



REDUCING OUR DEPENDENCE ON MINING

Teacher Information Sheet

One inescapable truth about mining is that all of us are dependent on it, both for the raw materials that go into virtually everything we manufacture, plus the energy required to power our nation. A second truth is that mining inevitably causes environmental disruption – it involves extracting something from the ground, and typically requires power equipment to do so, plus new roads to access the mine site and deliver the mined materials to market and/or processing sites. Though modern mining methods have minimized the environmental effects, and in some cases these are purely temporary, there is no such thing as zero-impact mining.

So how can we reduce our dependence on mining to keep the environmental consequences to a minimum? There are hundreds of ways, including many that we can practice as individuals. All of them, however, fall into three broad categories. These are mentioned briefly below, and each will be considered in more detail later.

Change Our Lifestyle

Note that this reads “*change* our lifestyle,” not necessarily *lower* it. For example, the development of fluorescent light tubes, which are much more efficient than incandescent bulbs, did not signal a decline in our quality of life – it was rather more the opposite. The appearance on the market of ever more energy-efficient cars, furnaces, and air conditioners did the same. However, why not consider some voluntary reductions in our quality of life, if it would reduce our dependence on foreign sources of raw materials and help us preserve the environment? After all, as a nation we rank near the top in most quality-of-life indicators, so we can afford to slim down a little. We are known throughout the world for our huge houses and large cars – but do we really need them? To some, these are questions worth considering. To others they appear ridiculous – why not “live large” if we have the means to do so?

Recycle More

This is the proverbial “no brainer”: for every pound of material that we recycle, that’s a pound less that has to be produced through mining. Moreover, since the valuable minerals that we seek through mining are invariably mixed with other minerals that we don’t want, a pound of material recycled may save many pounds of rock from being mined. Gold ore, for example, generally contains so little gold that the wedding band on your finger may well represent the mining of a ton or more of rock. Viewed this way, recycling makes a lot of sense, especially since the environmental impacts of recycling are generally less than those of mining. Economics, however, commonly stand in the way: no large-scale recycling program will remain viable for long unless someone is making money on it. Nevertheless, as our natural resources dwindle, and as we are forced to mine ever-leaner ore deposits, recycling increasingly becomes an attractive alternative.

Limit Population Growth

Of all the ways we might consider to lower our demand on the Earth's resources, this one probably engenders the strongest emotional responses. Regardless of one's personal feelings on population growth, or the relative desirability of large versus small families, it is an obvious truth that fewer people require lesser amounts of raw materials. Although no one has the right to tell you how many children you should have, every one of us has a responsibility to learn what that entails – to know not only how bringing another child into the world affects you and your family, but how it affects society at large, and how it affects the environment. Those effects, both positive and negative, must then be reconciled with one's religious beliefs and personal preferences to arrive at an *informed* decision on how large a family to have, or whether to have children at all.

These, then, are the three general approaches to reducing our dependence on mining. We here at Sterling Hill have never been able to think of a fourth. Can you? And for you visionaries, mining another planet, were that to become possible, doesn't count – it doesn't reduce our dependence on mining at all, but merely transfers the burden of meeting our demands for raw materials to another place.

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