Gold, ESG and Sustainability

A Summary

WGC: Responsible Gold, Sustainability and ESG



Responsible gold mining



Responsible Gold Mining Principles (RGMPs)

- A framework which reflects expectations of responsible gold mining
- Provides investor and consumer confidence that their gold is ethically sourced
- Developed with strong input from civil society, investors, governments and supply chain participants
- Conformance requires full public disclosure and independent assurance
- Reflects the commitment of the world's leading gold mining companies

















Image courtesy of Newmont Mining, Yanacocha, Peru

Responsible Gold Mining Principles

Governance

1. Ethical conduct

- Legal compliance
- Code of conduct
- Combating bribery and corruption
- Political contributions
- Transparency
- Taxes and transfer pricing
- Accountability and reporting

2. Understanding our impacts

- Risk management
- Stakeholder engagement
- Due diligence
- Impact assessment
- Resolving grievances

3. Supply chain

- Supply chain policy
- Local Procurement
- Market access for ASM

Social

4. Safety and health

- Safety
- Safety management systems
- Occupational health and wellbeing
- Community health and emergency planning

5. Human rights and conflict

- UN Guiding Principles
- Avoiding complicity
- Security and human rights
- Conflict

6. Labour rights

- Wages and benefits
- Preventing discrimination and bullying
- Child and forced labour
- Freedom of association and collective bargaining
- Diversity
- Women and mining
- Raising concerns

7. Working with communities

- Community consultation
- Understanding communities
- Creating local benefits
- Seeking community support
- In-migration
- Indigenous Peoples
- Cultural heritage
- Resettlement

Environment

8. Environmental stewardship

- Managing environmental impacts
- Tailings and waste management
- Cyanide and hazardous materials
- Mercury
- Noise and dust

9. Biodiversity, land use and mine closure

- Biodiversity
- World Heritage Sites
- Land use and deforestation
- Mine closure

10. Water, energy and climate change

- Water Efficiency
- Water access and quality
- Combating climate change
- Energy efficiency and reporting

Consultation during development of RGMPs

- Two rounds of consultation on draft RGMPs in 2018 and 2019.
- Online questionnaires and direct outreach to stakeholders.
- Independently hosted multi-stakeholder roundtables
- Input received from c.300 individuals and institutions:
 - Governments and international organisations
 - Investors and ESG ratings agencies
 - Mining companies (and associations) and gold supply chain participants
 - NGOs, think tanks and academics
 - Community groups

The social and economic impacts of gold mining

The social and economic contribution of gold mining

Key Highlights

In 2020, World Gold Council Members:

- Contributed **US\$37.9bn to the GDP** of host economies
- Directly paid US\$8.7bn in employee wages and US\$7.6bn in tax payments to governments in 38 host countries
- Direct payments of US\$26.2bn were made by members through in-country procurement
- The total GDP contribution in gold mining intensive countries is **comparable to the value of Overseas Development Assistance** they receive
- **1.4 million people are employed** directly and indirectly by Members and their local supply chains
- Every local job at gold mining operations supports six more, or close to ten more if induced jobs are included
- Local employees make up 95% of the in-country workforce
- An estimated **17.5% of employees are women** compared to 5-10% in the wider mining sector



The social and economic contribution of gold mining

Gold mining industry's contribution to the UN Sustainable Development Goals (SDGs)

When undertaken responsibly.....

The *Responsible Gold Mining Principles* provide an **over-arching ESG framework** which defines responsible gold mining



....gold mining contributes significantly to sustained social and economic development

including through **employment**, **infrastructure**, **healthcare**, **education**, **environmental stewardship**, and tax and royalty **payments to government**



SDG 3 Good Health and Well-Being

AngloGold Ashanti

Malaria in Ghana

After achieving a 75% reduction in malaria cases over a three-year period at the Obuasi mine, the program was expanded across Ghana in partnership with the Global Fund.

Golden Star Resources

Helping Babies Breathe

To tackle the high rates of infant mortality in Ghana Golden Star started the Helping Babies Breathe initiative, bringing sustainable neonatal resuscitation capability and capacity to communities where it is most needed.

Sibanye Stillwater

Eradicating TB

Sibanye has reduced the number of active cases of TB at their South African operations from 832 in 2014 to 237 in 2020. This has been attributed to improved testing and access to primary health care.



Healthcare applications

Gold also contributes directly to SDG 3 via its important role in a number of critical healthcare tools. It is a vital component in the medical diagnostics sector, and is under evaluation for numerous therapeutic applications





Responding to COVID-19

Gold is at the heart of most COVID-19 rapid antigen tests, which are an important part of the diagnostic toolkit for this. These reliable, fast and costeffective tests are available all around the world, and are key tools in quickly identifying outbreaks of the virus.

Novel vaccine development

Gold Nano Particles (GNPs) are being used in the development of novel vaccines. They can be utilised as a carrier system for vaccines targeting a significant number of diseases including Dengue, Zika and Yellow Fever.



Gold and Climate Change

Gold and climate change

Our work to date

- Quantified gold's carbon footprint, including Scope 1, 2, and 3 emissions
- Explored possible **industrial/technological applications** for gold that might contribute to enhanced energy use and emissions reduction
- Outlined a **potential pathway to net zero for gold**, identified as increasingly accessible and cost-effective
- Identified the practical steps that gold miners are taking and can take to decarbonise in line with Paris climate targets
- Examined how gold might represent a climate risk mitigation asset (balancing climate-related risks in investment portfolios)
- Identified gold mining's vulnerabilities to physical climate impacts and its adaptation strategies to build greater mine site and community resilience.





Gold's carbon footprint

- 99% of gold supply chain GHG emissions are from gold mining
- 80+% of gold mining emissions relate to power consumption:
 - fossil fuels used to generate electricity at mine sites
 - purchased electricity
- The **opportunity** is clear:
 - decarbonising mining = decarbonisation of gold



Gold - the pathway to Net Zero



Gold - the pathway to Net Zero

Decarbonising power





Power emissions intensity (%, 2019)

Gold – decarbonisation and development impacts

"Energy is the golden thread that connects economic growth, social equity, and environmental sustainability."

Ban Ki-moon, The Secretary-General of the United Nations, 2012

Gold as a portfolio asset and climate-related risks

Risk reduction due to

- Physical gold has minimal downstream (Scope 3) emission
- Gold production has a credible and accessible decarbonisation pathway

35.75

Gold's value is relatively insulated from a volatile/rising carbon price

8.05

SAID II

Decarbonising investment portfolios

Key Findings

The benefits of gold allocations on a global multi-asset portfolio (of equities and corporate bonds) include:

- Reducing the portfolio's overall carbon footprint
- Increasing portfolio alignment to climate decarbonisation targets and Net Zero scenarios
- Reducing the vulnerability of the portfolio to climate transition risks and shocks, such as the introduction of a carbon tax (i.e. the rising cost of carbon)
- Gold's positive carbon impacts are achieved without sacrificing its contribution to enhancing portfolio risk-adjusted returns



19

Physical Risks

Adaptation and Resilience



Gold mining vulnerabilities and climate impact drivers



Gold mining vulnerabilities and climate impact drivers

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	Water management		Excavation workings	Geology Rock excavation equip Stockpiles Dredging	ment			
(i)	Ground stability		Ĵ	Access arrangements Mine shaft systems Haulage				
02.12	Landslides or dam failure		Buildings	Headframe Hoise House Offices	_ 4			+
•••	Mobility, transportation and access to sites		Mechanical process	Water supply Power infrastructure Communication Infrastr Conveyor Mill/Crushers	ucture			
0	Disruption to energy infrastructure and supply		Material ,	Floatation/Tanks Filteration/Seperation Stockpiles Stacker/Reclaimer	- 4			
	Worker health and safety	Host/local community vulnerabilities		Offsite Haulage onsho Offsite Haulage offsho Tailings		Į.	-	
	Efficiency and performance of mining equipment	 Poverty and literacy levels impacting resilience Impact on food supply Increased prevalence of diseases Competition for resources 	Waste Host community: health and wellbeing	Rock Water Labour productivity Morbidity Mortality		+		
	Closure and post-closure of mine sites	 Wildfire risk Loss of home and personal asset Loss of community infrastructure including utilities 	Host community: poverty, livelihoods and sustainable development	Housing stock Farmland Livestock mortality Indigenous traditions	-			
)*	Biodiversity restoration and protection	 Climate induced migration Compound risks increase the vulnerabilities of local populations. 		Water Supply	Low releva	ance	M	/lec

Heat and Wet and dry Wind Snow and ice Coastal Open ocean Other cold 1edium relevance High relevance

Building future adaptive capacity and resilience

RECOMMENDED further actions that might enhance future resilience:

1. Strive for **greater sectoral consistency and knowledge sharing in defining methodologies** for assessing climate vulnerability and adaptation

- 2. Balance consideration of acute risk with a longer-term view on chronic risks
- 3. Incorporate an acknowledgement and understanding of combined compound risks
- 4. Integrate community risks into local vulnerability appraisals and resilience plans

5. Use local and indigenous knowledge of climate change and weather impacts to inform their climate risk assessment process

6. Share knowledge and resources with local communities, and adopting a multi-stakeholder approach to adaptation planning and designing for climate change resilience

7. Plan for innovation, using data and technology to produce a more dynamic approach to managing climate-related vulnerabilities and potential physical hazards.



Gold Industry Declaration of Sustainability Principles

An industry-wide statement of ambition and intent on responsible business practices and sustainability objectives

Coming together...

...to put Principles into Practice; to produce Profit with Purpose...

"The world has problems governments can't solve; we need the innovation of business... We need the ability of business to drive new things at scale... Industries collaborate, governments start to regulate and it becomes a virtuous circle" darian stibbe, THE PARTNERING INITIATIVE

The sustainability challenges our world faces today are too big for any individual company to tackle. Pooling resources, intelligence, *leadership, and common sustainability goals* with other companies, even with competitors, can elevate the level of results and make a significant difference. " O Network for Business Sustainability

... moving towards Convergence, **Collaboration and Consensus**

Gold Industry Declaration of Responsibility and Sustainability Principles

- 1. Aligning gold industry practices and operations with the **relevant responsible sourcing standards**.
- Supporting the advancement of the UN Sustainable Development Goals (SDGs) by working with partners in 2. government, industry, and civil society.
- **Respecting human rights** by aligning the gold industry's activities with the United Nations Guiding Principles for 3. Business and Human Rights and the core labour rights of the International Labour Organisation, including an absolute commitment to high safety and health standards.
- Promoting diversity, equity, and inclusion in our organisations and across the industry, supporting the 4. representation and participation of people of different genders, ages, races and ethnicities, abilities and disabilities, religions, cultures and sexual orientations.
- Considering the impact of the gold industry's activities on Indigenous Peoples and other potentially 5. vulnerable populations.
- Improving the gold industry's understanding of its impacts on climate change and to reporting its positions on climate change, aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).
- Working to reduce the gold industry's greenhouse gas emissions, in line with goals of the Paris Agreement. 7.
- Exploring opportunities to support responsible Artisanal and Small-Scale Mining (ASM) in the formalisation 8. of the sector, to improve its environmental, social and governance performance, and to encourage closer engagement between ASGM actors and the formal gold supply chain.
- Encouraging industry-wide participation and collaboration in advancing and implementing these Principles. 9.
- 10. Reporting on progress in the implementation of these Principles.

Gold Industry Declaration of Responsibility and Sustainability Principles

unique role in the global economy; in stimulating economic growth, in and families, and in enabling advances in medical, environmental and communication technologies. Public trust is fundamental to the many positive contributions that gold makes to socio-economic progress. To mainta trust, we - key participants in the global gold industry - are committed to operating responsibly and sustainably, from mine to market, and this declaration sets out the principles that guide that commitment.

The cold supply chain is complex and clobal. Gold is mined on every continent except Antarctica, refined products containing gold are distributed across the globe in multiple sectors.

The gold industry has an opportunity to demonstrate and expand its contributions to susta through our commitment to the advancement of the UN Sustainable Development Goals (SDGs). We acknowledge that a commitment to high standards of responsible and sustainable business practices is critical. We also recognise the w the gold industry collectively supports this ambition, as well as our cor

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Demonstrating alignment with the Principles

This Declaration is intended as a clear statement of sectoral aspiration and intent. In most instances, gold market participants who want to demonstrate their commitment to the Declaration will do so through their adherence to initiatives that are designed for the specific activity in the supply chain. Specifically, it should be noted that:

- Gold mining companies can demonstrate their alignment with the Declaration through adherence to the World Gold Council's Responsible Gold Mining Principles · Gold refining companies can demonstrate their alignment with the Declaration through adherence to the LBMA'

Responsible Gold Guidance. As support for the Declaration grows, we expect a range of industry reference and proof points to be identified to demonstrate the ongoing progress and alignment of the wider gold industry with these Principles.



... moving towards Convergence, **Collaboration and Consensus**

Gold Industry Declaration of Responsibility and Sustainability Principles

- 1. Responsible Sourcing.
- 2. Sustainable Development Goals (SDGs)
- 3. Human Rights
- 4. Diversity, Equity, and Inclusion
- 5. Indigenous Peoples and Vulnerable Populations
- 6. Climate Change Reporting
- 7. Climate Change Emissions Reduction
- 8. Formalisation/Professionalisation of Artisanal and Small-Scale Gold Mining (ASGM)
- 9. Industry-wide Collaboration
- **10. Reporting on Progress**

Gold Industry Declaration of Responsibility and Sustainability Principles

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An Industry-wide Statement of Ambition and Intent

Gold Industry Declaration of Responsibility and Sustainability Principles

Signatories to the Declaration:

London Bullion Market Association (LBMA) World Gold Council (WGC), Singapore Bullion Market Association (SBMA) China Gold Association (CGA) Swiss Association of Previous Metals Producers and Traders (ASFCMP) London Metal Exchange (LME) Dubai Multi Commodities Centre (DMCC) Indian Gold Policy Centre (IGPC) Indian Bullion and Jewellery Association (IBJA) Indian International Bullion Exchange (IIBX) World Jewellery Confederation (CIBJO) Artisanal Gold Council (AGC) Responsible Jewellery Council (RJC) Watch and Jewellery Initiative 2030 (WJI2030)

Declaration of Principles - Scope and focus...

"...My reaction to the declaration was that it is strategically important to get a common positioning that role players along the value chain can all subscribe to. Inevitably that means it will be very high level ... to accommodate all

participants though it should have enough substance to carry credibility externally. As long as we can hit the sweet spot, we

shouldn't get too hung up on detail as progress towards the end goal is more important, and this is the first step that has to be taken if we want to complete the marathon..."

Declaration of Principles Working Group participant

What a Declaration of Principles is:

- Widely applicable it provides guidance that can be applied to a variety of conditions and circumstances.
- Flexible it can accommodate rapid changes, and focuses on the *spirit* of commitments and the overall objectives.
- Inclusive it is a collective statement of intent and shared objectives and commitments
- Informative/Educational it can serve as a quick reference tool, allowing those unfamiliar with the sector to very quicky grasp the nature and scope of its a wareness and commitment to progress

What a Declaration of Principles is not:

- Principles are not Rules
- A Declaration is **not a Standard or a Framework for performance measurement**
 - A Declaration/Statement of Principles often precedes a set of standards (e.g. see the Declaration section Section A of the RGMPs)
- A Declaration does/need not identify how Principles should be implemented or how progress should be measured
 - A Declaration of Principles should avoid being mechanistic and leading to 'box-ticking' or the need for elaborate conditions to define the terms of compliance

A Sectoral Sustainability Journey... Foundations and Forward Motion

Awareness \rightarrow Knowledge \rightarrow Commitment \rightarrow Action \rightarrow Measurement \rightarrow Improvement Standards & Certification Action Data & Disclosure Commitment Guidance Principles Understanding⁴

What next?

Moving forward...

Evidence and examples:

- of current frameworks, guidance and standards
- of current (corporate) good practice
- of partnerships and collaboration
- of progress data, metrics and 'proof points'

Cross-industry dialogue and engagement

- E.g. on the current issue of the potential re-definition of Recycled Gold
- Collective awareness and understanding information exchange and shared problem-solving...?



Artisanal and Small-Scale Gold Mining Challenges and why they matter...

ASGM Challenges

- 15 million + direct livelihoods from ASGM
- 20% of newly-mined gold production from ASGM sector
- 80% undertaken outside of legal frameworks
- Growth driven by high prices; unemployment; conflict; displacement; climate change
- Value of ASGM economy c. \$40 billion p.a. (BUT it's opaque!)
- Association with illicit flows, smuggling, money laundering, organised crime
- Environmental degradation
- Poor safety performance; breaches of labour standards
- Fragmentation of production units inhibits due diligence and restricts market access



Relevant International Initiatives

- Minamata Treaty National Action Plans and Planet Gold and bilateral programmes
- OECD Guidance on Responsible Sourcing of Minerals
- World Bank mine sector reforms and capacity-building
- Extractive Industries Transparency Initiative increasing coverage of ASM issues
- Intergovernmental Forum on Mining
- London Bullion Market Association
- World Gold Council Responsible Gold Mining Principles
- Responsible Minerals Initiative





	Extractive Industries Transparency Initiative
	Industries
	Transparency Initiative





Why ASGM matters to the World Gold Council

- Biggest social/developmental challenge for gold sector
- Illegal mining and unregulated ASGM is a source of instability for gold market
- Illegal/unregulated mining fuels and finances conflict and corruption in some producer countries
- Reputational and security challenges for gold
- ASGM can be a major source of operational disruption for WGC companies

Our Policy Objectives

- Seek to promote positive developmental impacts of ASGM
- Promote formalisation of small-scale mining rule of law
- Reduce environmental hazards associated with mercury and cyanide use
- Co-operate with others in countering illicit flows
 - Spread responsible management practices



World Gold Council ASGM-related workstreams

	ASGN							
Knowledge Sharing	Advocacy and Engagement	LSM/ASGM interface	Central Banks					
Activities								
Member company working group	Policy forums (e.g. OECD and IGF)	Published 'Lessons Learned' report	Published 'CB Domestic ASGM Purchase Programme' report					
ASGM Resource Centre	World Bank West Africa partnership	Support WGC companies	Formation of study group					
Monitoring developments	Promote Linkages for Companies (e.g. Planet Gold)		'Circle of trust' framework					
Stakeholders								
	Governments	WGC Companies	Central banks and governments					
	International organisations	Producer country governments	International organisations					
WGC companies	NGOs	LMBA/refiners	LMBA/refiners					
	Downstream users (e.g. LBMA, RMI)		37					

LSM/ASGM interface

Large-Scale Miners can support responsible ASGM through:

- Advocacy with host governments to facilitate co-existence arrangements
- Capacity building of ASM groups (e.g. formation of companies or co-operatives, regulatory compliance and business skills)
- Relinquishment or sub-contracting of concession areas unsuitable for industrial mining
- Technical support (e.g. safety; processing etc)
- Sharing geological data
- Integration with company programmes on social investment, supply chains and livelihoods
- Ore purchase programmes or toll treatment of material
- Due diligence or logistical support to get ASM material to market
- Facilitation of access to funding and equipment
- Exploitation of non-gold resources on concession
- Co-operation on closure planning



Lessons learned on managing the interface between large-scale and artisanal and small-scale gold mining



Using Central Bank DPPs to leverage wider ASGM reform





Thank you Any questions?

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