PROPERTY RIGHTS

a briefing by Jon D. Erickson

Every economic decision depends on the assignment of property rights. Without rights established through formal means such as legal institutions, or informally through norms and custom, social cooperation toward individual or common goals is impossible. The assignment of property rights are at the core of basic obligations and responsibilities of individuals, communities, states, and global institutions. As such, the goals of society shape and are shaped by the societal choice of property rights regimes.

The choice of how and for whom to assign property rights in a democracy are that of the people. The distribution of these rights is determined by participatory or representative processes that respect both the aims of the present and the options of future generations. Even in nations where property rights are tilted more toward the individual than the state, this assignment is ultimately a product of the state and a function of society's goals. Strict private property regimes shouldn't be confused as a prerequisite for a free society, but rather one of many possible outcomes of democratic processes.

Key determinants of this choice along spectrums of private to public, and local to global, are the relative abundance of resources and knowledge of their characteristics and function. When resources are abundant, a social system where the individual is assigned the rights to do as they please with property but not the responsibility of their actions on others may be a logical outcome of a democratic process. When uncertainty or ignorance of the social consequences of individual decisions is high, then again a democratic process might favor a regime where the individual exercises their rights in a vacuum, without knowledge of their actions onto others. However, in a world of increasing scarcity and improving knowledge, democratic processes may choose to reassign portions of property rights away from the individual and to community, state, and even international public institutions.

Growing natural resource scarcity and greater awareness of our interdependence on ecological systems has greatly influenced the evolution of property rights worldwide. Consider the evolution from private property, to liability, to inalienable rules that has occurred in recent decades in most nations of the world (Daly and Farley, 2004). With rights defined only by **private property rules** – when an individual is free to interfere with or prevent interference from another – a person is not obligated to limit the impact of their decisions on others. Excludability (e.g. no trespassing laws) and externalities (e.g. air and water pollution) are the rights of the individual under a private property rule. When society deems a narrow assignment

of rights to the individual to be harmful and unfair to others, **liability rules** can be added that still allow interference or prevention, but only with just compensation for those harmed. Environmental regulation, pollution taxes and quotas, and general legal mechanisms that provide for damage compensation, are all examples of liability rules to some degree. For example, the right to pollute remains with a coal-fired electric utility, but pollution is permitted under certain conditions (e.g. technology constraints), amounts (e.g. allowable emissions), and often with payments to the state (e.g. permits or taxes). An example of the recent evolution of liability rules was the 1989 Exxon Valdez oil spill off the coast of Alaska, where a private company was held liable for a record one billion dollars in damages including passive use losses from people not even directly affected by the spill (Carson et al., 2003). There are far more cases of environmental damages where liability rules are not sufficient, such as the Chernobyl nuclear disaster in Russia, Union Carbide's poisonous gas leak in Bhopal India, and countless much less public cases where the powerful hold property rights over the powerless. In the United States, highly polluting industries are more likely to be located in poor, nonwhite neighborhoods, and the poor are rarely compensated for the costs of pollution (Brooks and Sethi, 1997).

Inalienable rules expand the realm of rights still further, beyond a compensator and compensatee, to entitle anyone to have or not have something, with no one allowed to take away the right for any reason. Constitutions of democratic governments guarantee inalienable rights that form the basis of national law and the foundation of functioning economies. The Universal Declaration of Human Rights, originally ratified by 48 nations just three years after the 1945 United Nations charter, takes precedence over the power of the state through declaring universal civil, political, economic, social and cultural rights as "the foundation of freedom, justice and peace in the world" (www.un.org/rights/). However such national and international laws and declarations don't always translate into enforceable inalienable rules. The second *Human* Development Report of the United Nations Development Program published in 1991 a Human Freedom Index, arguing that freedom strengthens economic development. The index classified 88 countries according to 40 freedom indicators, for example, freedom of travel, association, press, courts, religion, and freedoms from such acts as forced child labor, unlawful detention, and torture. Eighteen of the study countries had 75% or more of the indicators, while 38 countries had only 25%. The index sparked a storm of criticism by member countries and has not been published since (Barsh, 1993).

Rights and obligations to well-functioning environmental systems represent the next frontier of the ongoing evolution of property, liability, and inalienable rules. Terrestrial and aquatic ecosystems provide goods and services that benefit individual property owners and society alike. Many **ecosystem goods** like timber and agriculture have traditionally been considered

excludable and subject to private property rules. When enforceable liability rules on management and externalities are in place a balance can be reached between individual gains and broader social goals such as ecological sustainability. Other non-excludable goods, such as public grasslands, fisheries, and water supplies have been more difficult to manage due to a lack of clear and enforceable property or liability rules, leading to what Garret Hardin (1968) called the "tragedy of the commons". Very often these open access resources were sustainably managed for generations when social norms had time to evolve (Ostrom, 1990, 2000), but the pace of global market forces have pushed many beyond renewable limits (Vitousek et al., 1997; Ostrom et al., 1999). Privatization can lead to efficient management of open access resources, but is often impossible due to the physical characteristics of goods or undesirable due to distributional consequences of property rights assignment. The use of **nonrenewable resources**, like minerals and fossil fuels, also disrupt ecosystems by externalities of extraction and distribution (e.g. mining, drilling, pipelines, shipping) as well as their ultimate consumption (e.g. greenhouse gases, tropospheric ozone, acid deposition). Nonrenewables are also the result of geological processes over millennia. Since humans can not manage these processes, much less create them, the rationale that individual owners should be the sole benefactors of the bounty of nature is somewhat limited.

With regards to **ecosystem services**, the role of property and liability rules is even less clear. Our common wealth from functioning ecosystems includes breathable air, flood protection, storm water conveyance, biodiversity, climate stabilization, flood control, nutrient cycling, and waste assimilation, among others (de Groot et al., 2002). These services are **pure public goods** in that they are neither excludable nor rival, meaning one person's enjoyment of the service does not interfere with another's. Anyone can benefit from a public good or service regardless of who pays the bill. Thus the individual owner of a resource that provides public services – for instance a privately owned forest that cleans water, produces oxygen, sequesters carbon, and provides wildlife habitat – may not have an owner with the incentive or obligation (beyond good will) to manage the resource for the public benefit. In the absence of public rights or liability rules over these nonexcludable and nonrival services, a private owner may do as they wish with the structure of the ecosystem (forest for timber, land for minerals, streams for irrigation) at the detriment to its function.

The realization of the inherent inefficiencies, and ultimately unsustainability, of outdated property rights regimes is leading to a new generation of institutions and policy mechanisms in environmental management. For example, the Alaska Permanent Fund was established by state constitutional amendment in 1976 to assign ownership and leasing proceeds from private oil

exploration to the citizens of Alaska. In a well known case of assigning rights to ecosystem services, New York City created a public watershed corporation to manage \$1 billion in watershed protection and compatible community development programs throughout the rural economies of its watershed, and in turn avoided an estimated \$6 billion in capital costs and millions in annual operating costs to build and run a water treatment plant (Chichilnisky and Heal, 1998; Heal, 2000).² The creation of **stormwater utilities**, for example in South Burlington, Vermont,³ are the next generation of watershed institutions that are redefining the obligations of the private landowner for the public good. Also, a rapidly evolving practice of land conservation is the purchase of public easements to secure development rights, recreational access, or other property rights by the state or nongovernmental organizations, with the title remaining in private hands and available for compatible private enterprise such as sustainable forestry or farming (Merenlender et al., 2004; Byers and Ponte, 2005). And perhaps the biggest challenge to property rights will come in the aftermath of hurricanes Katrina and Rita in the Gulf Coast. The ecosystem services of wetlands in the form of storm surge protection and a myriad of other benefits to hurricane-prone economies are being discussed in the context of ecological restoration proposals that could further push the boundaries of property rights reform and the discussion of inalienable human rights.

These examples all highlight the diverse alternatives when democracies come to terms with the market failures perpetuated by current property right assignments. The evolution of property, liability, and inalienable rules have evolved from local externalities to global transboundary problems, and from the relatively certain impacts of point source pollution to the more diffuse and complex interdependencies of economies on ecological functions. Each generation revisits the assignment of property rights, often initiated and mediated by civil society on behalf of the powerless. The status quo always benefits someone, and with history as a guide, the beneficiaries are typically few while the vulnerable are many.

Prepared by Jon D. Erickson, Associate Professor of Ecological Economics, Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT 05405, USA, jon.erickson@uvm.edu.

References

Barsh, R.L., "Measuring Human Rights: Problems of Methodology and Purpose," *Human Rights Quarterly* 15(1): 87-121, 1993.

¹ See the Alaska Permanent Fund Corporation at www.apfc.org, accessed Aug. 17, 2006.

² See the Catskill Watershed Corporation at www.cwconline.org, accessed Aug. 17, 2006.

³ See the South Burlington Stormwater Utility at www.south-burlington.com/stormwater/ accessed Aug. 17, 2006.

- Brooks, N. and R. Sethi, "The Distribution of Pollution: Community Characteristics and Exposure to Air Toxics," *Journal of Environmental Economics and Management* 32: 233-250, 1997.
- Byers, E. and K.M. Ponte, *The Conservation Easement Handbook*, Second Edition, Land Trust Alliance, Washington, DC, and The Trust for Public Land, San Francisco, CA, 2005.
- Carson, R.T., Mitchell, R.C., Haneman, M., Koop, R.J., Presser, S. and P.A. Rund, "Contingent Valuation and Lost Passive Use: Damages from the Exxon Valdez Oil Spill," *Environmental and Resource Economics* 25(3): 257-286, 2003.
- Chichilnisky, G. and G.M. Heal, "Economic Returns from the Biosphere," *Nature* 391: 629-630, 1998.
- Daly, H.E. and J. Farley, *Ecological Economics: Principles and Applications*, Island Press, Washington, DC, USA, 2004.
- de Groot, R.S., Wilson, M.A. and R.M.J. Boumans, "A Typology for the Classification, Description, and Valuation of Ecosystem Functions, Goods and Services," *Ecological Economics* 41: 393-408, 2002.
- Hardin, G., "The Tragedy of the Commons," Science 162: 1243-1248, 1968.
- Heal, G.M., *Nature and the Marketplace: Capturing the Value of Ecosystem Services*, Island Press, Washington, DC, 2000.
- Merenlender, A.M., Huntsinger, L., Guthey, G. and S.K. Fairfax, "Land Trusts and Conservation Easements: Who is Conserving What for Whom?" *Conservation Biology* 18(1): 65-76, 2004.
- Ostrom, E., Governing the Commons: the Evolution of Institutions for Collective Action, Cambridge University Press, UK, 1990.
- Ostrom, E., Burger, J., Field, C.B., Norgaard, R.B. and D. Policansky, "Revisiting the Commons: Local Lessons, Global Challenges," *Science* 284 (5412): 278-282, 1999.
- Ostrom, E., "Collective Action and the Evolution of Social Norms," *Journal of Economic Perspectives* 14(3): 137-158, 2000.
- Vitousek, P.M., Mooney, H.A., Lubchenco, J., and J.M. Melillo, "Human Domination of Earth's Ecosystem," *Science* 277: 494-499, 1997.