

PRESS RELEASE

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Peak metal: Scarcity of supply or scare story?

Recent news reports which suggest that the world is running out of certain essential metals are just scaremongering say scientists from the British Geological Survey (BGS). The basis for these stories is the idea that we have reached 'peak metal' - that we have used more than is now available to mine - but they ignore some very basic facts about the science and economics of mineral deposits within the Earth's crust.

Andrew Bloodworth from the BGS said "We are unlikely to run out of metal as long as we continue to invest in the science needed to identify where new mineral deposits can be found, and to use what we already have more efficiently. These unfounded concerns deflect attention from more pressing issues regarding our use of resources from the Earth".

Subscribers to 'peak metal' correlate declining production with serious depletion of metals in the Earth. Experience of the last 200 years suggests otherwise. Metal production is highly cyclical, with intermittent peaks and troughs which are closely linked to economic cycles. Declining production is generally driven by falling demand and prices, not by scarcity.



Zinc ingots produced at Skorpion Mine, southern Namibia BGS©NERC

The total stock of metal in the earth's crust is finite, but it is also extremely large. The stocks of metal for which we know the precise location, tonnage and which we can extract economically with existing technology (usually known as 'reserves') are tiny in comparison to the total amount. Together with production data, 'peak metal' advocates tend to use these reserve figures as a basis for their calculations, despite the fact that both production and reserves are continually changing in response to movements in markets and scientific advances.

In the longer term, advances in science and technology mean that we are getting better at finding and extracting metals - a significant proportion of global uranium reserves are in a single deposit in Australia which was unknown 30 years ago. For these reasons the use of reserve and production data to predict 'peak metal' is highly dubious as these figures are closely related to the state of the global economy and scientific and technological advancement.



Mr Bloodworth said "As the global population grows and more people aspire to improved standards of living, continued scientific research will help ensure that future demand for metal is met by a combination of new resources in the Earth, better recycling of metals in our society and from more efficient end-use. That is essentially doing more with less. For example, in 1985, a kilo of aluminium made 46 drinks cans. Today the same amount makes 70 cans. This shows how we can become much more efficient in our everyday use of metals. The big catch is that this needs to be done without compromising our environment, so we also need science to break the link between our use of metals and greenhouse gas emissions.'

The British Geological Survey is one of the world's leading centres for information and statistics on metal resources. <http://www.bgs.ac.uk/mineralsuk/>

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Notes for Editors

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Photographs:ftp://ftp.bgs.ac.uk/pubload/cjmi/BGS_175_Science_Symposium/BGS_science_briefing_photos/Peak_metal_photos/

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For additional information go to: www.mineralsuk.com

The British Geological Survey

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.