GREAT TRANSITION INITIATIVE
TOWARD A TRANSFORMATIVE VISION AND PRAXIS

August 2014

Monetizing Nature: Taking Precaution on a Slippery Slope

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In the wake of declining political will for environmental protection, many in the environmental community are advocating for the monetization of nature. Some argue that monetization, by revealing the economic contribution of nature and its services, can heighten public awareness and bolster conservation efforts. Others go beyond such broad conceptual calculations and seek to establish tradable prices for ecosystem services, claiming that markets can achieve what politics has not. However, such an approach collapses nature's complex functions into a set of commodities stripped from their social, cultural, and ecological context and can pose a threat to the poor and indigenous communities who depend on the land for their livelihood. Although the path from valuation to commodification is not inevitable, it is indeed a slippery slope. Avoiding this pitfall requires a reaffirmation of the precautionary principle and a commitment to democratic decision-making and social justice as the foundations of a sound environmental policy for the twenty-first century.

The Promises and Perils of Ecological Economism

Do nature's services need a monetary value? Over the past decade, members of the environmental community have been increasingly saying "yes," arguing that conservation policy must have an economic motive to get sufficient attention from policymakers and the public. Among the proponents of this new ecological economism, one can find two distinct approaches.

One approach seeks to monetize the value of nature simply in order to reveal its immense economic contribution to society. Its champions point out that the significant value created by nature and its diverse services to humanity often goes unnoticed. Quantifying its full extent, they claim, would help to generate the political will to prevent the further destruction of nature and to facilitate its rehabilitation. The best way to reveal nature's value, they conclude, is to present it in the terms policymakers understand best: money.

The political will to prioritize the conservation of nature over resource extraction or infrastructure development is itself rapidly becoming an endangered species.

A second group of thinkers is taking such economism even further. They argue that monetization is only meaningful and effective if there are markets to set prices for the ecosystem services in question. Markets for such commodified ecosystem services, they argue, can protect conservation policy from the vagaries of political will. Roll back bureaucratic red tape, and let the market work its magic to save nature.

The line between valuation and commodification, although clear in theory, becomes blurred in practice. To be sure, valuation alone does not inevitably entail the risks to the preservation of nature intrinsic to commodification. Nevertheless, it changes how we see and relate to nature and can inadvertently pave the way for the privatization of ecosystem services that the advocates of valuation often oppose. We must, therefore, approach the issue of monetizing nature with grave caution and not allow it to weaken the precautionary principle, nor the principle of democracy itself, both of which we need for scientifically sound and socially just environmental policy.

Where There Is No Will, Can There Be a Way?

Among nature conservationists, a deep-seated frustration prevails. Although the loss of biological diversity and the degradation of ecosystems are proceeding at an unprecedented scale, nature conservation remains politically unpopular. The implementation of the political directives and multilateral commitments from the Convention on Biological Diversity has been halting at best. The biodiversity targets of the Millennium Development Goals (MDGs) have been spectacularly missed. Funds are lacking for maintaining old, let alone establishing new, protected areas. The political will to prioritize the conservation of nature over resource extraction or infrastructure development is itself rapidly becoming an endangered species.

As a result, conservationists have sought a new strategy and have settled on monetization. Although the concept of valuing ecosystem services goes back to the 1970s and has appeared in conservation debates ever since, it has gained renewed

attention over the past decade. In 2001, Kofi Annan commissioned the Millennium Ecosystem Assessment on behalf of the United Nations to reveal the unnoticed contributions of nature to human well-being.[1] Although the report, released four years later, produced no noticeable political shift in support for environmental protection, it sparked an interest in incorporating economic incentives into environmental policy. The year 2005 marked the launch of the EU's Emission Trading Scheme (ETS), which applied market principles to climate change mitigation. The United Nations Framework Convention on Climate Change (UNFCC) also began to develop a scheme known as REDD+ (Reducing emissions from deforestation and forest degradation), which some policymakers have sought to turn into a carbon offset market. In 2008, the TEEB study (The Economics of Ecosystems and Biodiversity), commissioned by the G8 member states, took the economistic approach of the Millennium Ecosystem Assessment a step further with its policy recommendations. The report sought to bring the economic value of nature into the calculation of national economic accounts and advocated for the incorporation of biodiversity offsets into domestic and international conservation policy.[2]

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Environmentalists, business leaders, and policymakers have all sought to make environmental protection an economic rather than just a political issue. The introduction of "no net loss" policies, which allow economic development to proceed as long as the net acreage of a specific type of ecosystem is maintained, have effected a paradigm shift in environmental policymaking. However, offsetting ignores how unique and interconnected biodiversity is, and it overlooks the importance of nature for local communities and the ways they suffer when their ecosystems are damaged. Land-use policies based on whether a company can pay for an offset, and not on what local communities and humanity need to survive, undermine basic rights and democratic principles.

Not Seeing the Forest for the Trees (Nor the People in the Forest)

As advocates of nature valuation point out, national economic accounts such as GDP remain blind to the services of nature. Such accounts likewise fail to distinguish between constructive and destructive economic activity with respect to human and ecological well-being. The razing of a forest contributes to the GDP whereas its protection, by leaving it untouched, will not. Revealing the full value of nature to the economy, advocates argue, would not only encourage stronger policy, but also support public mobilization against environmentally destructive policies and for environmentally restorative ones.

A number of improvements on national accounting systems have thus been proposed. The Genuine Progress Indicator, which has attracted the attention of policymakers across the United States and European Union, subtracts the costs of ozone depletion, pollution impacts, and loss of farmlands and wetlands from the total GDP.[3] The World Bank has begun a new initiative called Wealth Accounting and Valuation of Ecosystem Services (WAVES) to expand the reach and applicability of

such revised economic accounting systems.

Needless to say, a deeper understanding and greater awareness of the relationship of society to nature is always welcome, but the rigor and usefulness of GDP-level information remains questionable. In order to convert the information about nature's services into a form appropriate for national accounting, analysts must aggregate the data from all existing ecosystems and allocate their increased or decreased value to each nation-state. Moreover, determining an economic value for ecosystem services requires first describing all the services provided by a particular ecosystem—a formidable task.

Delineating an individual ecosystem from the complex fabric of nature poses numerous significant challenges. For example, the provision of oxygen for humans and animals to breathe is an ecosystem service of global scale. But how do we value the contribution of individual sub-systems like a single forest to this global service? We could all still breathe if one forest is cut down, but not if all forests were cut down. At a local scale, quantifying the value of a tree is problematic because even a single tree provides many services. Its roots provide benefits to the soil, its leaves provide oxygen, and its trunk could provide lumber or paper for industry. If valuing an identifiable part of an ecosystem like a tree is difficult, valuing a regional ecosystem, such as a grassland that nourishes wild animals and stores carbon in the soil, is even more methodologically intractable.

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Beyond the daunting technical difficulties, embarking upon the path of valuation also changes the way we see and understand nature. In order to determine the value of an ecosystem for policy purposes, such as conducting a cost-benefit analysis for a new development project, we need to take into account all aspects of the ecosystem. But the value of the whole ecosystem to society is more than the sum of its monetized parts: reducing its value to mere monetary terms, even if it were technically practical, strips away its cultural and spiritual value. A bad policy decision can be fixed, but the holistic functions of nature cannot so easily be replaced.

Interacting with ecosystems as economic entities and disaggregating them into various "services" thus puts us on the path toward viewing such services as mere commodities. Through disaggregation, each service can be rendered into a discrete monetizable "package" so that it can have its own market and its own price. Such an approach tilts policymaking in favor of the interests of the economically powerful. The least powerful actors—often local communities, indigenous peoples, women, small-scale farmers, etc.—get pushed to the margins, their voices ignored.

Offsetting schemes have increasingly entered the complex spheres of forest and habitat preservation. For example, with the backing of the country's agribusiness lobby, Brazil recently launched the Rio de Janeiro Green Exchange (Bolsa Verde), which allows individual and corporate landowners to buy their way out of previous legal obligation to maintain a certain proportion of their land in near-pristine condition.

The degradation of land in one area of Brazil can proceed apace with little concern, as payments for offset certificates—the conservation of an "equivalent" piece of land elsewhere in the country—simply become the cost of doing business. There are even reports of purely speculative certificate purchases where corporations buy up remote Amazonian land in order to sell forest conservation certificates to conserve land and forests that would never have been disrupted anyway.[4]

Such tradable certificates raise serious questions about the imbalance of power between market actors. Many ecosystems that are still reasonably intact are home to poor and indigenous communities. Under a trading scheme, a large corporation could purchase such land for an offset, expelling those who have depended on it for their livelihoods for centuries. Furthermore, such traditional communities have a very different concept of property than Western capitalism. No single person "owns" the land when resources are treated as a commons; however, the establishment of a market for tradable certificates depends on the principle of private property, a threat to the commons governance often found in indigenous communities. The risk of abuse when forest offset certificates are applied in the context of communal ownership are thus immense, especially since these communities lack the political, legal, and economic power enjoyed by the prospective buyer.

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Back to First Principles

In order to prevent monetization from slipping into commodification, we must revisit one of the hallowed principles of environmental policy: the precautionary principle. It states that when an action or policy could pose a substantial risk to the environment, a very high burden of justification should fall on those seeking to take such an action. Like the classical mantra of medical ethics, the precautionary principle insists upon first doing no harm.

The precautionary principle illuminates the clear difference between a payment for preservation and a license to destroy. For example, policymakers sometimes seek to prioritize biodiversity *preservation* over agricultural or infrastructural development in a certain area, where this lack of *development* might come at a lost opportunity cost to the farmers or other owners of the land. Thus, to compensate them for the forgone economic opportunity, the state provides a direct payment to the land owners, essentially a payment for the "ecosystem service" maintained. Such conservation payments are, in fact, central to US and EU agricultural policy. No new commodity or market is created: the public (as opposed to the private) sector is the only actor to provide the compensation, and the policy aims to *maintain* nature in its current state.

Such payments for ecosystem preservation are quite distinct, conceptually and practically, from the implementation of market-based environmental trading schemes. Under a trading scheme, investors need not forgo economic development; rather, they can compensate society for the resultant destruction by paying for the preservation of an "equivalent" piece of land elsewhere. From the perspective of the

developer, this new piece of land takes the form of a certificate for an ecosystem service, but it is detached from its physical reality.

Monetization can also be appropriate in the application of the "polluter pays principle," a key part of international environmental law. According to this principle, in the event of *unavoidable* environmental damage (such as an environmental disaster), the responsible entity must provide appropriate compensation for the value of the damage. As the damage has already been done, the demand for repayment can serve as a deterrent, raising the economic stakes of future disasters. The focus is no longer on estimating the value of the ecosystems themselves, but on the cost of the necessary repair. As the repairs proceed, the cost estimate can be adjusted appropriately, making the need to estimate the value of nature in the abstract irrelevant.

Consider, for example, the Deepwater Horizon oil spill from 2010. When the drilling platform exploded, an estimated 800 million liters of oil flowed into the sea over many weeks, in one of the worst environmental disasters of its kind. The resulting damage to the flora and fauna of the Gulf region, as well as to the surrounding fishing industry, was immense. Through 2012, British Petroleum (BP), the owner, was required by law to reimburse public and private entities a total of $43 billion for the consequential damages. The damage done to the Gulf of Mexico, however, was largely irreversible: no amount of money can completely undo the damage. The counsel of the precautionary principle remains paramount: the drilling should have never started in the first place.

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Over the past several decades, we have seen not only increasing environmental degradation, but also the erosion of the concepts of the public good and collective responsibility to preserve nature. In embracing the monetary valuation of nature as a strategy for mobilizing support for environmental conservation, environmentalists are resigning themselves to a political status quo that can only comprehend value in terms of money and markets. By viewing ecosystems and their services through a pecuniary lens, monetization profoundly changes our relationship with nature, and, if taken to the point of commodification, can subject the fragility of nature's balance to the destructive logic and volatility of markets. Even though the trend toward the privatization of public goods has been pervasive over the past decades, we should not acquiesce so easily in allowing the privatization of the most basic public good of all—nature itself. We must meet the grave environmental challenges of the twenty-first century with boldness and prudence, using the precautionary principle, along with the principles of fairness and democracy, to set boundaries that human action must not transgress.

Endnotes

1. For a recent review of such efforts, see Robert Costanza et al., "Changes in the Global Value of Ecosystem Services," *Global Environmental Change* 26 (2014): 152-158; Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Synthesis* (Washington, DC: Island Press, 2005).
2. Naturkapital Deutschland—TEEB DE, *Der Wert der Natur für Wirtschaft und Gesellschaft—Eine Einführung* (Bonn: Federal Agency for Nature Conservation, 2012), 15, available at http://www.bfn.de/fileadmin/MDB/documents/themen/oekonomie/teeb_de_einfuehurung_1seitig.pdf.
3. See, for example, the FRESH (Forwarding Regional Environmental Sustainable Hierarchies) project in the EU (http://freshproject.eu/index.php) as well as recent efforts in Maryland (http://www.dnr.maryland.gov/mdgpi/) and Vermont (http://vtgpi.org/about.html) in the United States.
4. Jutta Kill, *Trade in Ecosystem Services: When 'Payment for Environmental Services' Delivers a Permit to Destroy* (Montevideo, Uruguay: World Rainforest Movement, 2014), available at http://www.wrm.org.uy/html/wp-content/uploads/2014/04/Trade-in-Ecosystem-Services.pdf.

About the Author



(photo: Bettina Keller, 2013)

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About the Publication

Published as a Viewpoint by the Great Transition Initiative.

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Cite as Barbara Unmüßig, "Monetizing Nature: Taking Precaution on a Slippery Slope." Great Transition Initiative (August 2014).

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