



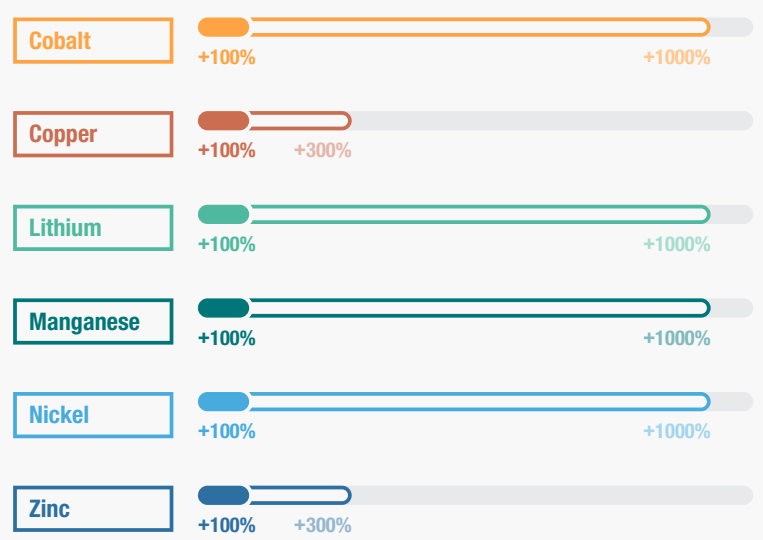
Transition Minerals Tracker

Human rights policies & practices of companies mining key minerals for the low-carbon transition

Background

According to the World Bank, six minerals expected to experience a significant rise in demand as the world transitions to a low-carbon economy include **copper, cobalt, lithium, manganese, nickel, and zinc**.

GROWTH IN MINERAL DEMAND ○ 2°C and ● 4°C Climate Scenario



SOURCE: World Bank, *The Growing Role of Minerals and Metals for a Low Carbon Future*, Jun 2017 (climate scenarios refer to limiting global temperature increase to 2°C or 4°C respectively)

 **Business & Human Rights Resource Centre** collected data on the human rights policies and practices of the top five companies mining these key minerals. See our top-line findings below. For more information including further data and case studies, see our Transition Mineral Tracker.

MAIN CONCERNS RAISED IN ALLEGATIONS REGARDING COPPER, COBALT, LITHIUM, MANGANESE, NICKEL, AND ZINC MINING



NOTE: One allegation may be linked to multiple issues

Cobalt

USE IN LOW-CARBON TECHNOLOGY

Cobalt is used in energy storage technologies, such as batteries required for electric vehicles.



4/5 have allegations related to their cobalt mining



4/5 have a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF COBALT OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO COBALT (NUMBER)
China Molybdenum	China	DRC	●	○	○	8
Gécamines	DRC	DRC	○	○	○	8
Glencore	Switzerland	DRC, Australia, Canada	●	●	●	11
Norilsk Nickel (Nornickel)	Russia	South Africa, Russia	●	○	○	4
Vale	Brazil	Canada, New Caledonia	●	●	●	0

*ICMM: International Council on Mining & Metals **VP: Voluntary Principles on Security & Human Rights

NOTE: Some companies that don't have allegations specifically related to their cobalt mining operations, have other human rights allegations recorded on the Resource Centre's database. The high number of allegations and companies with human rights policies raises concerns about a disconnect between policies and practice on the ground.

Copper

USE IN LOW-CARBON TECHNOLOGY

Copper is used in wind, solar panels and in electric vehicles.



5/5 have allegations regarding their copper operations



4/5 have a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF COPPER OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO COPPER (NUMBER)
BHP Billiton	Australia	Australia, Chile, Peru	●	●	●	8
Codelco	Chile	Chile, Ecuador	○	●	○	8
Freeport-McMoRan	USA	Chile, Indonesia, Peru, USA	●	●	●	6
Glencore	Switzerland	Australia, Chile, DRC, Peru, Zambia	●	●	●	32
Grupo Mexico	Mexico	Mexico, Peru	●	○	○	5

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NOTE: Copper mining had the most allegations recorded of all minerals. The high occurrence of allegations raises concerns about a disconnect between policies and practice on the ground.

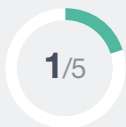
Lithium

USE IN LOW-CARBON TECHNOLOGY

Lithium is used in energy storage technologies, including electric vehicle batteries.



5/5 have allegations regarding their lithium operations



1/5 only one company has a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF LITHIUM OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO LITHIUM (NUMBER)
Albemarle	USA	Australia, Chile, USA	○	○	○	2
Jiangxi Ganfeng Lithium	China	Argentina, Ireland	○	○	○	1
Livent Corporation	USA	Argentina	●	○	○	1
Sociedad Química y Minera de Chile (SQM)	Chile	Chile	○	○	○	2
Tianqi Lithium Corporation	China	Australia, Chile, China	○	○	○	3

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NOTE: All of the top 5 companies operate in the lithium triangle between Chile, Argentina and Bolivia. All human rights allegations were related to this region.

Manganese

USE IN LOW-CARBON TECHNOLOGY

Manganese is used in wind turbines and energy storage technologies.



have allegations related to their manganese operations



have a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF MANGANESE OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO MANGANESE (NUMBER)
Assmang	South Africa	South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1
Consolidated Minerals	UK	Australia, Ghana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	0
ERAMET	France	Gabon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	3
South32	Australia	Australia, South Africa	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	0
Vale	Brazil	Brazil	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	2

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Nickel

USE IN LOW-CARBON TECHNOLOGY

Nickel is used in wind turbines, solar panels and in electric vehicles.



have allegations related to their nickel mining operation



have a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF NICKEL OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO NICKEL (NUMBER)
Anglo American	UK	Brazil	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	0
BHP Billiton	Australia	Australia	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	0
Glencore	Switzerland	Australia, Canada, New Caledonia	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	1
Norilsk Nickel (Nornickel)	Russia	Russia, South Africa	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	4
Vale	Brazil	Brazil, Canada, Indonesia, New Caledonia	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	9

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NOTE: Some companies that don't have allegations specifically related to their nickel mining operations, have other human rights allegations recorded on the Resource Centre's database

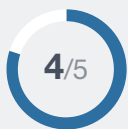
Zinc

USE IN LOW-CARBON TECHNOLOGY

Zinc is used in wind turbines and solar panels.



have allegations related to their zinc mining



have a human rights policy in place

TOP 5 COMPANIES

● Policy or commitment in place

COMPANY	HQ LOCATION	COUNTRIES OF ZINC OPERATIONS	HUMAN RIGHTS POLICY	ICMM* MEMBER	VP** MEMBER	ALLEGATIONS RELATED TO ZINC (NUMBER)
China Minmetals Corporation	China	Australia, China	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1
Glencore	Switzerland	Argentina, Australia, Canada, Bolivia, Kazakhstan, Peru	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	15
Sumitomo Corporation	Japan	Bolivia	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	1
Teck Resources	Canada	Peru, USA	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	7
Vedanta Resources	UK	India, Namibia, South Africa	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	3

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NOTE: The high occurrence of allegations raises concerns about a disconnect between policies and practice on the ground.