

17.2: The First Commandment

HUMAN WELFARE MUST BE MEASURED IN TERMS OF QUALITY OF LIFE, NOT JUST ACQUISITION OF MATERIAL POSSESSIONS, WHICH DEMANDS THAT ECONOMICS, GOVERNMENTAL SYSTEMS, CREEDS, AND PERSONAL LIFE-STYLES MUST CONSIDER ENVIRONMENT AND SUSTAINABILITY.

This commandment goes to the core question of, “What is happiness?” Many people have come to measure their happiness in terms of material possessions—the larger sport utility vehicle, the bigger house on a more spacious lot farther from the city, more and richer food. But such measures of human welfare based upon the accumulation of more stuff has come at a high cost to Earth as a whole and even to the people who acquire the most stuff. The sport utility vehicle guzzles fuel from steadily decreasing petroleum supplies, commodious houses require more energy to heat and cool, large lots remove increasingly scarce farm land from food production, dwellings far from the workplace mean long commutes that consume time and fuel, and too many of the current generation of humans have consumed food to a state of unhealthy obesity.

The things that really count for happiness—good health, good nutrition, physical comfort, satisfying jobs, good interpersonal relations, interesting cultural activities—can be had with much less consumption of materials and energy than is now the case in wealthier societies. In order for sustainability to be achieved, it is essential for societies to recognize that happiness and well-being are possible with much less consumption of materials and energy.

Environmental and Sustainability Economics

Conventional neoclassical (Newtonian) market economics have not adequately considered resource and environmental factors in the overall scheme of economics. Since about 1970, however, environmental and natural resource economics has developed as a viable discipline.⁴ This discipline, commonly called environmental economics addresses the failure of a strictly market economy to deal with scarcity and to address environmental problems. Much more complex than neoclassical economics, environmental economics addresses sustainability issues, resource economics, pollution costs, costs and benefits of pollution control, and the value of natural capital. Economic instruments can be powerful influences in reducing pollution and extending resources. The conventional market economy does act to extend resources. For example, as petroleum prices increase to painfully high levels, the rate at which consumption increases is diminished. Artificial market intervention can act to thwart such a desirable outcome. For example, U.S. government subsidies of biomass-based ethanol and biodiesel fuels contribute to increased stress on agricultural resources requiring increased amounts of fertilizers and fuel to grow the extra grain required to produce grain-based fuels.

Economic measures can be used to reduce pollution and demand on resources. Carbon and energy taxes can be imposed to reduce emissions of greenhouse gas carbon. Pollution trading has evolved as an effective pollution control measure. In the case of greenhouse gas carbon dioxide, for example, a utility installing a new coal-fired power plant may pay another concern to do reforestation projects that take an equivalent amount of carbon dioxide from the atmosphere.

More difficult to quantify, but no less real, are environmental amenities. There are certainly costs associated with impaired air quality in terms of increased respiratory disease and damage to buildings. In principle, such costs are quantifiable. Much more difficult to quantify are the value of a beautiful scenic view or the costs of eyesore billboard clutter.

A major issue with environmental economics is that of expenditures in the public sector versus those in the private sector. Free market capitalism is a powerful force in providing goods and services and in promoting innovation. Dismal past failures of planned economies and subsequent growth of these economies after they were converted to free market systems—China is probably the most striking example—illustrate the power of market forces. However, much of what is needed for sustainable development requires investment in the public sector, especially in infrastructure. The central challenge for economic systems in the future will be to integrate essential development in the public sector with free market forces. Both are essential in order for sustainable economic systems to flourish.

The Role of Governments

Sustainability will require the strong involvement of governments at all levels and extending across international boundaries. At local levels ordinances and regulations that promote sustainability are essential. For example, there are many cases in which local governments have set up recycling programs for paper, plastic, glass, and metals to reduce the need to dispose of solid wastes. In many cases only national governments have the power and authority to undertake massive projects and to promote changes required for sustainability. Since sustainability is a global concern, ways must be found to enable governmental action and cooperation among nations.

An essential part of the role of government in sustainability is the quality of government and the people involved in it as well as the public perception of government. “Government bashing” is fashionable in many circles, and in some cases is even richly deserved. However, in order for sustainability to succeed, the finest minds that societies have must be willing to enter government service and their contributions must be respected by the public.

Personal Life Styles and Value Systems

The achievement of sustainability will require an unprecedented commitment from individuals. This may well be the most difficult of all objectives to achieve. Many people seem to have an insatiable appetite for possessions and activities that consume large amounts of materials and energy. Nothing illustrates this better than the private automobile; most teenagers find the wait to get their driver’s licenses excruciatingly long and senior citizens dread the day when they are no longer able to drive.

Although people in developed countries are commonly accused of being too materialistic, populations in less developed countries have the same desires for material possessions. Some of the greatest environmental and resource impacts occur when the economies of less developed nations improve to the point that large numbers of their citizens can afford more of the things and services that prosperity, conventionally defined, offers. For example, as of 2010, the fastestgrowing market for automobiles was in China as its economy grew.

The achievement of sustainability will require that individuals adopt sustainability as part of their belief systems. Indeed, it would be very helpful if environmental protection and the preservation of Mother Earth and her limited resources were to become virtually a religion or to be incorporated into existing religions. In this respect, some of the more primitive of Earth’s tribes had belief systems that were much more consistent with sustainability than the predominant religions of today. In some pre-Columbian Native American cultures, Earth and nature were worshipped, a belief system that could well serve as an example to current denizens of the globe. There is some evidence that modern religions are beginning to consider sustainability as a moral issue. One example is the movement, “What would Jesus drive?,” that preaches that pollution from vehicles significantly impacts human health, peace and security are threatened by reliance on imported oil from politically unstable regions, and, therefore, Jesus would not likely drive a fuel guzzling sport utility vehicle!

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