

Economics and Earth

Human life — and national economies — depend upon natural resources to continue. From the earth we get food, water, energy and materials. God entrusted us to be stewards of these resources (Genesis 2:15), but all too often we have misused them.

“Globalization and the pace of technological development are outstripping our understanding of the impacts we are having on ecosystems — putting many basic services at risk, particularly for the poor,” according to the author of a recent study by the U.N. Environment Programme.

As economic growth increases, so does our consumption of resources and waste generation. This cannot continue indefinitely without consequences. Dr. Daniel Botkin, an environmental researcher, says, “There aren’t enough resources to go around for everybody to live at the level we in America live at. Somebody’s going to have to give up something” (The New York Times, Aug. 20, 2002).

Ecological Footprint

One way to measure the impact of our lives on the earth is to look at the size of our “ecological footprints.” Each U.S. American, for example, on average uses resources that require 12.6 acres of productive land. If we divide up all the productive acres available for supporting human life, and then divide by the world’s population, each person would have 3.7 acres.

Humans currently use nearly 12 billion acres for crop lands and pastures. Another 4 billion acres of forested land is necessary to sustainably provide wood for fuel and to build our homes. Our use of fossil fuels for energy creates excess carbon dioxide, requiring another 7.4 billion acres just to absorb it. This all adds up to more than the amount of land available to us!

We are going into ecological debt — using resources faster than they can be restored. Some people around the world are forced to harvest timber or catch fish faster than they know it can be replaced because they are living in desperate poverty. Those of us in industrialized countries use resources at a ferocious rate out of greed and ignorance.

Biodiversity

As we convert more and more land to agriculture and urban uses, biological diversity is one of the casualties. As population increases, more wood is needed for heating and cooking, as well as building materials. Tropical forests are being cleared at the rate of 17 million hectares annually – an area four times the size of Switzerland. Species that live in these ecosystems are dying off faster than at any time since the dinosaurs.

The loss of biodiversity affects not just the natural world, but also our health and well-being, as potential medicines and food crops disappear. A recent report estimated that the world loses one major drug every two years due to species loss.



WORLD ENERGY SUPPLY

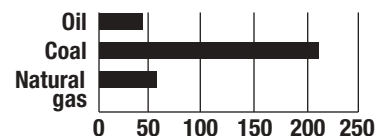
Nearly 80 percent of energy comes from fossil fuels (oil, coal, gas).

Oil	35.0%
Coal	23.5%
Gas	20.7%
Waste and renewable combustibles	11.1%
Nuclear	6.8%
Hydropower	2.3%
Others	0.5%

Source: BBC Online

HOW LONG WILL FOSSIL FUELS LAST?

Estimated years of use at current exploitation levels.



Source: BP

Water and Agriculture

Four out of ten people worldwide face shortages of clean, available water. Populations shifts to cities and intensive forms of agriculture — destined for the global market — are making the problem worse in nearly all parts of the world. Furthermore, over-fishing has led to the collapse of important fisheries, with many more at risk. Conflicts have already broken out over access to water in various parts of the world.

Current, chemical-intensive farming methods, promoted by global trade policies, rob soils of their nutrients, while depleting and contaminating water supplies. Soil degradation reduces crop productivity, affecting most severely people in poor countries. In addition, regional weather changes brought on by climate change are likely to lead to an increase in drought and famine.

Energy and Climate Change

The global economy relies mainly on fossil fuels such as coal, oil and gas for transportation, to heat and cool buildings, manufacture goods and provide electricity for lights and appliances. But there are costs to this growing use of fossil fuels.

There is a limited supply, as fossil fuels take thousands of years to form. Because they are a finite resource, companies search for fossil fuels all across the globe — frequently extracting them in ways that undermine local communities and the environment. Communities in places as diverse as Indonesia, Nigeria, Colombia and Appalachia are all resisting the destruction of their environment caused by the extraction of fossil fuels.

In addition, fossil fuels release carbon dioxide emissions into the air. At the same time this is happening, people are cutting down more and more trees — which take carbon dioxide out of the air. The end result is global climate change. All signs indicate that the planet is warming at an unnatural rate. Scientists predict this will only get worse, with the global average temperature rising between 2.7 and 11 degrees Fahrenheit by 2100. A change this dramatic will mean increased flooding, storms and drought.

Since 1971, global energy use has increased nearly 70 percent. Over the next 50 years — as developing countries become more industrialized, and rich countries seek even greater economic expansion — global energy consumption and manufacturing are expected to triple.

What You Can Do: A Path Forward

What might a path forward look like, on both personal and corporate levels? Personally, we can reduce our use of fossil fuels by driving less, carpooling or biking. We can voluntarily tax our use of gas, deciding together with community members where to contribute the funds. We can use energy efficient appliances and vehicles. We can reduce our overall consumption and choose to live more simply. (To learn more, order the MCC resource *Basic Trek: Venture into a World of Enough*, published by Herald Press.)

[Sources: Intergovernmental Panel on Climate Change, International Food Policy Research Institute, U.N. Environment Programme, U.S. Environmental Protection Agency, World Resources Institute, World Wildlife Fund.]

HEALTHY PUBLIC POLICIES

Policies can promote a healthy economy while acknowledging the finite nature of our world's resources. Working together, we can choose to reclaim our role as stewards of God's good earth. At national and international levels, we can call for policies that:

- support the development of renewable energies.
- set standards for energy efficiency.
- promote "smart growth" communities where stores, schools and workplaces are within walking distance.
- shift funding from the military to programs that promote sustainable communities, like mass transit, enforcement of environmental laws and treaties, quality health care and schools.
- encourage sustainable agriculture practices.
- creatively take into account the full (including social and environmental) cost in the price of the product. Options for doing this include taxing companies for the pollution they create, or requiring them to create products that are recyclable.