

Mining ranks among the world's most destructive industries. Yet mineral extraction and processing are absent in most discussions of global environmental threats. Governmental and private analyses have focused only on increasing mineral supplies.

Each year, mining strips some 28 billion tons of material from the earth. This is more than what is removed by the natural erosion of all the earth's rivers. Worldwide, mining and smelting generate an estimated 2.7 billion tons of processing waste each year, much of it hazardous dwarfing the more familiar municipal waste. Smelter pollution has created biological wastelands as large as 10,000 hectares and pumped some eight percent of the total worldwide emissions of sulphur dioxide, a major contributor to acid rain, into the atmosphere.

Mining could also cause more damaging deforestation than bad farming practices in certain parts of the world. For example, smelters at a single iron mine in Brazil will require enough fuelwood to deforest 50,000 hectares of tropical forest each year.

Mining has been poorly regulated even in wealthy industrialized nations. While many governments subsidize mineral production, few enact or enforce strict environmental regulations for mining operations. As a result, not only are many mining activities more environmentally destructive than need be, but prices of minerals do not include their full environmental cost. Today's low mineral prices reflect only the immediate economics of extraction and destruction. They fail to consider the full costs of eroded land, dammed or polluted rivers and displacement of people unlucky enough to live atop mineral deposits. In light of this, governments should remove subsidies provided for mining virgin minerals.

The devastating effects of the industry are particularly severe in the developing countries which have been producing a substantial portion of the world's mineral supplies, although they use relatively little. This is because environmental controls tend to be weak or non-existent in these countries. What makes their situation more pathetic is that many of them are among the world's poorest nations.

Contrary to popular belief, the people of most mineral-exporting countries gain little from mining. Expensive investment in equipment and infrastructure combined with falling world mineral prices, especially during the eighties, has made these countries some of the world's most heavily indebted.

While the world appears in little danger of running out of most non-fuel minerals, it is obvious that the planet cannot afford the human and ecological price of its growing appetite for minerals. It will therefore be wise to satisfy human needs with smaller amounts of virgin minerals. It will also work for our good if we increase recycling of materials, and make metal-based products more durable and easier to repair.