

New Climate Assessment of Major Mining Companies Reveals Significant Gap in Alignment to Paris Climate Goals

\$19 trillion Transition Pathway Initiative expands coverage to mining sector

(04 May London) New research from the Transition Pathway Initiative (TPI) reveals that just two of the ten largest mining companies are aligned with limiting climate change to 2°C. These 10 companies have a market capitalisation of over \$350bn and contribute to annual carbon emissions of over 1.5 billion tonnes either directly or indirectly via their products.

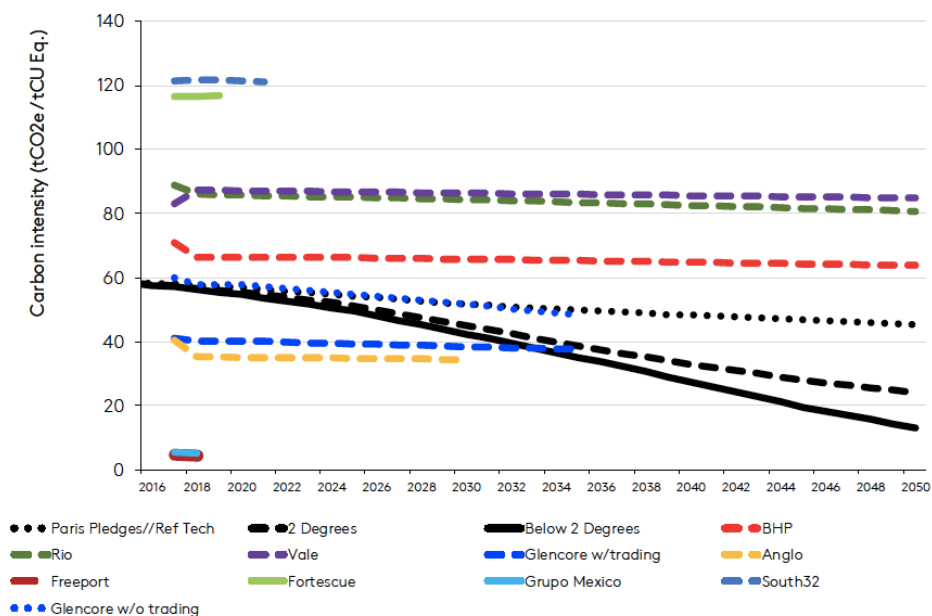
Freeport and Grupo Mexico have such a low emissions intensity that they are already aligned with the 2050 benchmarks, including Below 2C. But their strong climate performance is in stark contrast to others in the sector.

TPI's research shows that Glencore and Anglo American are currently within the 2°C benchmark, but their emissions pathways are too flat to keep them in alignment by 2050. Glencore's plans to cut Scope 3 emissions by c. 30% by 2035 are promising, but do not include its marketing activities.

Stated net zero ambitions from BHP, Rio Tinto and Vale only cover operational emissions, typically just 6% of the emissions TPI assess. As a result, these companies are actually further away from alignment in 2050 than they are today.

Fortescue and South32 have yet to set credible long-term targets and need to cut their overall carbon intensity by nearly 80% by 2050 to claim alignment with 2C, while MMC Norilsk provided insufficient disclosure for assessment to be possible.

Figure ES1. The Carbon Performance of the ten largest diversified mining companies*



Adam Matthews, Co-Chair of the Transition Pathway Initiative and Director of Ethics and Engagement for the Church of England Pensions Board, said:

“The sector has made significant progress over the last six months. Several companies, including Rio Tinto, Vale and Glencore, have announced new, more ambitious emissions targets and BHP have acknowledged the role of scope 3 emissions in their future approach. Anglo American are currently below the benchmark but without further action are due to become unaligned with the goals of the Paris Climate Agreement.”

“TPI’s analysis shows that not all commitments cover all activities and companies will need to go significantly further to meet investor expectations from initiatives such as Climate Action 100+”.

“Many assessed companies mine materials that both support the transition and those that do not. It is essential that investors have a complete picture of their carbon performance, which includes public targets for scope 3 emissions.”

The results are published in a discussion paper intended to refine TPI’s methodology in advance of a full assessment of the sector later in 2020 – an expansion that will bring TPI’s carbon performance coverage to 10 sectors and 261 companies.

To assess the diversified mining sector’s Carbon Performance, TPI calculates the emissions intensity of each firm and compares these against sector benchmarks which reflect international climate targets. Benchmarks are generated from an absolute emissions budget allocated to the sector using the [Sectoral Decarbonization Approach](#). Applying the methodology reveals to investors which companies are aligned with the Paris Agreement climate goals and those that are not.

To calculate emissions intensity, TPI’s proposed methodology adds disclosed Scope 1 and 2 emissions with estimates of Scope 3 emissions. Many mining products, like coal and iron ore, generate significant downstream emissions. The TPI calculates Scope 3 by applying emission factors product by product. For a denominator, TPI proposes converting all mining production (including energy products) into a single Copper Equivalent (Cu Eq.) metric.

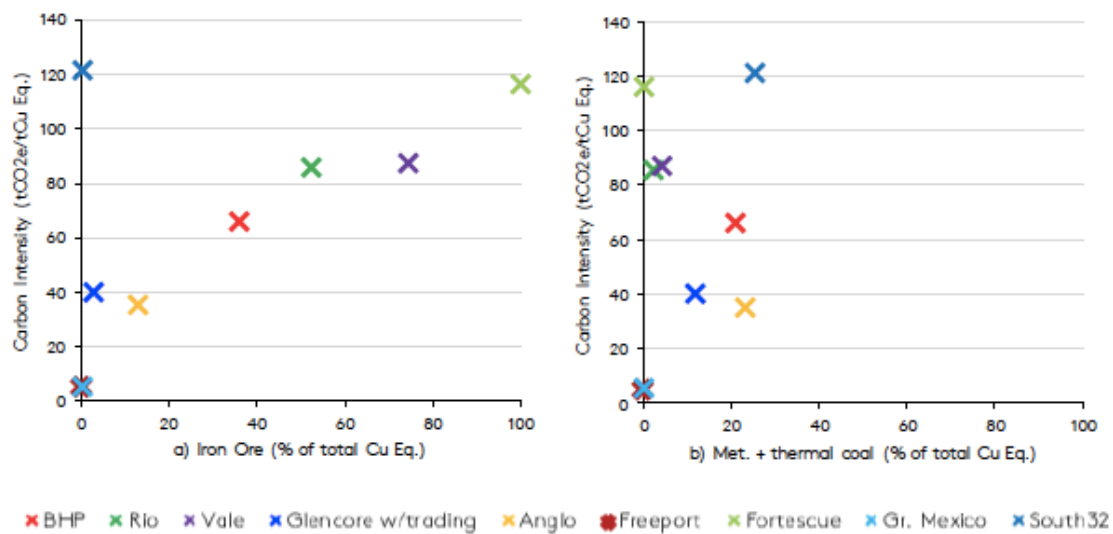
TPI is seeking feedback from investors, companies and civil society on several aspects of its methodology including the choice of emissions factors for different forms of production across the sector and the degree to which trading/marketing activities should be included in companies’ lifecycle emissions, with the aim of improving the methodology further.

Decarbonisation strategies for mining companies

Diversified mining companies extract a wide variety of natural resources from the earth’s crust, from energy products to ores requiring processing (e.g. iron ore into steel, or bauxite into alumina), metals and precious gems. These products vary widely in terms of lifecycle emissions intensities.

Energy products generally have high emissions intensities (from 52 tCO₂/tCu Eq. for crude oil to an average of 132 tCO₂/tCu Eq. for thermal coal). Non-energy products have much lower intensities in general, although iron ore is a notable exception: emissions from steel-making result in a lifecycle emissions intensity of 112 tCO₂/tCu. The below graph illustrates the correlation between carbon intensity and the proportion of iron ore and coal in a company’s product mix.

Figure 10. Variation in 2018 carbon intensity by a) the proportion of iron ore in the mix, b) the proportion of coal (both metallurgical and thermal) in the mix*



* MMC Norilsk did not disclose sufficient information to enable an assessment to be completed

With carbon intensity varying widely between commodities, TPI argue that the most obvious decarbonisation strategy miners can adopt is cutting the production of commodities with the highest emissions intensity.

Coal, particularly thermal coal, presents the biggest opportunity to decarbonise. Coal output at South32 and Anglo American accounts for 25% and 23% of their Cu Eq. output respectively. TPI estimate that stopping this production would cut South32's emissions intensity by 45% and Anglo's by 31%.

Reducing iron ore production presents another potential opportunity to decarbonise. But as there is no direct low-carbon substitute for steel production, reduction in supply from large miners is likely to be offset by increased supply from smaller (potentially less efficient) players.

TPI note that decarbonising the steel sector is likely to need a combination of reducing end demand, greater recycling, improving technology, offsets, and carbon capture and storage. There is scope for miners to play a proactive role, helping to accelerate these initiatives and preferentially supplying efficient (lower-carbon) producers.

Notes to editors

- *Carbon Performance Assessment in the Diversified Mining Sector: Discussion Paper* is available on request
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Methodology:

- The research for this report was carried out for TPI by the Grantham Research Institute on Climate Change and the Environment and the London School of Economics

- Carbon Performance assessment involves quantitative benchmarking of companies' emissions pathways against three benchmark scenarios related to the 2015 UN Paris Agreement. These are:
 1. **Paris Pledges**, consistent with emissions reductions pledged by countries as part of the Paris Agreement (i.e. NDCs).
 2. **2 Degrees**, consistent with the overall aim of the Paris Agreement, albeit at the low end of the range of ambition
 3. **Below 2 Degrees**, consistent with a more ambitious interpretation of the Paris Agreement's overall aim

- TPI is seeking feedback on several aspects of its methodology, including:
 - Trading. TPI propose including trading/marketing activities in its assessments, but aim to exclude "financial trading" where it does not involve the transfer of ownership in the underlying asset.
 - Emissions factors. Selecting appropriate, credible emissions factors for all the different forms of production across the sector is not straightforward and can make a big difference to results. TPI proposes adopting a single lifecycle factor for each commodity that can be adjusted by production stage.
 - Adjusting metallurgical coal emissions. TPI's proposed methodology aims to ensure emissions from metallurgical coal and iron are not double-counted in the benchmark, or in company assessments.

About TPI:

Established in 2017, the Transition Pathway Initiative (TPI) is a global initiative led by asset owners and supported by asset managers. Aimed at investors and free to use, it assesses companies' preparedness for the transition to a low-carbon economy, supporting efforts to address climate change. It is backed by over 60 investors with over \$18 trillion of combined assets under management or assets under advice. The list of TPI members [is available here](#). For more information: www.transitionpathwayinitiative.org