

# In markets we trust?

## Reality and myth in Market-Based-Instruments for environmental governance

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### Summary:

The framing of environmental problems as a failure to price non-market ecosystem services has coincided with the revival of monetary valuation and “market-based instruments” (MBIs) in the environmental science and policy agendas. We draw on empirical case studies and institutional economic theory to examine the scope and limits of MBIs in ecosystem services governance. We note that their scope of application to effectively address problems on the ground will be ultimately compromised by i) the non-fungible character of most ecosystem services complicates the definition of discrete tradable units, ii) the public good nature of most ecosystem services can involve high transaction costs for developing environmental markets, and iii) commodification of nature encounters wide societal contestation. We conclude by providing tentative criteria to define the scope and limits of markets in ecosystem services governance, including feasibility of technical substitutability and equivalence, transaction costs, basic needs, incommensurability, and environmental justice.

### Extended abstract:

The reach of markets and market values into aspects of life traditionally governed by nonmarket norms stands amongst one of the most significant developments of our time. Environmental science and policy have been no exception to this trend. Since the late 1980s we have witnessed the gradual fall of state regulation and so-called command-and-control policies that characterized the first generation of environmental policy instruments and the rise of the agenda for market-based instruments (MBIs).

The same institutions that steered the global agenda of environmental regulations (e.g. national governments, intergovernmental institutions, and international conservation agencies) are now promoting market-based policy instruments such as Payments for Ecosystem Services (PES), carbon trading schemes and biodiversity offsets. In comparison to state driven regulation, proponents of the latter argue that market-based instruments are more cost-effective, institutionally simpler, more able to provide resources for conservation (particularly from donors and the private sector), and more likely to create win-win solutions in pursuing goals of environmental conservation and poverty alleviation.

Nonetheless, the ascend of market-based approaches on conservation and development has coincided with a relative downturn in the international agenda for market liberalization due to a variety of reasons that include the failure of structural adjustments to bring about sustained economic growth, the economic success of Asian economies with a high degree of state intervention, and the ongoing global financial and food crises. This has been accompanied by rising questioning to the free market and free trade ideology and to market-based instruments as able to render widespread prosperity and environmental sustainability. Critics suggest that market-based instruments can erode intrinsic motivations for conservation, contribute to undesirable commodification of nature, and promote unequal access to land and resources by privileging to those with ability (rather than willingness) to pay.

After some years of thrive, it is now time to draw on advances in the recent literature on MBIs and from the emerging empirical evidence from case studies worldwide to appraise the extent to which expectations and fears related to market based instruments for conservation match the theory. Such an appraisal is not an easy matter. Since environmental and socio-economic dynamics are multifaceted and multidimensional by definition, the outcomes of the assessments depend largely on the pre-analytical lens adopted. Within the academic community, the views on the virtues and vices of market mechanisms to reconcile environmental and social goals vary greatly. For instance, conclusions about the same scheme can differ greatly depending on the relative weight given to economic efficiency, environmental performance, and social equity criteria when conducting the appraisal. Furthermore academic communities with differing views on this topic tend to remain apart from each other sticking to their own assumptions, which hampers the possibility of constructive dialectic debates.

This presentation outlines the introduction to the forthcoming special section in Ecological Economics entitled “In Markets we trust? Scope and limits of market-based instruments in ecosystem services governance”. We bring together a variety of views from different disciplines to the same discussion table in order to contrast their visions. Such debate is nowadays necessary due to the fact that (i) it is time to evaluate the performance of market-based instruments in conservation and poverty alleviation in the light of emerging data from case studies; (ii) put in dialogue academic communities with differing views on this topic that tend to remain apart from each other (iii) promote debate to inform practitioners, donors, and governments in their strategic decisions about different policy instruments. We pursue three goals. First, we synthesize recent theoretical developments and empirical findings regarding the nature of market-based instruments with a focus of PES. Second, we examine the role that pre analytical visions, methodological assumptions, and implicit normative positions play in shaping academic perception of the effectiveness and legitimacy of market-based instruments. Third, we derive tentative criteria to define the scope and limits of markets in ecosystem services in the light of the social, institutional, and biophysical limits to their implementation.

Our results are based on recent development in ecological economics and on empirical findings from case studies in developing countries in Africa, Asia, and Latin America. We expect that

our results will produce novel and important insights of use for research, policy and civil society audiences involved in the analysis and implementation of market-based instruments.

We show that while the use of MBIs is likely to increase in the coming years, their scope of application to effectively address environmental problems on the ground will be ultimately compromised by three major types of limitations: i) the non-fungible character of most ecosystem services complicates the definition of discrete tradable units, ii) the public good nature of most ecosystem services can involve high transaction costs for developing environmental markets, and iii) commodification of nature encounters wide societal contestation. We also note that responses to environmental problems that are traditionally framed in technical ways (e.g. need to correct the economic compass through monetary valuation and economic incentives) are in reality social dilemmas about the governance of the commons with fundamental political implications (e.g. where should the limits in the commodification of nature be set). We propose that, with rapid expansion in the implementation of MBIs there is a pressing need to deliberate on which ecosystem services fulfill the biophysical, institutional and ethical conditions to be governed by market instruments in an effective and legitimate way and which should be primarily governed by non-market institutions under logics of public policy and community-based regulation. We conclude by providing tentative criteria to define the scope and limits of markets in ecosystem services governance, including feasibility of technical substitutability and equivalence, transaction costs, basic needs, incommensurability, and environmental justice.