

# ESG data disclosure and responsible mining: leading practices and learnings

# ESG data: TSX guidance

FACTOR	EXAMPLE
Environmental	Greenhouse gas emissions Water usage, scarcity and quality Energy usage Waste and waste management Air pollutants emitted
Social	Human rights Health & safety Community and other stakeholder relations Relations with indigenous peoples Corruption payments to foreign public officials
Governance	Processes and structures of the board of directors including <ul style="list-style-type: none"><li>• Knowledge and skills of directors</li><li>• Independence of board members</li><li>• Mandates and committees of the board</li><li>• Compensation of directors and officers</li></ul>

# ESG data disclosure: why?

## Why manage ESG issues?

- Corporate values
- Compliance
- Competitive advantage
- Risk management

## Why disclose ESG data?

- Ability to know and show
- Strengthen trust and credibility
- Key element of stakeholder engagement

# ESG data disclosure: why?

## CODELCO:

*Being transparent is often an uncomfortable decision, but our experience is conclusive:*

*a policy of this type ends up being extremely profitable, as it helps to regain lost confidence and maintain harmonious relationships with the communities where we operate.*

# ESG data: who is interested?

- Investors, financial institutions, insurers
- Customers and supply chain
- Governments
- Civil society
- Communities
- Workers
- Peers

# ESG data: who is interested?

## Investors

Blackrock: Larry Fink's 2019 letter to CEOs:

- *“Environmental, social, and governance issues will be increasingly material to corporate valuations. This is one of the reasons why BlackRock ...engages with the companies in which we invest on behalf of our clients to better understand your approach to them.”*

# ESG data: who is interested?

## Stock exchanges

LSEG: David Harris, Head of Sustainable Business:

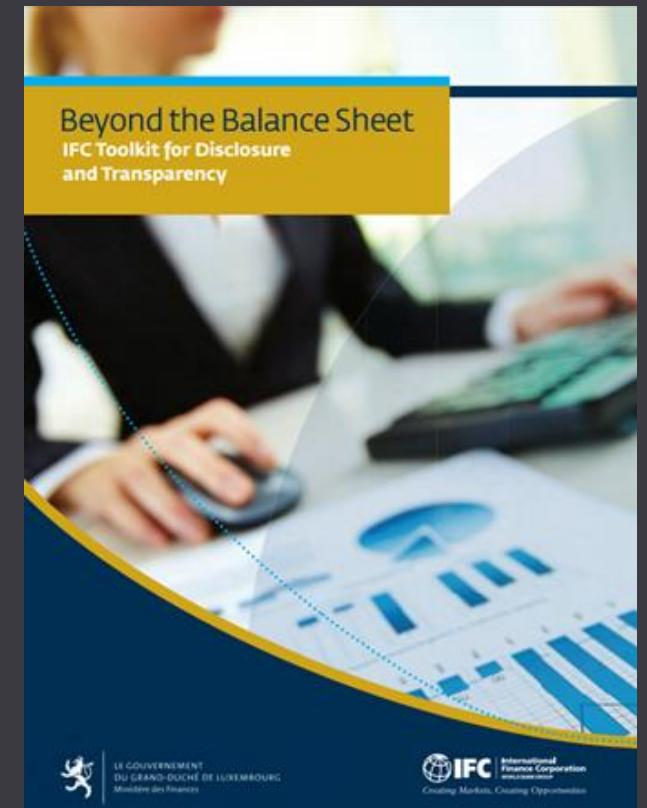
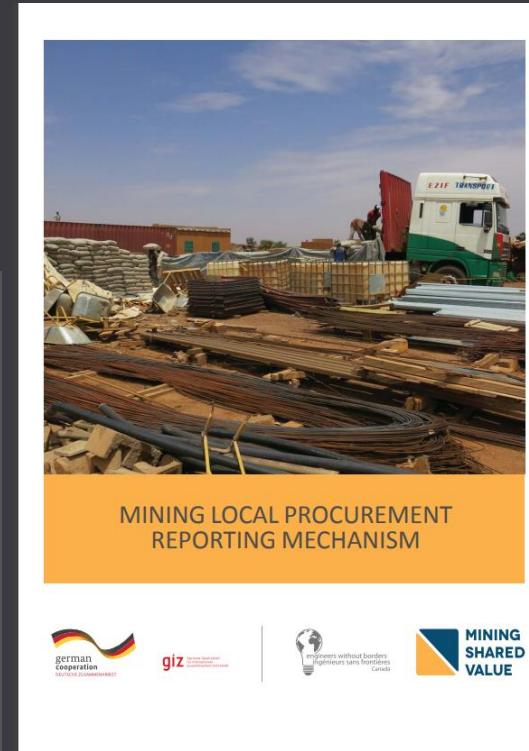
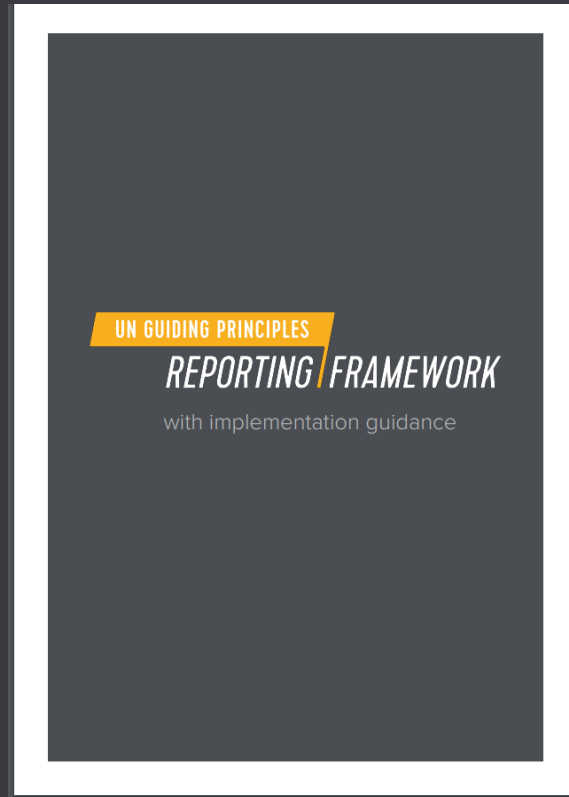
*"We need to move away from the world of pretty CSR reports to hard, investment-grade ESG data."*

# ESG data: who is interested?

- EITI
- GRI
- ICMM
- World Gold Council
- Responsible Steel Initiative
- CDP
- Modern Slavery Act



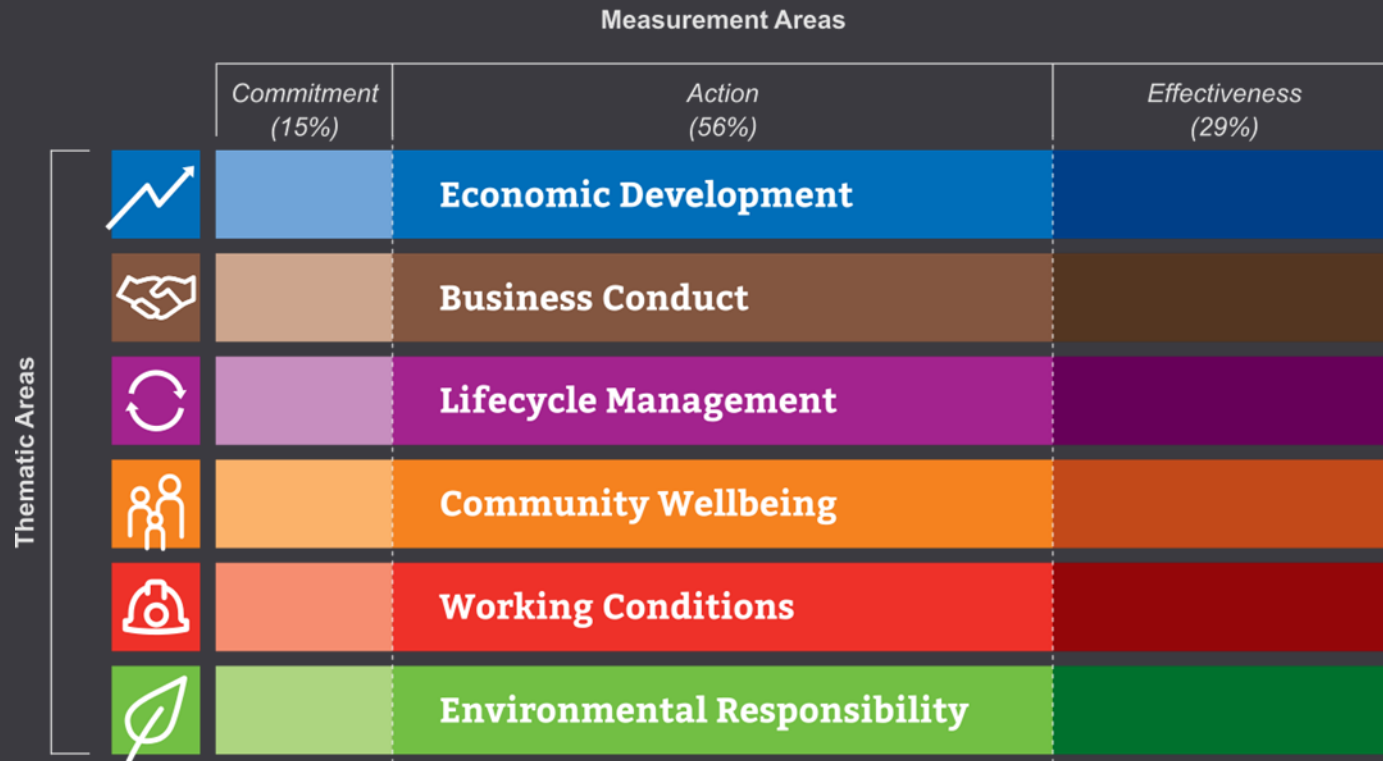
# ESG disclosure: guidance



# ESG disclosure: learnings

# Responsible Mining Index (RMI) 2018

## RMI analytical framework



## Companies assessed

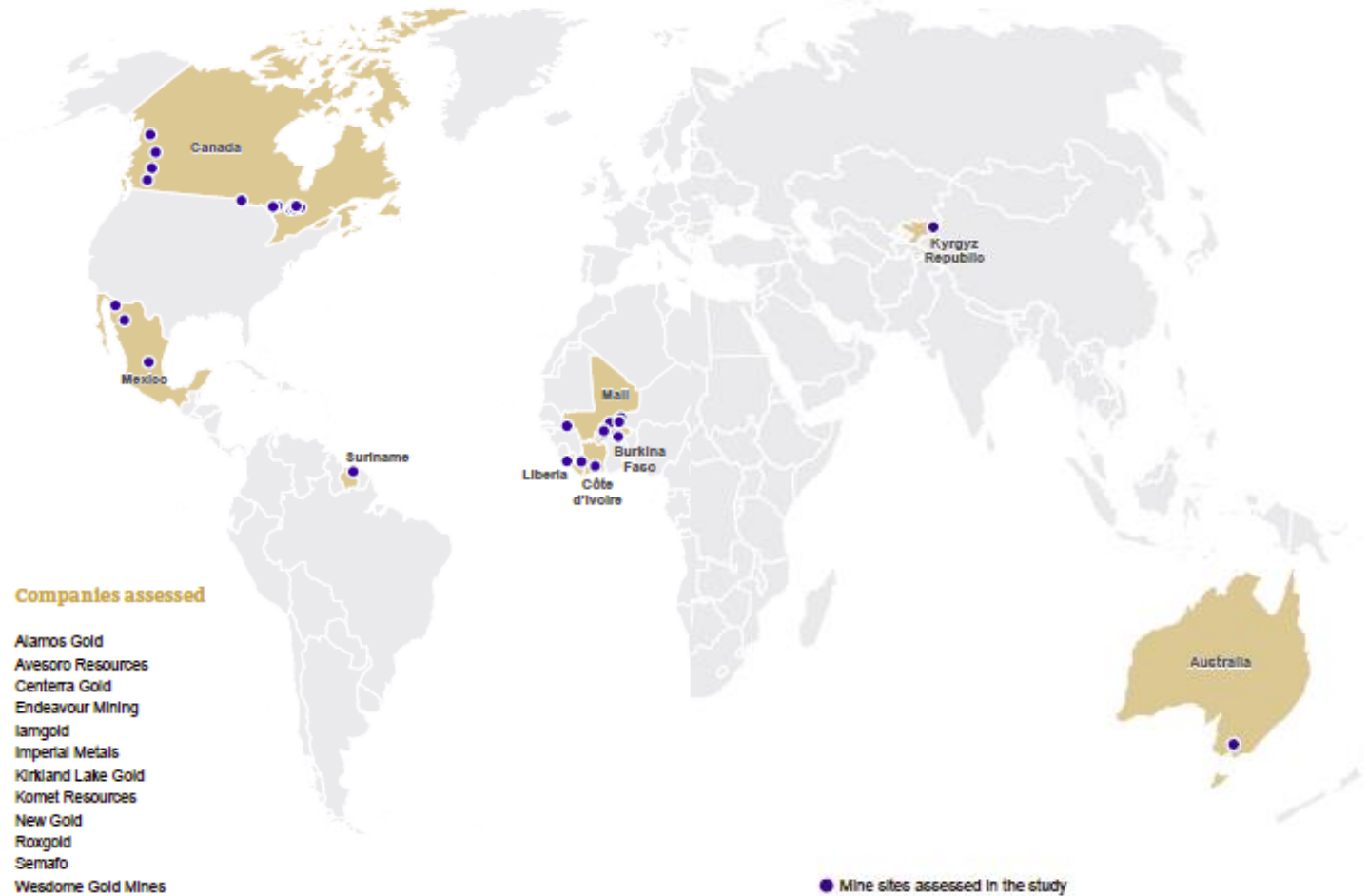
- Anglo American
- AngloGold Ashanti
- Antofagasta
- ArcelorMittal
- Banpu
- Barrick Gold Corp
- BHP
- Bumi Resources
- Coal India
- CODELCO
- ERG
- Evraz
- Exxaro Resources
- Freeport-McMoRan
- Glencore
- Gold Fields
- Goldcorp
- Grupo México
- Industrias Peñoles
- MMG
- Navoi MMC
- Newcrest Mining
- Newmont Mining
- NMDC
- Rio Tinto
- Teck Resources
- UC RUSAL
- Vale
- Vedanta Resources
- Zijin

# Mine-site study on ESG data disclosure

## Mine-site ESG data disclosure by small and mid-tier mining companies



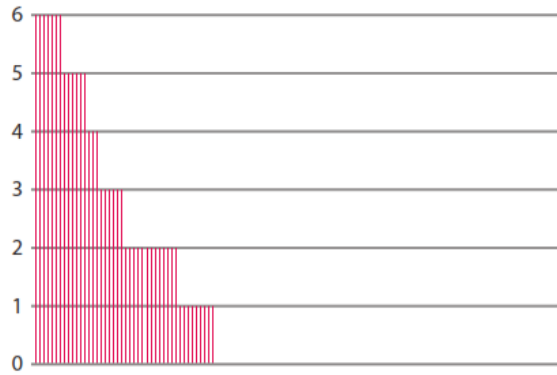
## Geographic and company scope



Site-level data largely  
missing

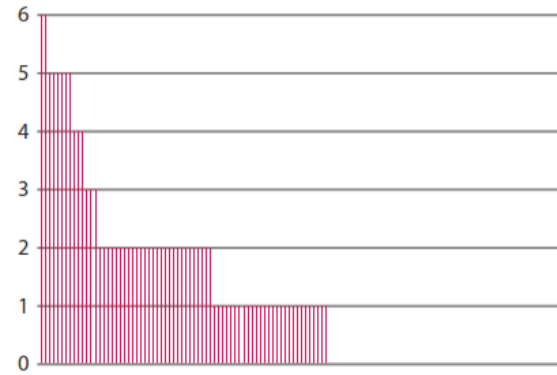
# Mine-site-level data largely missing

## Local procurement



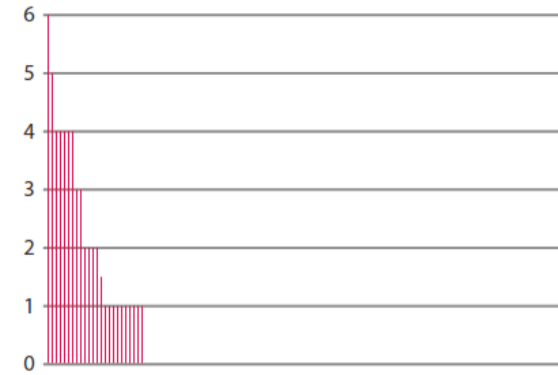
83 mine sites scored 0

## Local employment



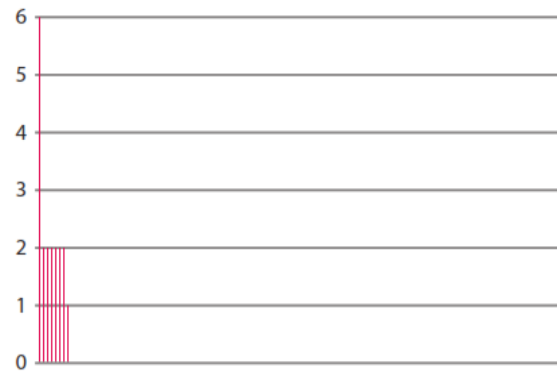
57 mine sites scored 0

## Community grievances



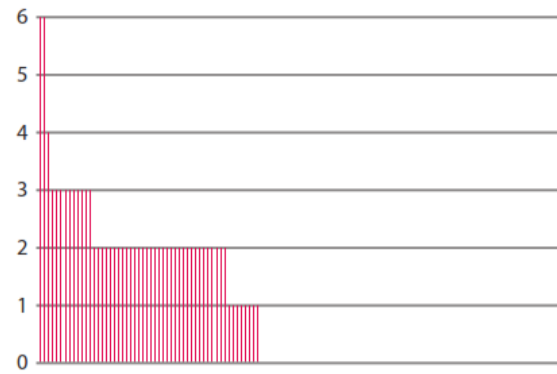
103 mine sites scored 0

## Worker grievances



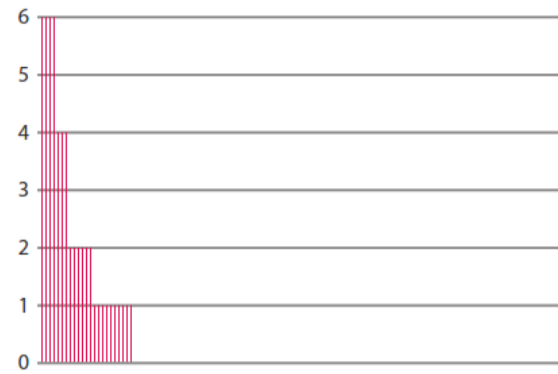
119 mine sites scored 0

## Water quality and quantity



73 mine sites scored 0

## Biodiversity management



104 mine sites scored 0

# Site level data largely missing | Community grievances

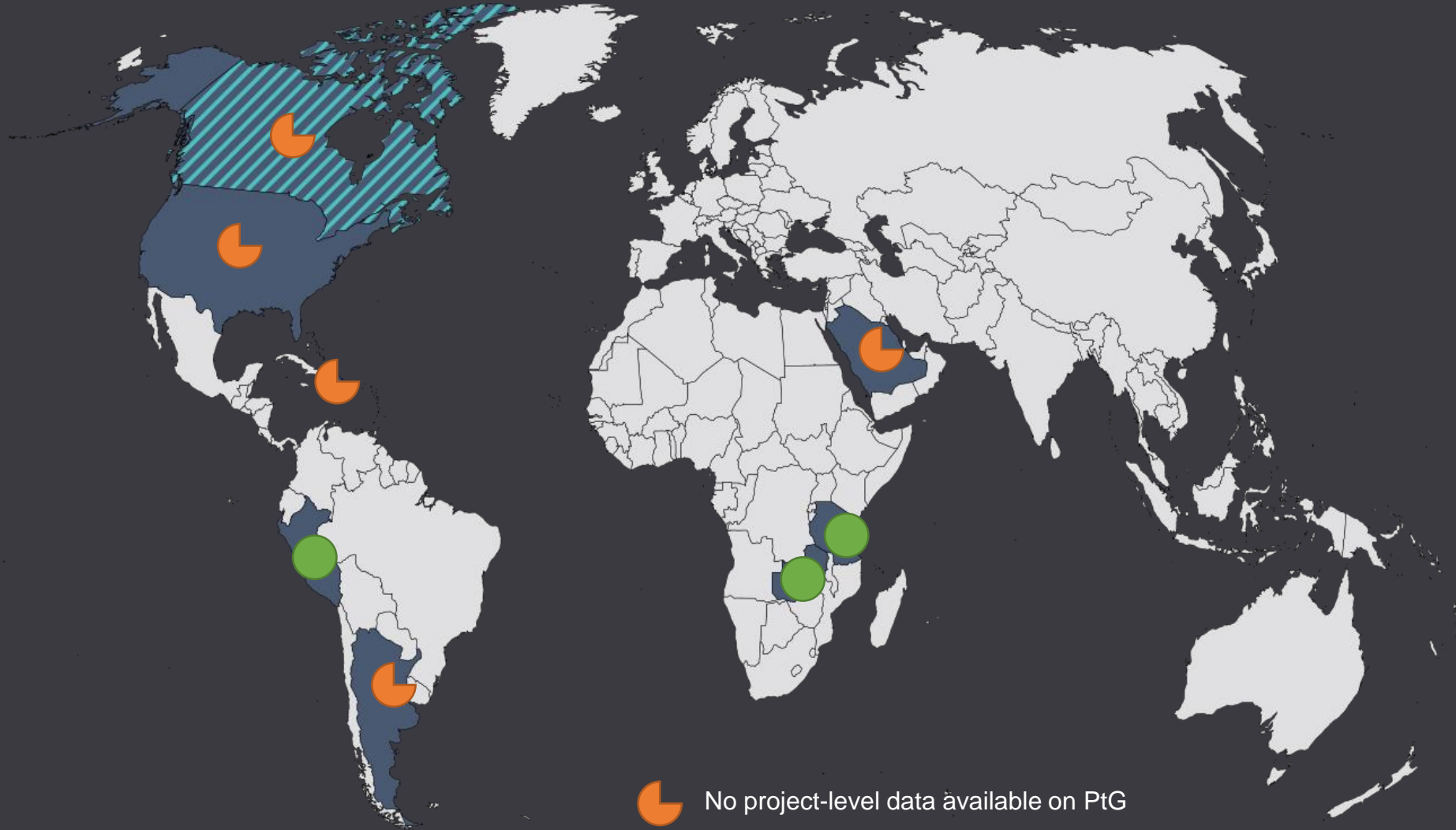
Some companies report on grievance mechanisms performance at a company level, but not at mine-site level.

	Co-wide	Mine Site 1	Mine Site 2	Mine Site 3	Mine Site 4	Mine Site 5
Company A	5.00	2	1.5	0	0	0
Company B	3.00	4	0	0	0	0
Company C	3.00	2	2	0	0	
Company D	3.00	3	0	0		
Company E	3.00	1	1			



External requirements  
improve public disclosure



# External requirements improve public disclosure



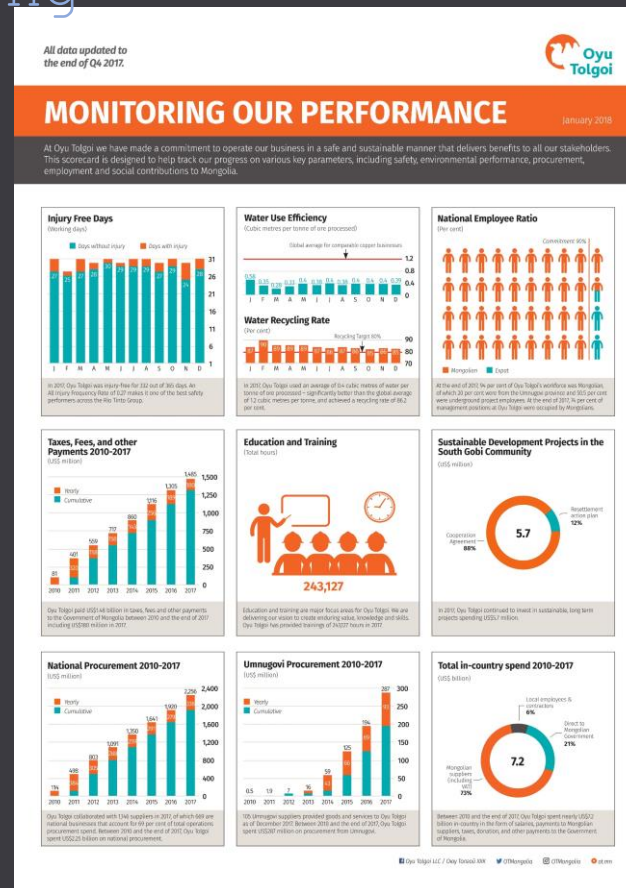
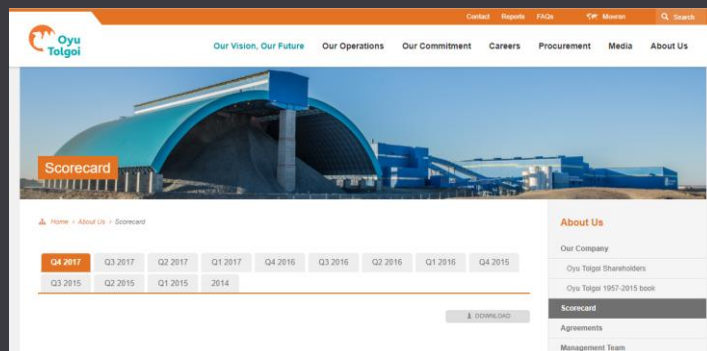
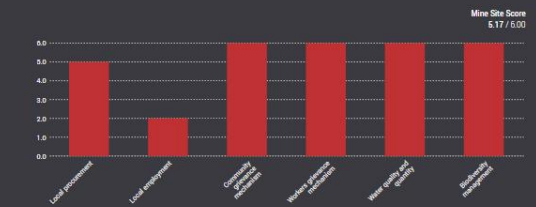
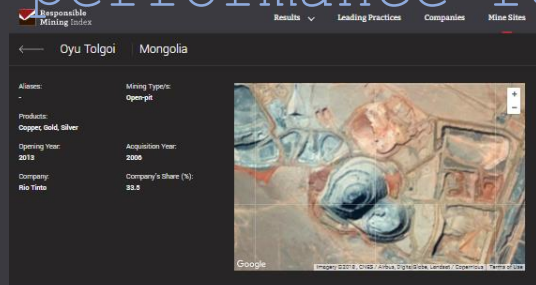
Example:  
One company reporting on Payments to Governments (PtG)

 No project-level data available on PtG  
 Project-level data available on PtG

**ONLY IN EITI COUNTRIES**

# External requirements improve disclosure

The Rio Tinto Oyu Tolgoi mine demonstrated relatively high levels of mine-site level public performance reporting



Open data sharing – still  
evolving

# Open data principles: in practice

- Site-level data – not just aggregated
- Raw data – not just normalised
- Context – targets, limits
- Time series – don't delete old data
- Timely data – up-to-date
- Accessible formats for different stakeholders

# ESG disclosure: leading practices

# Site-disaggregated, machine-readable

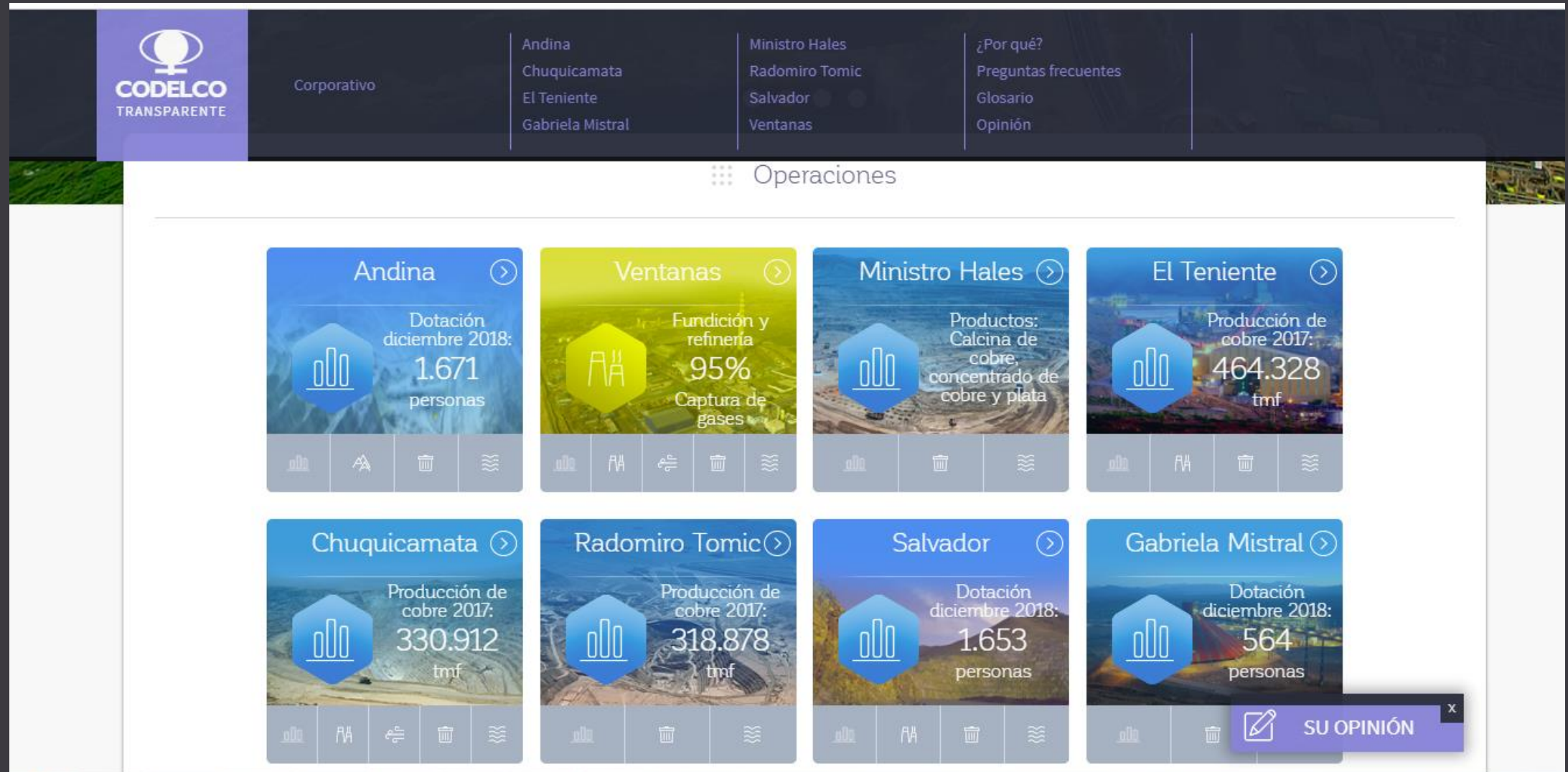
	GHG Emissions (Metric Tonnes CO2e)	2014			2015			2016			2017		
	Sites included in 2016 Baseline <sup>6</sup>	Scope 1	Scope 2	Total	Scope 1	Scope 2	Total	Scope 1	Scope 2	Total	Scope 1	Scope 2	Total
Barrick Total		2'955'000	372'500	3'327'500	2'945'000	427'600	3'372'600	2'896'000	565'000	3'461'000	2'753'000	569'000	3'322'000
Argentina		230'000	-	230'000	235'000	-	235'000	221'000	-	221'000	246'000	-	246'000
Veladero		230'000	-	230'000	235'000	-	235'000	221'000	-	221'000	246'000	-	246'000
Canada		38'000	21'000	59'000	33'000	16'000	49'000	33'000	10'000	43'000	33'000	9'000	42'000
Hemlo		38'000	21'000	59'000	33'000	16'000	49'000	33'000	10'000	43'000	33'000	9'000	42'000
Chile		15'000	-	15'000	13'000	-	13'000	1'000	-	1'000	0	-	0
Power facilities		15'000	-	15'000	13'000	-	13'000	1'000	-	1'000	0	-	0
Dominican Republic		1'363'000	-	1'363'000	1'476'000	-	1'476'000	1'442'000	-	1'442'000	1'246'000	-	1'246'000
Pueblo Viejo		441'000	-	441'000	461'000	-	461'000	520'000	-	520'000	549'000	-	549'000
Power Facilities		921'000	-	921'000	1'015'000	-	1'015'000	923'000	-	923'000	697'000	-	697'000
Peru		105'000	32'000	137'000	112'000	40'000	152'000	125'000	45'000	170'000	120'000	44'000	164'000
Lagunas Norte		83'000	26'000	109'000	87'000	29'000	116'000	86'000	29'000	115'000	82'000	29'000	111'000
Pierina		22'000	6'000	28'000	26'000	11'000	37'000	39'000	16'000	55'000	38'000	15'000	53'000
USA		1'048'000	319'000	1'367'000	943'000	371'000	1'314'000	932'000	505'000	1'437'000	949'000	509'000	1'458'000
Cortez		225'000	63'000	288'000	211'000	62'000	273'000	211'000	85'000	296'000	216'000	96'000	312'000
Goldstrike		670'000	220'000	890'000	548'000	272'000	820'000	559'000	380'000	939'000	563'000	372'000	935'000
Turquoise Ridge		8'000	12'000	20'000	9'000	14'000	23'000	10'000	24'000	34'000	10'000	24'000	34'000
Golden Sunlight		18'000	23'000	41'000	17'000	22'000	39'000	5'000	16'000	21'000	6'000	17'000	23'000
Western 102 Power Plant		127'000	-	127'000	158'000	-	158'000	147'000	-	147'000	154'000	-	154'000

◀ ▶ ... Mine Waste | Mercury Air Emissions | NOx Emissions | SOx Emissions | Cyanide Use | Mercury Produced | Ore Processed | ... (+) : 90%

Ready



# Site-disaggregated, easily accessible



# Site-disaggregated, easily accessible





# Site-disaggregated, easily accessible



# Grievance-related data

[» Acceso proveedores](#)
[» Acceso trabajadores](#)
[» Canales de denuncia](#)
[» Transparencia activa](#)

[NOSOTROS](#)
[OPERACIONES](#)
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[TRABAJA EN CODELCO](#)
[TRANSPARENCIA](#)
[PRENSA](#)

COMPARTIR

[in](#)
[f](#)
[t](#)

URL  
<http://j.mp/223qvSi>

-A +A

Tipo de denuncia	CM	DAND	DCH	DGM	DMH	DRT	DSAL	DET	DVEN	VP	FIL	1Q18
Infracción a Políticas y Normas de Codelco	2	2	3	3	1	1	1	7	-	5	2	27
Corrupción o Abuso derivado de Conflicto de Interés	2	6	3	-	5	1	2	-	1	3	-	23
Robo, hurto o apropiación indebida	-	-	-	1	-	-	-	1	1	-	-	3
Violencia	-	-	1	-	-	-	2	-	-	1	-	4
Discriminación / Acoso Sexual	2	1	1	-	-	1	-	1	1	3	-	10
Condiciones Inseguras de Trabajo	1	2	-	2	-	-	2	2	-	4	1	14
Abuso de sustancias	-	-	-	-	1	-	-	-	-	-	-	1
Acusaciones sin detalle / Conflicto entre Terceros / Otros	-	4	11	1	1	1	2	6	1	4	-	31
<b>Total</b>	<b>7</b>	<b>15</b>	<b>19</b>	<b>7</b>	<b>8</b>	<b>4</b>	<b>9</b>	<b>17</b>	<b>4</b>	<b>20</b>	<b>3</b>	<b>113</b>

[Gestión de Personas](#)

[Cifras](#)

[Sustentabilidad](#)

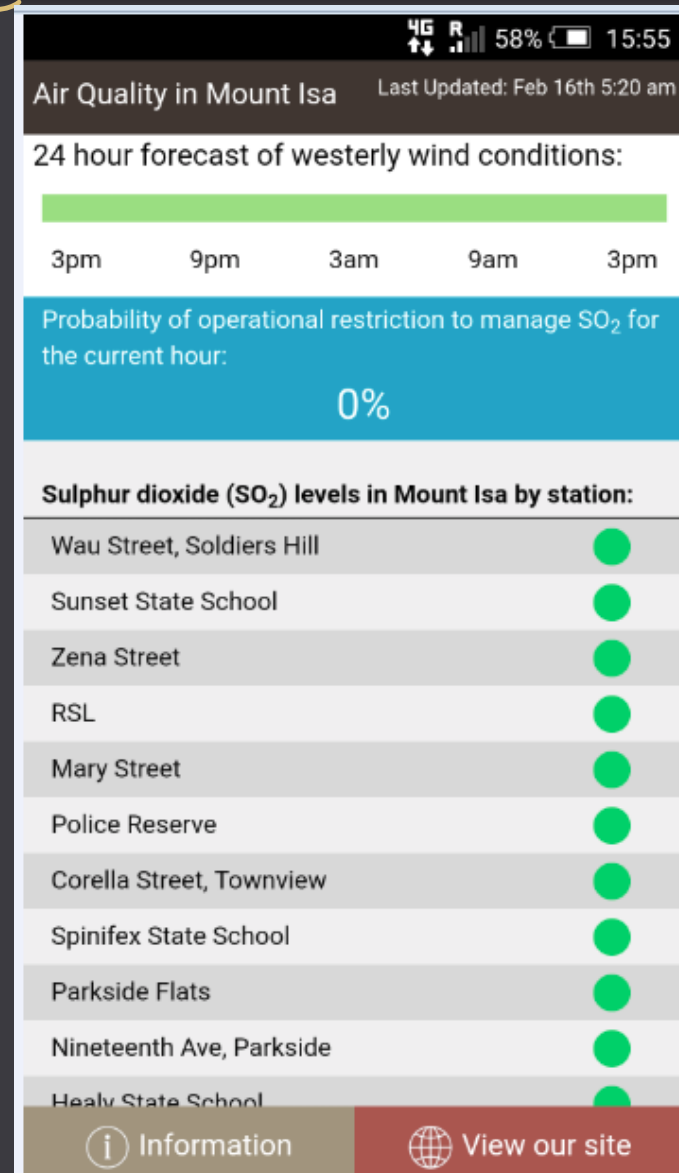
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# Real-time data, easily accessible



# Long time series

## Accident Statistics of CIL since 1975

Year	Fatal Accidents		Serious Accidents		Fatality Rate		Serious Injuries Rate	
	Accident	Fatalities	Accident	Injuries	Per Million Tonne	Per 3 Lakh Man-shifts	Per Million Tonne	Per 3 Lakh Man-shifts
1975	177	233	1456	1515	2.62	0.52	17.03	3.41
1976	177	249	1194	1248	2.72	0.56	13.63	2.81
1977	177	197	1198	1255	2.23	0.45	14.19	2.88
1978	139	154	1180	1227	1.73	0.35	13.78	2.77
1979	114	147	1090	1143	1.61	0.33	12.55	2.57
1980	112	129	1132	1202	1.35	0.28	12.54	2.65
1981	127	145	1214	1276	1.35	0.32	11.90	2.81
1982	123	148	1161	1218	1.32	0.31	10.86	2.56
1983	127	160	980	1026	1.36	0.33	8.70	2.09
1984	123	134	603	605	1.05	0.27	4.73	1.20
1985	136	152	507	524	1.15	0.31	3.97	1.07
1986	133	154	508	525	1.08	0.31	3.68	1.06

# Disclosure for local stakeholders



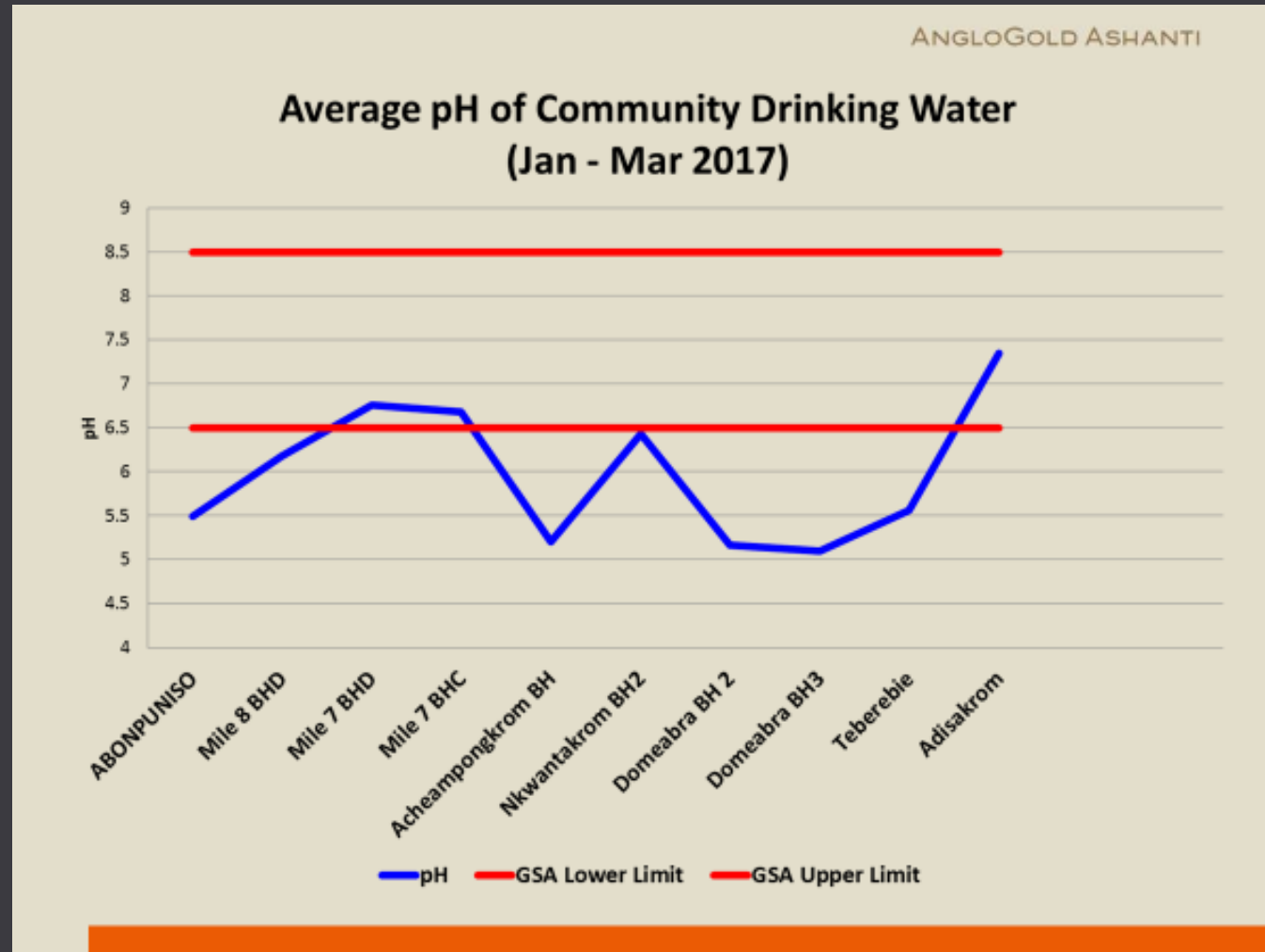
IDUAPRIEM MINE

## COMMUNITY DISCLOSURE REPORT

JANUARY - MARCH 2017

Current Approvers	Name	Position	Date
Prepared By:	Philip Nyoagbe	Senior Environmental Officer – Water Management	May 3, 2017
Reviewed By:	Ruth Owusu-Akyaw	Superintendent – Environmental Compliance	May 3, 2017
Approved By:	William Addo	Manager – Environment	May 5, 2017

# Disclosure for local stakeholders



# Integrated approach to transparency

## Community Engagement

Roxgold

Proactive outreach combined with an open-door approach

- YARAMOKO Mine Committee
- Meetings with impacted villages
- Participation in the departmental, provincial and regional consultation framework committees
- National, regional, provincial or local workshops and conferences (association, partner, etc.)
- Courtesy visits of the Roxgold management to the communities (village leaders, religious leaders, important resource personnel, heads of public management, etc.)
- Meetings with the local public administration (Prefect, Mayor)
- Meetings with the regional and provincial administration
- Mine site visits
- Community Mine Management tour
- Thematic focus group (youth, women)
- Roxgold community relation office
- Billboards, phone, mail and emails
- Press articles, radio and television



TSX: ROXG

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[www.responsibleminingindex.org](http://www.responsibleminingindex.org)

[www.mine-site-study-  
2019.responsibleminingfoundatio  
n.org](http://www.mine-site-study-2019.responsibleminingfoundation.org)