

Roldan Muradian and Esteve Corbera

“The Simplicity of PES is Very Alluring, but We Cannot Use Simple Solutions to Solve Complex Problems”

By Ludivine Eloy and Emilie Coudel

Interview

Although there is currently a boom of Payment of Ecosystem Services (PES) initiatives in Latin America, including Brazil, little evidence about their effects or implications has been generated so far. In this sense, the application of policies without evidence is dangerous, alerts Roldan Muradian, a senior researcher at Radboud University Nijmegen, The Netherlands. Esteve Corbera, a senior research fellow at the Universitat Autònoma de Barcelona, in his turn emphasizes the importance of visualizing in which ways the rules that accompany PES implementation may or may not undermine the livelihood strategies of participants and non-participants.

Muradian and Corbera - both of whom have spent the past 10 years researching on PES - have been internationally recognized due to their innovative approach to the matter, which goes beyond the conventional economic approach. Frequently co-authoring scientific articles on PES, both researchers use an institutional economy and political economy approach to analyze the origins, impacts and games of power associated with the implementation of PES in developing countries. While Muradian tries to better characterize market instruments and incentives for conservation, Corbera seeks to identify innovative and more effective ways to improve the implementation of PES.

Corbera and Muradian were invited by Ludivine Eloy and Emilie Coudel to give an e-mail interview to *Sustainability in Debate*. The main excerpts of the interview follow below.

1. Why, when and how did you start working on PES? What is your main interest on the subject?

Roldan Muradian: I started to work on PES about 10 years ago. At that time these

arrangements were just emerging, and they constituted a new way to address the relationship between environmental conservation and rural development. During the last decade there has been a considerable expansion of PES implementation and research. Currently, my main interest lies on understanding the behavioral implications of paying people to contribute to the common good (as PES arrangements aim to do). I am also interested in reformulating the theory of PES. I feel we must move away from the idea that PES arrangements are attempts to solve market failures (externalities). We need a more comprehensive theoretical framework to explain why, in fact, most “market-based instruments” for managing ecosystem services are far from being “markets”. “Market-based” is likely an inappropriate terminology to define the flexible (hybrid) policy arrangements to deal with the loss of natural ecosystems.

Esteve Corbera: I started working on PES in 2001, looking at the implementation of forest-based carbon offset projects in Belize and Mexico. The research was for my doctoral dissertation and the perspective that I adopted was that of political ecology. Since then, my interests in PES have broadened to incorporate more typologies of payment schemes and more research questions, such as how payments shape, align with or contradict conservation goals, how effective they actually are, or how planning for PES schemes interacts with other land-use planning processes, such as large-scale agricultural developments.

2. What changes did the ES/PES approach bring to the context of pre-existing environmental policies in Latin-American countries?

RM: I think the ES/PES approach constitutes a paradigm shift, which is replacing the previous approaches based on the so-called “integrated conservation and development projects”. This new paradigm comes with its particular language, theory and practice. This is not, however, unique to Latin America - it is a worldwide phenomenon.

EC: From a pure procedural perspective, the PES idea has induced changes in legislation and has translated into novel policy initiatives, which in most cases still have a subsidy-oriented nature. However, it involves further governance complexities, with the state operating as a central but not a unique actor to guarantee the functioning of these initiatives. But guaranteeing such functioning does not necessarily equate with environmental effectiveness or social development.

3. Is there a Latin American specificity in relation to the implementation and governance of PES?

EC: I think that Latin America has been in the driving seat of PES since the late 1990s and early 2000s, with key multilateral institutions, such as the World Bank, pushing for and supporting governments in the development of PES schemes at national and local scales. The national programs of Costa Rica and Mexico were pioneers and were soon followed by similar programs in other countries, like Ecuador. One can easily find various PES schemes at local level



in almost all Latin American countries, including the more recently promoted REDD+ pilot projects. A key PES governance issue to consider in Latin America is that communities and landowners very often own the land targeted by payments, which implies that there is wide scope for targeting payments to the poorest individuals and groups who own land and manage ecosystems that are critical for conservation. This means that PES arrangements have the potential to benefit the poor and monitor benefits and compliance more effectively, albeit with potentially higher transaction costs. Additionally, most Latin American countries have a very highly-skilled and committed civil society that can design and implement PES schemes -and mobilize and maintain funding- in a very effective and socially responsible manner, in cooperation with public agencies and international organizations, when relevant.

RM: The specificity so far has been that this is the most advanced world region in terms of PES implementation. The national schemes in Costa Rica and Mexico and the active role of the World Bank have been very instrumental in the promotion of PES arrangements among Latin American countries (responding to a regional demand).

4. In the countries that you have studied, what are the mechanisms that stimulate the participation of small-scale farmers in PES, or on the contrary, lead to their exclusion?

EC: As highlighted above, land tenure is critical for the design and transparent implementation of PES. A key conundrum in Latin America, however, may be to identify community members and landowners who are excluded from formal institutions and decision-making and ensure that they can also participate in project schemes and benefit accordingly. When working with poorest communities, it is important to dedicate time and resources to understand local political dynamics, including representation and legitimacy in community institutions. Also key is to pay attention to those who are not invited to join the PES scheme or do not receive adequate information from group and community leaders, and to investigate why that happens. It becomes then paramount to find mechanisms through which PES arrangements can reach those who are excluded on the basis of tenure, gender, culture, political reasons etc. and balance out the needs of the project (i.e. to guarantee participation and buy-in by a majority) and the needs of those who are excluded, but wish to participate. Seemingly, it is important to visualize in which ways the rules that accompany PES implementation may or not undermine the livelihood strategies of some non-participants or disempowered individuals and devise the appropriate mechanisms to avoid “impoverishment through conservation”. Finally, it is vital to understand that some individuals, groups or communities may reject upfront the development of a PES scheme and may not be willing to receive incentives for various reasons; in these cases their decision needs to be respected.

RM: I think that small-scale farmers are more likely to participate when payments are given to communities (as distinct from individuals), as happens in Mexico and Ecuador.

5. What are the main challenges to Latin American governments in the design and implementation a national PES policy?

RM. There are several challenges, but probably the three most important ones are: (i) How to deal simultaneously with multiple policy goals (for instance, the need to contribute to rural economic development and the need to enhance the provision of ecosystem services), which often are not aligned; (ii) How to ensure additionality, since both monitoring additional changes and fully compensating opportunity costs increase considerably the direct and indirect costs of implementing PES arrangements; (iii) To deal with the issue of how and when to stop the payments (and to foresee the consequences of the interruption). I think it does not make sense to pay landholders forever for the provision of ecosystem services. In addition, a fully internalization of ES provision would likely ruin the state. Is it affordable and desirable to set PES forever?

EC: As noted earlier, several governments have established national programs that mostly consist of stimulating communities and individuals to manage their land and/or forests in particular ways, mostly for the conservation of forest cover. These programs are complemented by local schemes of watershed-related payments or carbon offsets, promoted by multiple organizations and policy frameworks, from local policy and governance arrangements to cross-scale partnerships under the evolving, national REDD+ architectures, which in turn are being supported by the UN-REDD initiative and the World Bank's Forest Carbon Partnership Facility. I have not researched countries where PES national programs do not exist, so I cannot really give an informed opinion on what the challenges may be for the design of such programs. I can point out at least the following probable challenges: 1) Generate the additional resources necessary to support a program of this kind, which often requires external support and a reform of fiscal policies; 2) Develop a legislative framework that specifies clearly who is entitled to receive payments for the provision of all or certain ecosystem services; i.e., are those who own the land those who own any carbon offsets potentially sold from that land?; 3) Garner enough support from all government sectors and from civil society; and 4) Establish program rules that fit environmental, social development and political objectives, within a limited budget, simultaneously - if this is possible at all!

6. What lessons from the experiences you have studied could be relevant for the Brazilian government?

RM. There is currently a boom of PES in Brazil: new projects, new laws etc. I feel however that very little evidence (about effects or implications) has been generated so far. The application of policies without evidence is dangerous. We need to invest much more in knowledge generation. This does not hold only for Brazil. In general, the evidence about the effectiveness of PES projects is very scarce, in part because their implementation is relatively recent, but also because only few robust impact evaluation studies have been conducted (concentrated mostly in Costa Rica and Mexico).

EC: I have never worked in Brazil and I do not follow closely what is going on in the country in terms of PES program design and implementation. I follow REDD+ developments and read about PES schemes in the literature I come across and read for other research purposes. Therefore, what I have learned in countries like Mexico or Tanzania may not be relevant at all for Brazil. If I were a policy-maker and had been commissioned with the idea of developing a national PES scheme, the first thing I would do is review the literature from other countries that have national programs in place and talk to their managers, in order to get an accurate view on their programs' early intentions, procedural developments and lessons learned. The Mexican program, for example, has changed its rules almost every year to improve environmental targeting and to address pitfalls in the participants' application processes. The program had scientific and civil society support and advice from early on and this has facilitated learning-by-doing. My second thought, if I were a policy-maker, would be to discuss within government and with key civil society actors what should or should not be the aim of the program, in order to reach a consensus; i.e. should the program maximize social reach at the expense of environmental additionality? What landscapes and forests do we want to target and why? But, more importantly, why do we think that payments - more or less conditional - should be the mechanism used to foster conservation in those areas? Who owns those areas, and what are the underlying tenure dynamics? Will these dynamics of changing property rights affect the delivery and conditionality of payments? Are other conservation instruments perhaps more suitable? A third and final thought would be to think carefully on how we generate funding to support the PES program and to ensure that such funding comes from taxing environmental externalities, and not from raising income taxes or the like. Seemingly, one needs to ensure that payments can be sustained over time and should pay attention to the possible side-effects of inducing conservation through payments, i.e. altering conservation ethics if and where they exist, or inducing social conflict in the distribution of economic incentives.

7. What type of scientific knowledge is necessary to guide policy makers and why? How do available knowledge and techniques influence the decisions related to the implementation of PES?

EC.: We need further information on how effective - in environmental and social terms - PES schemes actually are, and we need to start documenting the effects - if any - of economic incentives on conservation behavior and motivations. In doing this, we need well-established implementation - which we already have for some programs and locations - and the definition of control groups. This information is crucial to provide policy-makers with relevant lessons on the extent to which payments really deliver conservation and what are their additional costs and benefits, in order to identify drivers of and barriers to conservation. It is likely that results differ across programs, locations and countries, since the success of PES schemes in their multiple objectives tends to be related to institutional conditions - including tenure regimes - and spatial dynamics related to land and forest value and rents. To date, my view is that many PES schemes have been developed under the premise that payments would induce conservation (of forest cover) and/or maintain the

provision of ecosystem services, but they have lacked the necessary baselines and control groups to demonstrate whether this has happened over time. This has to do with either lack of resources or misguided PES design, in which success is measured in terms of money disbursement and spatial allocation of resources and less so with controls for environmental effectiveness and social development in scientifically sound ways.

RM: Unfortunately there is a gap between knowledge and policy agendas. The policy agenda advances much faster, surfing the wave of the ecosystem services approach. The knowledge agenda is slower by definition (it takes much more time to generate new meaningful knowledge). This means that, as I said before, most policy design is done without considering the evidence (partly because it is missing).

Can payments make a difference in inducing the changes we need to avoid the destruction or recover valuable ecosystems? We do not know yet for sure, but it is very likely that payments alone will not be a panacea to solve environmental problems. We need to understand what makes land users change their relationship with natural ecosystems and adopt more environmentally friendly practices. I think that inducing sustainable behavioral changes requires a combination of mechanisms, at different policy levels. The simplicity of payments to solve environmental problems is very alluring, but in fact we have already learned that we cannot use simple solutions to solve complex problems.

RECOMMENDED READINGS

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INTERVIEW WITH ROLDAN MURADIAN AND ESTEVE CORBERA

Esteve Corbera Elizalde – Bio and Photo



Photo Credit: Courtesy of Esteve Corbera

Esteve Corbera Elizalde, born in Barcelona in 1976, is a senior research fellow at the Institute of Environmental Sciences and Technology (ICTA) and the Department of Economics and Economic History, Universitat Autònoma de Barcelona. His research focuses on the governance of land-use management options for climate mitigation across scales, including the analysis of large-scale agriculture for biofuels production and of climate-policy and biodiversity conservation related instruments, such as carbon offset projects and Reducing Emissions from Deforestation and Forest Degradation (REDD). He is a member of the Editorial and Advisory Boards of **Global Environmental Change** and the **Journal of Peasant Studies**, and a lead author in the 5th *Assessment Report of the Intergovernmental Panel on Climate Change*. *More information can be found at www.estevecorbera.com.*

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Roldan Muradian – bio and photo



Photo Credit: Courtesy of Roldan Muradian

Roldan Muradian, born in Venezuela in 1973, is a senior researcher at the Center for International Development Issues, Radboud University Nijmegen, The Netherlands. Dr. Muradian has more than 45 international publications in the fields of rural development and environmental governance. One of his recent publications is the book entitled **Governing the Provision of Ecosystem Services**, published by Springer. From July to December 2013, he will be Visiting Professor at the Federal Rural University of Rio de Janeiro. He will be studying cases of PES in the Mata Atlântica biome in Brazil.

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