The global network for the materials cycle

FROM THE CHIEF EXECUTIVE

Professor David S Latchman CBE
Vice-Chancellor
Birkbeck University of London
Malet Street, Bloomsbury
London WC1E 7HX

10 October 2022

Dear Prof Latchman,

BIRKBECK FUTURES 'ETHICAL CAREERS' POLICY

I am writing to you in my capacity as the Chief Executive Officer of the Institute of Materials, Minerals & Mining (IOM3), a professional engineering, environmental and scientific institution based in the UK. IOM3 is the global network for the materials cycle, promoting sustainability and greater circularity in the extraction, processing and use of natural resources. Our ca 15 000 individual members work across the world in materials, minerals, and mining and IOM3 seeks to support them in being champions of the transition to a low-carbon, resilient and resource-efficient society.

I have recently seen a press release on the new Birkbeck Futures Careers Service policy to "not hold relationships of any kind with oil, gas or mining companies". The policy goes on to say that this is part of Birkbeck's commitment to "increased sustainability and addressing the climate crisis". I would like to explain why, as written, the first statement is in fact incompatible with the second and, in addition, why your proposed course of action is more likely to be harmful than helpful to your stated aim.

The part of the policy that is at issue in this context is the intention to not have relationships with any mining companies, implying that mining companies are not consistent with increased sustainability and addressing the climate crisis. To illustrate why this is inaccurate, here are some facts:

1. In May 2020, the World Bank produced its report[1] *Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition*. Among other things, this looks at the projected need for certain metals and minerals for technologies that are essential to the transition to a low-carbon society. Examples of what will be needed include lithium, graphite, and cobalt for electric batteries; rare earth elements for the magnets used in wind turbines; copper and aluminium for electrical wiring and

[1] https://www.worldbank.org/en/news/press-release/2020/05/11/mineral-production-to-soar-as-demand-for-clean-energy-increases

transmission; and steel and concrete for wind turbine towers. It estimates that, in order to have enough of these materials to produce enough of those technologies to meet the Paris climate change targets by 2050, global production will need to increase, in some cases by up to five-fold.

2. In May 2021, in its report *The Role of Critical Minerals in Clean Energy Transitions*, the International Energy Agency[2] estimated that the overall demand for minerals for clean energy is on track to double by 2040 in any case, and to quadruple if the world is to meet its Paris targets.
3. In July 2022, the UK Government published[3] *Resilience for the Future: The UK's critical minerals strategy*. This set out a three-element approach to managing the risks to the UK around critical minerals. One key aspect of the "Accelerate" element is the need to "Rebuild our skills in mining and minerals". It notes that of all mining and mineral processing engineers registered with the Engineering Council, 80% are over the age of 50 and nearly 40% are over the age of 66. It states that the number of university students studying geology in the UK nearly halved between 2014 and 2019. It goes on to commit to:

   > *Work with UK industry and careers services across the UK to deliver schools outreach on the importance of critical minerals and modernise perceptions of mining.*

4. Whilst recycling of the metals and minerals already in circulation must play an important part in meeting this demand, in the short to medium term there just won't be enough in circulation to do so, even if we were able to capture it all. The common estimate is that 5% of lithium-ion batteries are recycled, but not all the useful material is captured even then with current technologies. As an analogy, although each year the world recycles about 630 million tonnes (more than 95%) of end of life iron and steel, globally we still produce almost 2 billion tonnes because demand is growing[4]. The same will be true for many of the metals and minerals crucial to the transition.

In other words, mining metals and minerals is essential if we are to meet the climate challenge. (It is of course also essential for a number of other aspects of modern society. With no mining, we would have no computers, mobile phones, cars, trains, pottery, white goods, etc. It is also hugely important economically[5,6] and socially[7] across more than sixty countries.)

---

[2] https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions
[3] https://www.gov.uk/government/publications/uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy
[4] https://worldsteel.org/
[5] https://www.worldbank.org/en/topic/extractiveindustries/overview
[6] https://www.imf.org/external/np/pp/eng/2012/082412.pdf
[7] The World Bank and Pact estimate that over 44 million people work in artisanal and small mining alone https://delvedatabase.org/uploads/resources/Delve-2020-State-of-the-Sector-Report-0504.pdf

Historically, mining has gained a poor reputation for its approach to sustainable development. Continuing in that vein is wrong, especially in the light of the expected expansion of demand for its products. It is vitally important that mining is done in a responsible manner to avoid further damage to biodiversity, air, soil and water. This is recognised under the banner of ESG (Environmental, Social and Governance) by more and more governments, investors[8,9] and mining companies[10] but is still very much a work in progress[11]. To meet the demand for metals and minerals whilst improving how we mine, we need well-trained individuals with a real sense of the value of doing things right. Effectively saying to your student body that they should not consider employment in mining is inconsistent with this, as well as inconsistent with Birkbeck's stated – and absolutely right – desire to increase sustainability and address the climate crisis.

I therefore ask you to reconsider your position accordingly. Perhaps the intent behind the current wording is to exclude companies that primarily mine coal? If that is the case, it could be made clear and thus avoid the contradiction I explain above.

I should be very happy to expand on any of the points in this letter if that would help, including in person.

I am copying this letter via email to Dr Jasmine Gideon (Head of Geography), Eleanor Martin (Head of Careers Service) and Dr Charles Underwood (Head of Earth and Planetary Sciences).

Yours sincerely

[8] https://www.churchofengland.org/media-and-news/press-releases/new-global-investor-initiative-mining-2030-tackle-eight-systemic
[9] https://www.transitionpathwayinitiative.org/overview
[10] https://www.icmm.com/
[11] https://www.responsibleminingfoundation.org/closing-the-gaps/