



Warning: The Mining Boom is Fading Fast

Posted by [Phil Hart](#) on November 2, 2007 - 8:00pm in [The Oil Drum: Australia/New Zealand](#)

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Original Story from Monash University Faculty of Engineering:
<http://www.monash.edu.au/news/newline/story/1231>

A Monash University environmental engineer has warned in a new report that mineral resources are running out, excavation costs are escalating and the environmental costs of mining are devastating.

The world-first report, *The Sustainability of Mining in Australia: Key Trends and Their Environmental Implications for the Future*, was authored by Monash researcher and lecturer Dr Gavin Mudd in conjunction with the independent Mineral Policy Institute.



Dr Mudd said the statistics were alarming. "On average, 27 tonnes of greenhouse emissions are created to mine a tonne of uranium. That's equivalent to the annual emissions of nine family cars. To mine one kilogram of gold it takes 691,000 litres of water, and it takes 141 kilograms of cyanide to produce a single kilogram of gold.

"There is often talk about sustainable mining, but our latest body of research shows that minerals are being mined at an alarming rate, mining companies have to work harder to source it, and as a result the environmental costs of the process and clean-up are rising exponentially.

"If we were to project these key trends just 40 years into the future, we would find that to source the same amount of minerals would require a new Pilbara to be found or a new Mt Isa or Broken Hill -- and that's unlikely.

"It takes a minimum of two million tonnes of solid waste to produce a single kilogram of gold. Copper produces around 250 tonnes of solid waste per tonne of copper while uranium produces about 2,400 tonnes of low-level radioactive waste per tonne of uranium oxide."

The landmark report reveals critical trends in the mining industry:

- A decline in mineral and ore grades
- A dramatic increase in waste rock and tailings -- now at several billions of tonnes annually, much of it posing a long-term risk to the environment
- Incomplete sustainability reporting -- many companies refuse to accurately report relevant data, including waste rock, tailings, energy, cyanide or water consumption

Dr Mudd said the results of his research clearly show that regulators, shareholders, governments

The Oil Drum: Australia/New Zealand | Warning: The Mining Boom is Fading Fast <http://anz.theoil Drum.com/node/3177> and communities face a challenge, the full extent of which is not being discussed. "There's no game plan in place for a long-term strategic assessment by national and international authorities to examine the real sustainability of material resources. More than 50 per cent of land disturbed by mining has not yet been properly rehabilitated."

Dr Mudd's research and the report will be presented at the Minerals Council of Australia Sustainable Development Conference in Cairns this week, 30 October -- 2 November.

Dr Mudd's full report is available from the [Engineering faculty website](#).



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