

# CHAPTER 7

## A Covenant for the Biosphere

Rational treatment of Earth's life support system is long overdue. Achieving sustainability is discussed, but little change has been made in lifestyles. In a senseless quest for ever more energy, humankind is changing the climate, risking nuclear disaster, and engaging in mountaintop removal. Mindless use of renewable resources damages the Biosphere and has led to a 150% ecological overshoot. Economic growth is always a top priority — nurturing and protecting the Biosphere (the environment) rate barely in the top 20 priorities. Meanwhile, the illusion of societal stability is beginning to fade. The transformation from an unsustainable global society to a sustainable one must begin with a pact to nurture the Biosphere, which must be based on an economy that does not damage humanity's life support system. Now is a good time to begin!

### Ignoring Humankind's Life Support System

The Biosphere is still being seriously degraded (e.g., the change from alkaline to acidic pH in the oceans), with no substantive effort to stop dangerous trends. A covenant, a solemn and binding agreement for all of humankind, is essential if the present Biosphere is expected to endure.

In 1777, Captain James Cook introduced the word **taboo** to his countrymen in England. Cook maintained that the word had “very comprehensive meaning, uniting around things that were forbidden — because they were either polluting or sacred [(or both)]” (Hardin 1996, p. x). “A taboo on words that is held inviolate for a long time becomes a taboo on thinking itself. (How can we think of things for which we hear no names?)” (Hardin 1996, p. xiii). Taboos obstruct the development of a covenant for the Biosphere. “Science, to be successful, must be open. As soon as a barrier to discussion becomes evident, we know that scientific investigation has been stopped in that direction” (Hardin 1996 p. xiii).

The taboo on discussing carrying capacity for humans has blocked achieving sustainable use of the planet (Cairns 2004). Sustainable use of the planet will not be achieved until population size can be kept within Earth's carrying capacity for humans. Inhabitants of Tikopia Island used some effective measures to stabilize their population between 1000 and 1800 AD — infanticide, abortion, and decreeing that only first-born sons could have children (Firth 1936, Kirsch 2000). Even with far more humane methods of birth control that the Tikopians used, discussions of population control are still taboo in many cultures.

Of course, if discussions are taboo, the default position is that Mother Nature (i.e., the universal laws of biology, chemistry, and physics, which have been described by Flenley and Bahn [2003], Diamond [1994], and others) steps in, and the results are not pleasant. Population collapse, resource wars, famine, disease, and even cannibalism are more repugnant to most people than presently available means of population control. However, until humankind transcends existing taboos that block sustainable use of the planet, the default position of Mother Nature will occur. Taboos that are federally sanctioned do not always work as the attempt to prohibit liquor in the United States proved.

### Denial

When the preponderance of evidence points in one direction, one should not despair — denial still exists! In the United States, denial of global warming has worked well by casting doubt on both scientists and their evidence. When the news media intend to publish or air information on global warming, deniers insist that the time allotted be “balanced” with viewpoints from both “sides.” The deniers emphasize that uncertainty exists in scientific evidence as if uncertainty were not the norm in politics, sports, the stock market, and fishing. Denial results in delay on remedial action while the crisis worsens. Bill Watterson states in his *Calvin and Hobbes* comic: “It's not denial. I'm just selective about the reality I accept.” Humankind cannot accept only the scientific evidence it regards as good news and reject evidence regarded as bad news. Scientific evidence should neither be ignored nor suppressed because of emotional reactions by a society unwilling to accept reality.

### Sustainability vs Collapse

The Tikopian culture achieved sustainability for many hundreds of years because it accepted the reality that difficult choices must be faced and acted upon. They lost sustainable use of their island when outsiders insisted that the difficult choices they were making were not compassionate and need not be made. Tikopians

lost the intergenerational equity they had by ceasing to make the difficult choices. The inhabitants of Easter Island chose to live unsustainably and lost huge numbers of lives and finally reverted to cannibalism — showing that living unsustainably and avoiding the difficult choices is not compassionate either! Other examples are available of cultures that lived unsustainably and collapsed (Diamond 1994), such as the fall of the powerful, rich, opulent Assyrian Empire and its capital city of Nineveh: “Desolation meets desolation, a feeling of awe succeeds to wonder, for there is nothing to relieve the mind, to lead to hope, or to tell of what has gone by” (British archaeologist Austen Henry Layard as quoted in Ehrlich and Ehrlich 2004).

Not too many years ago, if a society/culture failed and others did not, the event did not endanger civilization; however, with current globalization, all civilizations might fail as a reaction to the failure of one society/culture. No nation or society can ignore the universal laws of nature. Mother Nature can tolerate massive losses of species and even the Biosphere of that time can change, and, as long as some species survive, a new and different array of species will be produced in evolutionary time. No one can predict what the surviving and new species will resemble, but, if past extinctions are a useful guide, a different Biosphere will appear. Only time will tell if the human species will survive under the new conditions. One factor is very clear — when natural resources are exploited rather than nurtured, Mother Nature does not nurture the reckless species that brought about the destruction.

Were Assyrians as obsessed with economic growth and consumerism as humankind is today? The Assyrian army provided a flow of resources “to keep the party going.” Did the inhabitants fear making fundamental changes in their lifestyles? Did they realize that the changes they were causing in the environment were irreversible and would have major deleterious effects? Were they as adept at denial as the current civilization? Did they believe that technology would prevent catastrophes? What kind of world did they want to leave to their children?

### **Ecological Restoration Gulf Coast Style**

Those individuals who think humankind does not need a covenant to nurture the Biosphere should take a look at how money from British Petroleum was used for the cleanup of oil from the huge leak in the Gulf of Mexico (2010). In Florida, a county “spent \$560,000 on rock concerts to promote its oil-free beaches” (Deslatte et al. 2011). Ocean Springs, Mississippi, reserve police officers equipped themselves with tasers (to help clean up oil?). In nearby Gulfport, the sewer department “bought a \$300,000 vacuum truck that never sucked up a drop of oil. . . . Florida’s tourism agency sent chunks of a \$32 million BP grant as far away as Miami-Dade and Broward counties on the state’s east coast, which never saw oil from the disaster. . . . Some of the money BP doled out to states and municipalities hasn’t been spent yet,” even though \$550 million has been accounted for (Deslatte et al. 2011). “More than \$400 million went toward clear needs like corralling the oil, propping up tourism and covering overtime. Much of the remaining chunk consists of equally justifiable expenses, but the total is also riddled with millions of dollars’ worth of contracts and purchases with no clear connection to the spill” (Deslatte et al. 2011). How the money was spent had incredibly lax oversight, even though some of the money was spent wisely. However, much more could have been done if all the money had been spent wisely.

Societal pressure is building to permit more drilling for oil in the Gulf of Mexico even though its ecological integrity has been seriously damaged and much oil remains in the Gulf’s substrate. This important part of the Biosphere at least should be substantively restored before more oil drilling is permitted. The covenant to protect the Biosphere requires that individuals be dedicated to its integrity in order to be successful.

### **Population Crisis**

With energy and food prices rising, water stress in some areas of the planet, and water scarcity in many others, approximately 1.2 billion people go to bed hungry each night and at least another billion are malnourished. The population crisis is already a reality for many of the world’s people. What about the future?

*When it comes to population growth the United Nations has three primary projections. The median projection, the one most commonly used, has world population reaching 9.2 billion by 2050. The high one reaches 10.5 billion. The low projection, which assumes that the world will quickly move below replacement-level fertility, has population peaking at 8 billion in 2042 and then declining. If the goal is to eradicate poverty, hunger, and illiteracy, then we have little choice but to strive for the lower projection (Brown 2011).*

### **The Comfort Zone**

A **comfort zone** (psychology) is defined as a situation or position in which a person feels secure, comfortable or in control (<http://www.thefreedictionary.com>). A comfort zone for an individual usually includes

familiar work, family, living quarters, social groups, religion, and even food. Humankind lives within globalized trade and financial systems as it encounters global crises (e.g., climate change), all of which are outside the comfort zone for a small group species like *Homo sapiens*.

Some regions adapt to global issues more rapidly than others — for example, “almost nine out of 10 EU citizens believe that climate change is a serious problem, with 63% convinced it is a ‘very serious’ issue and 24% deeming it a ‘fairly serious’ matter” (EurActiv 2009). In contrast, “US citizens tend to have a less drastic view on climate change: 65% still consider it a problem, but a growing number disagree with this idea” (EurActiv 2009).

Three factors may account for the difference in perception of global issues.

(1) Science, both global warming and evolution, are under assault in the United States by well funded opposition campaigns.

(2) Voter turnout in federal elections is often 50% or less in the United States

(<http://www.infoplease.com/ipa/A0781453.html>), which indicates a lower than desirable citizen involvement, even in national affairs.

(3) The European Union nations have good public transportation systems and are less dependent upon fossil fuel than the United States, which has many long distance automobile commuters.

### **A Lack of Candor**

People do not want to be reassured about risks, they just want candor. They have been told that nuclear power plants are “safe.” Then came Fukushima: “With all the euphemistic language on display from officials handling Japan’s nuclear crisis, one commodity has been in short supply: information. . . . The less-than-straight talk is rooted in a conflict-adverse culture that avoids direct references to unpleasantness” (Tabuchi et al. 2011). However, science is the ultimate source of candor since it is based on verified evidence and published in peer-reviewed journals. However, in the United States and elsewhere in the world, science is often ignored or rejected because it is a source of bad news (e.g., climate change). The bad news will continue until humankind reduces emissions of anthropogenic greenhouse gases. If drastic reductions are made in the next decade, the news may be good. However, attempts to reassure people by using the word “safe” instead of providing information on risk lacks the necessary candor. Lack of candor is a poor form of political damage control.

### **Conclusions**

A covenant with the Biosphere must be based on robust scientific evidence about the universal laws of biology, chemistry, and physics. Living as part of the Biosphere and not apart from it is the *sine qua non* of the covenant. Sustainability ethics (avoiding unsustainable living) and wise limits to the use without abuse of natural resources must also be a foundation of the covenant. Eliminating exceeding Earth’s carrying capacity for humans and eliminating ecological overshoot are also essential to nurturing the present Biosphere.

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