

newsletter

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EDITORIAL

The INVALUABLE project aims at studying the emergence of market-based instruments (MBIs) for ecosystem services and biodiversity. Taking stock of a multitude of understandings and perceptions by a variety of stakeholders on the very concept of MBIs, the project explores their theoretical background and related discourses. Indeed, before reporting on the impacts, risks and opportunities of these policy instruments, it appears necessary to identify and further distinguish between contrasted categories of instruments with little common ground. Besides, the careful analysis of discourses associated to the realm of MBIs is also critical to improve our research, as it will enable partners in the project to shy away from ideological views carried by a number of stakeholders—to the extent that such neutrality is deemed possible in social sciences.

The Climate Change (UNFCCC) and Biodiversity (CBD) Conventions both held their COP in 2012, and have brought some interesting developments for the project. At the Climate COP18 in Doha, REDD+ was the central point of interest from our perspective as this mechanism

pursues reduced tropical deforestation and as such represents a major opportunity for the maintenance of ecosystem services and biodiversity. It is presumably built on the premises of carbon markets as a source of sustainable and large-scale funding, and is more than often presented as a market mechanism that is performance-based at the national level. Yet the discussions on the appropriate “market-based approaches” include numerous types of incentives

for conservation. Arguably, they leave space for direct payment schemes that differ—and might be disconnected—from carbon markets in many ways. In the end, it appears that the variety of market-based approaches will be reflected by a combination of instruments at all levels of policy making and action. While international carbon markets are in danger, national and local levels will most likely

be the fields of application of other types of market-based approaches. In this context, our research clearly needs to make substantial progress to inform future decisions on the implementation of REDD+ on the ground.

The CBD COP11 in Hyderabad also provided interesting avenues for application of our analyses. Center stage in the negotiations was the Strategy for Resource Mobilization, as financial flows from developed to developing countries for biodiversity need significant increases to meet the Aichi Targets by 2020. While the negotiation outcome was rather poor with

limited, unclear financial commitments and little capacity to monitor the actual disbursement of funds, it served to emphasize the potential role of “innovative financial mechanisms” for mobilizing new resources. These are viewed as a complement to public funding such as Overseas Development Assistance (ODA)—on which pressure is doomed to remain with the economic crisis in most developed countries—with enhanced contributions by the private sector owing to the market nature (assumed or real) of the mechanisms. Payments for Ecosystem Services are put to the front in these discussions, altogether with biodiversity offsets. Yet these discussions are still insufficiently informed by research. For instance, their capacity to impulse a better allocation of resources through improved targeting and powerful incentives seems to depend a great deal on the type of MBI, namely its market characteristics. Evidence remains elusive, and attempts for more consistent methodologies and research frameworks would be welcome. We are striving to push in this direction with our own activities.

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“Our research clearly needs to make substantial progress to inform future decisions on the implementation of REDD+”

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PES and collective management of natural resources: Sociobosque program in Ecuador

The Sociobosque program in Ecuador proposes payments to communities for the conservation of natural ecosystems that are managed as common pool resources. Our team investigated the effects of this program on the local rules of governance, internal distribution and perceptions about the program.

The collective ownership and management of land and common pool natural resources (CPR) is still the norm among indigenous communities in Latin America. Local resource users typically set rules and enforcement instruments through autonomous decision-making structures. However, such institutions at the community level may also interact with other governance layers through a variety of modalities, including command-and-control or market-based instruments. Given the rising application globally of direct payments aiming to enhance the provision of ecosystem services, rural communities in

Latin America are also increasingly receiving such payments. It is thus important to understand how such financial incentives are affecting local institutions for the management of CPR.

Are external payments reinforcing or undermining collective action institutions? How are benefits distributed at the community level? What are the environmental and social implications of the induced changes?

These are some of the relevant questions of our research program around this issue. Under the framework of the INVALUABLE project, we have analysed the effects of external payments in the management of CPR (forests and paramos) in two indigenous communities located in the Ecuadorian Andes. The Sociobosque program is a state-led scheme for providing direct monetary incentives for conserving native ecosystems. About one million hectares have been already enrolled in this program, and around 90% of the payments are currently allocated to communities. The research dealt with three subjects: (a) assessing how the enrollment in the program has changed the set of rules governing the management of CPR; (b) an-

alysing how the funds have been invested and distributed locally; and (c) assessing the social perceptions about the program among the members of the communities.

We combined quantitative and qualitative methods, and the methodological instruments included surveys, focus groups and key-informant interviews. For the assessment of institutional change, we analysed historical changes that have taken place along 5 types of rules: roles of all actors; allocation of rights to make use of the resources and permitted activities; nature of contributions by different actors to the governance regime; who makes decisions and how; and reward/punishment rules.

In both locations we have found that important changes in the governance of CPR have taken place far before the payments started to be implemented, and engagement with the Sociobosque program just strengthened a process of governance improvement that had been triggered before. However, the internal governance of the fund, social awareness and distribution varied considerably between both communities. While in one case, decisions about how to manage the fund were taken by a relatively small group of people and resources were allocated to public goods (education and health facilities), in the other location such decisions were part of a highly participatory process, and resources were distributed directly to households through a community-led micro-credit program.

Though generalization is not possible from two cases only, the results suggest that: (a) the social effects and perceptions of PES in communities depend significantly on local institutions (and therefore generalization is difficult); and (b) in both cases payments are only rewards for historical good environmental stewardships (rather than forward-looking performance-based incentives), since they likely induce little additional effects on the conditions of ecosystems.

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“Internal governance of the fund, social awareness and distribution varied considerably between both communities”



Meine van Noordwijk

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As global scientific advisor of ICRAF, Meine van Noordwijk is in a perfect position to analyse and draw lessons from the multi-year RUPES program on rewards for environmental services that ended in December 2012 and covered 6 countries.

The RUPES program has focused on the notion of “rewards”. What are the differences with “payments”?

“When we framed the first phase of RUPES, about ten years ago, we were uncomfortable with the dominantly financial associations of the word “payments” and looked for wording that was inclusive of use rights, recognition, respect, market access and investments shifting development trajectories. Core objectives remained “economic incentives”, interpreted broadly, to “internalize externalities” of decision making regarding land use, and a result- or outcome-based approach, replacing ES-myths. What is needed for poor resource users around the world is new ways of relating to their fellow stakeholders in a planet Earth that drastically improves in both fairness and efficiency from what we currently have. The “payments” literature has been dominated by efficiency considerations from the “buyers” perspective. The term “rewards” retains a power imbalance, and we’ve gradually shifted towards “co-investment” as a more balanced term that refers to long-term pay-back to all who share risk and resources, be it land,

labor, knowledge or financial capital. Mainly to communicate these broader ideas with the practitioners’ community, we still use the PES terminology as umbrella term.

How do you locate RUPES experiments in the realm of market-based approaches?

From the start we were interested in the whole institutional learning curve that precedes effective mechanisms, and we engaged with “learning landscapes” in various stages of operationalizing broad PES concepts. It turned out that most of what was operational related to water, rather than biodiversity or carbon sequestration, with drinking water companies and hydropower plants acting as concentrator who linked end-users to local land users. While negotiation and bargaining are a common feature in the emergence of effective mechanisms, key aspects of “markets” in terms of conditionality (*quid pro quo*), voluntary engagement (opportunities to walk away from a deal), and information symmetry (know what you get and pay for, know your selling points) are a major challenge. Environmental services tend to be emerging properties at landscape scale that relate to individual land user decisions in strongly non-linear fashion and thus benefit from “collective action”, rather than

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being markets that are scalable to the individual actor.

Based on the lessons from RUPES, what is the way forward for research on market-based approaches for ecosystem services in the context of tropical developing countries?

We learned that “conditional land use rights” and “tenure” experiments that involved local and central government in seeking conflict resolution and win-win options for economically and environmentally attractive land use, relied on the gradual emergence of mutual trust, as a key currency in the exchange. Further unpacking “trust” and “reciprocity” in a context of “fairness plus efficiency” still is a real challenge with experimental behavioral economics as framework.

QUESTIONS ASKED BY ROMAIN PIRARD

For more details on RUPES lessons and proposed new frameworks for analysis, please read the synthesis written by Meine’s team: **“Payments for Environmental Services: evolution towards efficient and fair incentives for multifunctional landscapes”**, published in *Annu. Rev. Environ. Resour.* 37, 389-420

Are Payments for Environmental Services (PES) market-based instruments?

Market-based instruments (MBIs) are actively promoted for mobilizing resources for biodiversity, while PES are commonly presented as MBIs in discourses. Our team investigated what both types of policy tools have in common.

PES are prominent in the discourses praising the contribution of MBIs for biodiversity and ecosystem services. But the links between PES and the market paradigm are not obvious. We investigated this issue with a bibliometric analysis of the literature and through the lens of a previous typology of MBIs developed for the project and proposing 6 main categories of MBIs: markets where permits are traded for a given environmental objective (e.g. cap-and-trade), Coasean-type agreements (e.g. direct payments with negotiated contracts between providers and beneficiaries), regulatory price changes (e.g. taxes and subsidies), voluntary price changes (e.g. forest certification), reverse auctions (e.g. Conservation Reserve Program in the US), markets where biodiversity is traded (e.g. cork stoppers for preserving cork forests).

Based on a corpus of 75 references, we find that PES schemes suit specific categories of the typology. Indeed, they mainly fit as Coasean-type agreements (35%) and regulatory price changes (21%). This distribution is consistent with previous

conceptualizations of PES as bilateral agreements between providers and beneficiaries of ES; nevertheless, PES also significantly extend their realm of implementation to more government-financed, subsidy-like schemes as in Costa Rica.

It shows that many PES schemes are far from mirroring pure market transactions where supply and demand virtually meet to set the value of a commoditized environmental service. Instead, most schemes rely on bilateral contracts and associated payments over years. As a result, scientific literature on PES

tends to use case studies to assess household impacts at the local level (42%) as a methodology and gives priority to the following issues for assessment: environmental effectiveness (51%), efficiency (38%), poverty alleviation (38%), equity (21%) and local participation (21%).¹

In this context, it appears more policy-relevant to eventually oppose two broad and contrasted conceptions of markets. Building on the seminal work by Williamson (1979), we differentiate market governance and bilateral governance structures: the former exhibits “faceless buyers and sellers [who] meet for an instant to exchange standardized goods at equilibrium prices”; whereas the latter applies to transactions with specific, non-transferable investments in physical and human assets. These insights are consistent with other propositions to distinguish between markets for ES (MES) and payments for ES (PES).

Why do we think such a distinction is policy-relevant? Because the environmental and socio-economic impacts of each of these groups have no reason to be similar. Instruments operating like markets can be expected to induce better resource allocation, which may be translated as “efficiency”. Critiques may see here negative impacts related to the commodification of nature.

In contrast, instruments operating as payments may mostly deliver in terms of incentives, which may be translated as “environmental effectiveness”: service providers are assumed to make the desired decisions more likely when incentivized than with coercion. Critiques may see here a potential for the destruction of intrinsic motivations and social norms, or even a waste of financial resources when there is little additionality.

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“It is policy-relevant to oppose two contrasted conceptions of markets: bilateral and market governance”

“It shows that many PES schemes are far from mirroring pure market transactions”

1. Each article can apply several methodological approaches at once, hence the total exceeding 100%.

Research framework for WP2

The WP2 of INVALUABLE deals with the impacts of MBIs with a number of empirical case studies. In order to ensure the highest degree of cooperation and not to miss such an opportunity to build on many case studies being undertaken at the same time and for the same project, the WP2 leaders have pushed for the design and use of a common research framework and protocol.

During the first year of the INVALUABLE project, WP2 leaders have been working towards defining the appropriate research framework and protocols for the nine case studies involved. The challenge was to identify the best fit for finding synergies provided that case studies have many peculiarities with very diverse human resources capacities. As a result of three working seminars—in

March, June and December 2012—a collective research framework was designed following a methodological gradient. Research teams thus have the possibility to adopt the methodology they find most suitable for their case study within the boundaries of the framework below.

The research framework has 3 components:

- an analysis of the policy-making procedures and the dynamics and outcomes of the negotiations between involved actors with a special attention to participation (what criteria and capacity for all to participate);
- at the regional level (spatially explicit), an analysis of environmental effectiveness with spatial matching techniques;
- at the household level, a questionnaire capturing behavioral and socio-economic impacts of MBIs implementation.

Policy-making analysis will use the sequential and multiple streams policy analysis framework. Spatial matching

techniques will be improved by integrating governance indicators. At the household level the main innovation brought by the project will be to improve the empirical evidence towards motivation crowding-out processes.

‘Motivation crowding-out’ refers to changing motivations (their nature: altruism, profit-oriented, influenced by social norms, etc.) for performing a specific action. It could be blood donation, attendance to school classes, or volunteering for an NGO. But INVALUABLE is particularly interested in understanding how MBIs may lead farmers, and more generally speaking environmental services providers, to drop intrinsic motivations and prioritize extrinsic motivations instead. In our case, such a change would take place when they undertake conservation and restoration activities with MBIs, i.e. being subject to monetary incentives.

At present, this process or phenomenon lacks a clear understanding. Scientists and practitioners are divided

with respect to the potential hidden social impact of the large-scale implementation of MBIs. The difficulty in capturing crowding-out lies in its cognitive, progressive and slow change nature. INVALUABLE will attempt to produce new and cutting-edge knowledge on this issue by applying a common methodology to several case studies all over the world. The protocol to be implement-

ed mixes free listing, binary questions, and likert-scale answers in order to capture the degree of involvement of participants in the MBI scheme and in conservation activities, and their relationship with other participants.

This first year has therefore allowed WP2 members to define a precise research framework and methodology that will capture MBIs qualitative impacts (policy analysis and participation) to quantitative impacts (regional and local environmental and socio-economic impacts). It will also support feedbacks and interactions at all research levels and among partners.

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“The protocol to be implemented mixes free listing, binary questions, and likert-scale answers”

“We are interested in understanding how MBIs may lead farmers to drop intrinsic motivations and prioritize extrinsic motivations instead”

PARTNERS' PUBLICATIONS

Billé, R., Laurans, Y., Mermet, L., Pirard, R. and A. Rankovic, 2012, Valuation without action? On the use of economic valuations of ecosystem services, *IDDDRI Policy Brief N°07/12, Institute for Sustainable development and International Relations, Paris.*

Based on an extensive review of hundreds of references, the authors show that economic valuations of ecosystem services are poorly utilized according to their extremely low visibility in the literature. A number of assumptions are discussed for such a finding, with associated avenues for research.

Corbera, E., 2012, Problematizing REDD+ as an experiment in payments for ecosystem services, *Current Opinion in Environmental Sustainability, 4(6), pp. 612-619.*

This paper conceptualizes the REDD+ policy framework as the world's largest experiment in Payments for Ecosystem Services (PES).

Corbera, E. and U. Pascual, 2012, Ecosystem Services: Heed Social Goals, *Science, 335(10), pp. 355-356.*

The authors warn about the potential risks of social and environmental injustice with PES if up-scaled in a certain way that prioritizes environmental effectiveness.

Cundill, G., R. Rodela, 2012, A review of assertions about the processes and outcomes of social learning in natural resource management, *Journal of Environmental Management, 113, pp. 7-14.*

The authors trace the roots of current assertions about the processes and outcomes of social learning in natural resource management, and assess the extent to which there is an emerging consensus on these assertions.

Lapeyre, R., Pirard, R. and G. Kleitz, 2012, Resource Mobilisation for Aichi Targets: Ambiguous lessons from research on Market-Based Instruments, *IDDDRI Policy Brief N°15/12, Institute for Sustainable development and International Relations, Paris.*

This policy brief contributes to the debate on the use of market-based instruments for the mobilization of financial resources for meeting the Aichi targets of the CBD. The authors discuss the contrasted lessons from research in this respect.

Muradian, R. and L. Rival (Eds), 2012, *Governing the provision of ecosystem services*, Springer, The Netherlands.

This collective book analyses governance mechanisms and documents a paradigm shift over the last decade in the field of ecosystems and the environment: from instruments of control and "polluter pays principle" to incentive-based arrangements.

Pirard, R., 2012, Payments for Environmental Services (PES) in the public policy landscape: "Mandatory" spices in the Indonesian recipe, *Forest Policy and Economics, 18, pp. 23-29.*

This article describes and analyses a PES scheme in Indonesia, for watershed services, where local authorities have relied on regulations to collect financial resources from water consumers in order to design incentives contracts with upland farmers.

Pirard, R., Dooley, K. and T. Pistorius, 2012, Defining market-based approaches for REDD+, *IDDDRI Policy Brief N°16/12, Institute for Sustainable development and International Relations, Paris.*

This policy brief contributes to the REDD+ debate with a discussion of the variety of market-based instruments that could be applied. They show that these instruments should not be restricted to carbon markets. They cover numerous types of incentives schemes of interest for conservation.

Pistorius, T., 2012, From RED to REDD+: the evolution of a forest-based mitigation approach for developing countries, *Current Opinion in Environmental Sustainability, 4(6), pp. 638-645.*

The paper analyses the evolution and main features of REDD+ under the UNFCCC since 2005. Different phases of the debate are identified, each with different foci and repercussions on the negotiations.