

Sustainability of “The Commons”

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In “The Tragedy of the Commons,” biologist Garrett Hardin examines the hazards that can beset common resources employed by multiple users without formal outside controls. One of his assertions is that fundamental individual desires like greed will overcome the ability of the resource to provide for many. The notion of “the commons” applies to more than just the antiquated system of public grazing areas. And the cases most worthy of study, it seems, involve resources that – unlike land – cannot be directly owned and thus simply controlled. One such resource is the river.

Since the beginning of human existence, rivers have been prized as a collective resource – as conduits for navigation, providers of irrigation, deliverers of mechanical power, as sources of food and drink for general sustenance. The simple growth of the population, as Hardin explains, is enough to endanger these resources. But just as consequential are the changes in consumption brought about by the industrial revolution. No longer relevant for the mere subsistence of individuals, the resources of the rivers came to be needed *en masse* for production and sale. Dams were built to harness the power of the water for factories. Fishing grew into large-scale businesses operating with unprecedented efficiency. Conflicts arising over the fair allocation of resources for fishing and small-scale water power certainly brought about improvised solutions, but it is evident that only through government intervention on a larger scale are the best interests of many served.

The Charles River illustrates this concept well. Mills harnessing river power existed here in significant numbers even in the pre-colonial – and pre-industrial – days. The earliest

conflicts over this resource arose between mill owners and riverside farmers. The mill owners would close flood gates during dry summers to store water. The backup of water flooded upstream meadowlands that were used for farming. Both sides had claimed a right to their piece of nature. Perhaps setting a precedent for future government involvement in the rivers, the problem was resolved in Dedham, Massachusetts by a mandate to dam owners to lower their flashboards during months when field drainage was necessary. Even in the pre-industrial days, ad-hoc solutions were apparently unsuccessful. Affected farmers sometimes resorted to what Ted Steinberg calls “abating the nuisance with their own hands:” sabotage of the dams, or the surreptitious widening of the Mother Brook diversion. Out of the general fear wrought by this common-law approach came the Mill Acts, yet another formal state intervention which sought to encourage both the growth of the mills and fair compensation for affected farmers. Even in these simpler times, individual efforts were seen as insufficient to ensure the sustainability of common resources.

The damming of the Charles, not surprisingly, affected more than just farmers. In 1790, concerned that the rapid disappearance of fish from the river was due to the damming, Nathaniel Ames pushed the legislature for a bill to ensure the free passage of fish. His request was declined in deference to the objections of what today might be called “big tobacco” – Sam Elliot and his snuff mills. The fish vanished from the blocked-up river. Those who relied on them for food and profit were forced to give up. The scope of the larger ecological losses is unknown, but surely significant. The failure of the state to intervene in this issue, and their determination to let capitalistic growth freely run its course, brought dramatic consequences for the future that are not fully appreciated today.

As the Industrial Age firmly entrenched itself in the riverscape, conflicts between dam owners themselves emerged. As the size of the opposing groups grew, a telltale trend toward self-regulation of sorts appeared. Whereas individuals often sought respite from the government, the new industrial companies resolved their disputes in the proper American fashion: through lawsuits and shrewd financial out-maneuvering. In the most telling example, the

Waltham Cotton and Wool Factory Company and the Boston Manufacturing Company, each seeking more power from the same river, alternately raised their dam heights, temporarily crippling the other's production. This was resolved through a lawsuit that forced Waltham Cotton to lower its dam height, but later issues of dam heights came to be decided through negotiations and buyouts. In 1816, the appearance of a number of mills at Newton Lower Falls necessitated contracts governing first-flow and alternating-use rights. These solutions, crafted by those involved, were focused on optimizing financial gains.

As industry came of age, the diminished role of the government in resource management can be seen as the cause of such changes as the loss of natural fish. Thanks to the eventual obsolescence of water-powered industry, any other damages to the sustainability of the Charles River were small. But the lesson was not learned, and years later the situation nearly repeats itself at the opposite end of the country.

In the earliest days of fishing along the Columbia River, American Indians harvested salmon within the confines of a long-established culture of unassuming respect for the whims of nature and the ritual acknowledgement of the danger posed to their existence by unsustainable practices. The first settlers to the region were forced by social necessity to abide by similar practices. But the industrial revolution once again changed the system. The introduction of canning meant that the demand for fish was no longer bound by just local needs: fish could be marketed anywhere as a commodity. New technology brought "fish wheels" that pumped fish from the river. Fish traps and other forms of fixed-gear fishing flourished with each new development. The labor-intensive process of gillnetting, oddly enough, grew just as rapidly. Conflicts over fishing areas were mitigated as gillnetters formed unions to stake out territories as the other types of fisheries had by design. But as fish populations declined, the government largely stood by, inactive. The public seemed disinterested: when the fish-wheel operators and the gillnetters sought competing legal initiatives to shift the balance, Oregonians passed both of them. Indian treaty rights were disregarded. Competing jurisdictions in Oregon and Washington resulted in lax enforcement and circumvention of

what few rules there were. The federal government never stepped in. Soon, the common supply of salmon was nearly exhausted.

The notion of “the commons” extends to man-made resources as well. The modern power grid, as envisioned by Morris Cooke, is a vast network of interconnected supplies and demands, subject to all the same whims – of mother nature and human nature – that sculpt our more traditional commons. Gifford Pinchot, fighting substantial corporate resistance, brought “Giant Power” to life under public control. Over decades, with government supervision, the grid grew to envelop the whole country while the country’s way of life grew to embrace it as a necessity. The power grid came to be seen as a fairer, more perfect model of nature’s commons: customers pay a fair price to extract what they want, while utilities get paid to input what they can make. The electric meter ensures that nobody takes more than his fair share. Behind the scenes, the public utilities, bound by law to provide for the long-term needs of the people, kept the grid humming along in top shape.

But the same problems that plagued the rivers soon appeared with the power grid. The physical “grid” exists in a duality of perception: the wires and poles and towers are an eyesore, but the crucial role of that equipment, like electricity itself, is invisible. The public, disinterested in the “nature” of their own creation, became convinced that electricity would be cheaper with privatization and competition. Smaller utilities, it was thought, would be more efficient. Thus began the movement toward deregulation. Groups of private utilities assumed control of their parts of the system. Conflicts between groups began to be settled internally without larger oversight. As a result, our grid today is a crippled, aging, and unreliable thing. Upgrades to this “commons” make money for nobody. The utilities consider improving the grid to be aiding their competitors. Equipment is no longer maintained because it is cheaper to simply let it fail and replace it with insurance money. Major failures are occurring with greater frequency. People, determined to extract more than even a man-made resource can offer, have brought the power grid to a dire state.

Richard White believes that Hardin’s “tragedy of the commons” – the inevitable over-

exploitation of common resources – is “an invention.” He claims that “in historical practice users of common resources set up rules and limits; they created customs; they limited access.” While this is true, evidence overwhelmingly illustrates that producers and consumers of shared resources consolidate their “rules and limits” to their favor. In a capitalist society, there is no immediate economic benefit to sustainability. Time and time again, from the colonial days to the twenty-first century, we have blindly followed the same dangerous pattern of over-exploitation. Reluctant as we may be to submit to government interference, history has demonstrated that only through such intervention can we achieve sustainability.