No Dirty Gold fact sheet
February, 2010

Quick facts about gold mining:

- A single gold ring leaves in its wake, on average, 20 tons of mine waste.[1]
- Cyanide and other deadly toxic chemicals are used to separate gold from waste rock. The average large gold mine uses over 1,900 tons of cyanide per year.[2] A rice grain-sized dose of cyanide can be fatal to humans and even smaller amounts can be fatal to fish.[3]
- Metal mining was the number one toxic polluter in the United States in 2008, responsible for more than 25 percent of all reported toxic releases.[4]
- In 2008, metal mining released approximately 80 percent of arsenic releases, 89 percent of mercury releases, and 86 percent of lead releases in the U.S.[5]
- Open-pit gold mines obliterate the landscape, opening up vast craters and flattening mountaintops. Open-pits gold mines are enormous. The world's largest open pit, the Bingham Canyon mine in Utah, is visible to astronauts from outer space.[6]
- Gold mining can be dangerous for workers. Mining represents a tiny fraction of the global workforce, but is responsible for approximately 3 percent of work deaths globally, or about 30 deaths a day.[7]
- Gold mining uses a lot of water. The average gold mine uses enough water to provide the basic water needs for a population equivalent to that of a large U.S. city for a year. [8]
- Gold mining uses lots of electricity produced by burning coal and other fossil fuels, which causes air pollution, including smog, and emits greenhouse gases. The average gold mine uses the same amount of electricity generated in the entire state of Rhode Island.[9] The expanded Olympic Dam copper-uranium-gold mine in Australia will need half of South Australia's current electricity supply to operate.[10]
- Gold mining destroys wildlife habitat and important ecosystems and biodiversity. Over a quarter of active mines and exploration sites globally are in or near parks, refuges, and other protected natural areas.[11]

Visit www.nodirtygold.org for more information

REFERENCES

[1] No Dirty Gold calculation using publicly available data that is reported by mining companies to their shareholders, data published by <www.infomine.com>, US Geological Survey, and US Environmental Protection Agency. 2003. Methodology at: http://www.nodirtygold.org/pubs/20TonsMemo_FINAL.pdf

[2] Data from Gavin Mudd used in Mudd, G. 2007. Global trends in gold mining: Towards quantifying environmental and resource sustainability? *Resources Policy* 32:42-56.

[3] Da Rosa, C.D, Lyon, J.S., and Hocker, P. 1997. Golden Streams, Poisoned Streams: How Reckless Mining Pollutes America's Waters, and How We Can Stop It. Mineral Policy Center, Washington D.C.

Moran, Robert. *Cyanide in Mining* (Golden, Colorado: MPC).

US EPA. 2009. Aquatic Life Criteria. http://www.epa.gov/waterscience/criteria/wqctable/index.html

Eisler, Ronald. 1991. Cyanide Hazards to Fish, Wildlife, and Invertebrates: a Synoptic Review. US Fish and Wildlife Service Biological Report 85(1.23) Contaminant Hazard Reviews 23.

[4] U.S. Environmental Protection Agency. 2009. Toxics Release Inventory, Reporting Year 2008 National Analysis. Summary of Key Findings. US EPA Office of Information Analysis and Access. December 2009. http://www.epa.gov/tri/tridata/tri08/national_analysis/index.htm

[5] U.S. Environmental Protection Agency. 2009. Toxics Release Inventory, Reporting Year 2008 National Analysis. Summary of Key Findings. US EPA Office of Information Analysis and Access. December 2009. http://www.epa.gov/tri/tridata/tri08/national_analysis/index.htm

U.S. Environmental Protection Agency. 2009. Toxic Release Inventory. http://www.epa.gov/triexplorer/

[6] Kennecott Utah Copper Web site, About Kennecott Utah Copper, <http://www.kennecott.com/about_facts.html>

[7] International Labour Organization – Sectoral Activities: Mining. http://www.ilo.org/public/english/dialogue/sector/sectors/mining/safety.htm

[8] Data from Gavin Mudd used in Mudd, G. 2007. Global trends in gold mining: Towards quantifying environmental and resource sustainability? *Resources Policy* 32:42-56. Assuming a daily need of 50 L for drinking, sanitation, bathing, and food preparation in accordance with World Commission on Dams. 2000. *Dams and Development: A New Framework for Decision-Making.* Earthscan Publications, London. City example of Tampa, Florida; see US Census 2007 estimates at http://www.census.gov/popest/cities/tables/SUB-EST2007-01.csv

[9] Gold mine energy data from Gavin Mudd used in Mudd, G. 2007. Global trends in gold mining: Towards quantifying environmental and resource sustainability? *Resources Policy* 32:42-56.

State energy data from US Energy Information Administration. 2009. Independent Statistics and Analysis State Energy Data System, "State Ranking 5. Electricity Total Net Generation, October 2009" US Department of Energy. http://tonto.eia.doe.gov/state/state_energy_rankings.cfm?keyid=33&orderid=1

[10] Roberts, Jeremy. "BHP's Olympic Dam mine will need half SA's electricity." *The Australian* 27 March, 2008.

[11] Miranda, M., Burris, P., Bingcang, J.F., Shearman, P., Briones, J.O., La Viña, A., & Menard, S. 2003. *Mining and Critical Ecosystems: Mapping the Risks.* World Resources Institute, Washington, D.C. 60 pp.