approach to employee relations is predicated on a relationship-based model. We strive to establish constructive relations with our employees and their union representatives based on our company values and our determination to embed interest-based collective bargaining. Working closely with our sites, we are also at the forefront of ensuring that we comply with local legislation and regulatory obligations.

At our Brazilian operations, 24% of employees are registered as union members with 99% being covered by collective bargaining agreements. Wage negotiations were successfully concluded, without strike action, in August 2020.

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Environment

Our environmental stewardship activities are focused on managing the impact of our operations on land, water, air and energy resources.

Environmental management processes are governed by our Group Environment Policy, Standards and Guidelines. The combined assurance audits to assess conformance with our Environmental Standards were impacted by COVID-19 related restrictions, resulting in remote reviews. These reviews will be augmented once the restrictions are lifted.

Changes to Brazilian TSF legislation following the Brumadinho tailings catastrophe prompted amendments to our operating methods, and the TSFs at our Brazilian sites are being converted to dry-stacking operations in advance of the decommissioning of the existing TSFs. Automated scanning stations installed on TSF slopes track and detect movement and will trigger warning sirens in line with emergency preparedness and response plans that have been tested with communities. The necessary TSF safety guidelines were finalised during the year. A dedicated TSF Project Committee monitors progress and timely delivery for all required permits while guaranteeing implementation of all relevant environmental controls. For further details, see <SR>, page 54.

During 2020, the Brazilian operations completed updates to their water accounting systems. Water balance scenarios were run to simulate the effects of the decommissioning of existing TSFs and the transition to filtering and dry stacking technology. This work is essential in informing the future water use needs at each mine site.

One environmental incident was reported. For details, see <SR>, page 48.

Final ISO 14001 certification audits were conducted during the year.

Communities

Our ability to operate successfully is premised on our engagement with communities in an atmosphere of mutual respect. We remain committed to sharing value with communities through training and supplier development programmes and the localisation of employment and procurement opportunities.

We recognise the complexity and diversity of the cultural, economic and social landscapes in which we operate; and aim to balance our ethical responsibilities, regulatory obligations and business objectives. Our host and local communities face intricate socio-economic challenges – especially poverty, high unemployment rates, low economic growth, inadequate infrastructure and access to basic services.

In Brazil, constructive community relations reflect the community's goodwill towards AngloGold Ashanti and imply a level of support by the community for operations and projects. It remains a key strategic objective to maintain and strengthen this social licence at all our operations. In Brazil, social investment in communities prioritises projects focused on culture, social development, health, income generation and environment/sustainable solutions.

Major initiatives are:

- **Sustainable Partnerships Programme (Public call for projects):** Social projects supported by the company are selected by a committee comprising AngloGold Ashanti, social projects specialists and community representatives, in line with the open and transparent management of social investments. In 2020, more than R\$1.1m was invested in 23 projects.
- **Tax incentives:** In Brazil, specific laws allow the company to invest part of the income tax due in projects approved by the federal government in areas such as culture, sport, children and youth, elderly and disabled people, as well as health (particularly oncology). AngloGold Ashanti invested around R\$18m in such initiatives for implementation in 2021.
- **Volunteerism:** The Holding Hands Programme, established in 2004, has benefited more than 50,000 people through more than 330 activities (6,300 voluntary participators) over the years. The programme aims to encourage employees to become involved in and to contribute to social causes within the local municipalities where the company operates.
- **Good Neighbourhood Programme:** This initiative aims to strengthen AngloGold Ashanti's relationship and dialogue with communities in Brazil. It includes regular community meetings and publication of a newspaper. A toll-free hotline also receives grievances and complaints.

Land-related challenges included unauthorised settlement on our broader concessions in Nova Lima and Raposos, in the vicinity of our operations. These challenges, which are ongoing, are caused by migration into urban areas where living space is limited. We continue our efforts to create partnerships with municipal governments for the implementation of low-income housing projects.

COVID-19 community response in Brazil

- \$280,000 donated to hospitals in the Minas Gerais and Goiás states
- COVID-19 awareness campaign conducted, educating employees and communities about the virus and providing ways to protect themselves and loved ones
- Paid employee salaries and benefits during operational shutdown
- Supplied 28 respirators to hospitals and health units in Minas Gerais and Goiás
- Distribution of food parcels, personal protective equipment and sanitisers to communities
- Employees volunteered in seven host communities promoting awareness of COVID-19 with 452 participants volunteering in more than 36 initiatives, amounting to 847 hours and more than 6,072 beneficiaries

See the case study entitled *Supporting employees and communities in Brazil*.

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Key statistics

AGA Mineração	Units	2020	2019	2018
Operating performance				
Cut-off grade ⁽¹⁾	oz/t	0.089	0.093	0.053
	g/t	3.06	3.20	1.82
Recovered grade	g/t	2.96	3.49	3.81
Tonnes treated/milled	Mt	3.8	3.2	2.9
Gold production	000oz	362	362	364
Total cash costs	\$/oz	747	782	723
All-in sustaining costs	\$/oz	1,050	1,107	973
Capital expenditure	\$m	103	91	96
Productivity	oz/TEC	8.98	9.97	10.60
Safety performance				
No. of fatalities		0	0	1
All injury frequency rate (AIFR)	per million hours worked	4.67	4.75	5.05
People				
Total average no. of employees		5,528	4,885	4,736
– Permanent		3,758	3,517	3,418
– Contractors		1,770	1,368	1,318
Environmental performance				
Water use	ML	8,063	6,825	4,717
Water use efficiency	kL/t	2.12	2.11	1.59
Energy consumption	PJ	1.98	1.83	1.72
Energy intensity	GJ/t	0.52	0.57	0.58
Greenhouse gas (GHG) emissions	000t	59	52	45
GHG emissions intensity	t CO ₂ e/t	16	16	15
Cyanide use	t	969	738	781
No. of reportable environmental incidents		1	0	0
Total rehabilitation liabilities	\$m	47	62	49
Social performance				
Community investment	\$000	478	1,512	1,209
Payments to government ⁽²⁾	\$m	139	109	107

⁽¹⁾ Based on the Ore Reserve.

⁽²⁾ Total paid to the Brazilian government for AGA Mineração and Serra Grande.

For further information on AngloGold Ashanti and its work and performance, as a group and in the Americas region, see the <IR> and <SR> which are available online at www.aga-reports.com