

1.5: Sustainability as a Group Effort- It Takes a (Very Big) Village

The achievement of sustainability and preservation of natural capital requires intense efforts by both individuals and groups. This was illustrated centuries ago in England by “the tragedy of the commons”⁵. The commons consisted of a pasture shared by village residences to provide forage for their cows, sheep, and horses. An individual family could increase its wealth (in meat, milk, or horsepower) by adding an animal. For example, a one-cow family could double its wealth in cows by buying another and putting it to graze in the pasture. If the pasture was accommodating 100 cows, for example, this would have an apparent cost of only about 1% for the small community as a whole. The natural tendency was for families to keep on adding cows until a point was reached at which the pasture became exhausted and unproductive due to overgrazing, the animals died or had to be slaughtered, and the entire support system to provide milk and meat based upon the natural capital of the pasture in the commons collapsed. During the fourteenth century this unfortunate circumstance became so widespread that the economies of many villages collapsed with whole populations no longer able to provide for their basic food needs.

History has many examples of the tragedy of the commons. As an example, when the settlers began to cultivate what was formerly open rangeland in Edwards County, Texas, in the 1880s the ranchers who had used it for pasture met and proclaimed the following: “Resolved that none of us know, or care to know, anything about grasses, native or otherwise, outside of the fact that for the present, there are lots of them, the best on record, and we are getting the most of them while they last.”⁶ Soon the combined effects of overgrazing and drought reduced the yield of grass such that the ranchers’ livelihoods were threatened and the newly cultivated land became unproductive. Shortsighted attitudes towards Earth’s natural capital similar to those expressed by the ranchers continue to lead to many tragedies of the commons. In modern times heavy cultivation of marginal land is turning large areas to desert (desertification), the Amazon rain forest is being cut down and burned to provide a one-time harvest of wood and a few years of crop production (deforestation), severe deterioration of the global ocean fisheries resource is occurring, congested freeways at times become great linear parking lots and, of much direct concern to many university students and faculty, some parking facilities have become so oversold that their utility is seriously curtailed as paying customers cannot find parking space.

The logic of the commons holds true in modern times in which the global commons consist of the air humans must breathe, water resources, agricultural lands, mineral resources, capacity of the natural environment to absorb wastes, and all other facets of natural capital. According to the logic of the commons, each consumer has the right to acquire a segment of natural capital, the cost of which is distributed throughout the commons and shared by all. The natural competition among consumers results in some consumers acquiring relatively more of Earth’s natural capital and becoming wealthier. Within limits this is a healthy consequence of capitalist systems. However, if enough consumer units use too much natural capital, it becomes exhausted and unsustainable, therefore unable to support the society as a whole, so that all suffer, including those on top of the consumer food chain.

Automotive transportation illustrates a modern tragedy of the commons. Acquisition of an automobile adds to an individual’s possessions and mobility. The materials required to make a single automobile, the fuel to run it, and its exhaust pollutants make a minuscule impression on Earth’s natural capital. However, when millions of people acquire automobiles, the demand on Earth’s natural capital of materials, fuel, and ability to absorb pollutants becomes severely stressed, heavy traffic turns the automobile from a convenience into a burden, and, in some places at some times, the whole transportation system collapses.

These “tragedies of the commons” illustrate the limitations of unregulated “free-for-all” capitalist economic systems in achieving sustainable development and make a strong case for collective actions in the public sector to ensure that humankind can exist within the limits of Earth’s natural capital. However, the collapse of Communist economic systems around 1990 left a legacy of abandoned, inefficient factories, poverty, and environmental degradation showing the adverse effects from discouraging private enterprise. In addition to enlightened regulations that ensure preservation of Earth’s essential support systems, successful economic systems require human ingenuity, initiative, and even greed. Getting these and other incentives to work well on a planet in which natural capital is the major limiting economic factor is the huge challenge facing modern and developing economies.

There is an old African proverb that translates to, “It takes a village to raise a child.” The idea is of course that successful child-rearing requires the efforts of more than just parents, but requires the efforts of an entire village. The same principle applies to Planet Earth except that in this case billions of children are being raised and it will take the efforts of a very large village — the population of the entire world — to preserve the planet and its resources upon which those billions of children must depend for their existence.

This page titled [1.5: Sustainability as a Group Effort- It Takes a \(Very Big\) Village](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by [Stanley E. Manahan](#).