

AICHI TARGET 3
ON POSITIVE INCENTIVES:

CAN MARKET-BASED INSTRUMENTS MAKE A DIFFERENCE?

RESULTS FROM
THE INVALUABLE PROJECT

THURSDAY, 9 OCTOBER 2014,
PYEONGCHANG (REPUBLIC OF KOREA)



Aichi Biodiversity Target 3: Can market- based instruments make a difference?

Results from the INVALUABLE project

Report of the INVALUABLE Side event at the 12th meeting of the
Conference of the Parties to the Convention on Biological Diversity

This research is part of the INVALUABLE project (Valuations, Markets and Policies for Biodiversity & Ecosystem Services), funded by the ERA-NET BiodivERsA, with the French national funder Agence Nationale de la Recherche (Convention 2011- EBID-003-01), part of the 2011 BiodivERsA call for research proposals.

Cite as: Lapeyre, R., Born, C-H., Chervier, C., Méral, P., Pirard, R., 2014, *Aichi Biodiversity Target 3: Can market-based instruments make a difference? Results from the INVALUABLE project*. Report of the INVALUABLE Side event at the 12th meeting of the Conference of the Parties to the Convention on Biological Diversity, INVALUABLE, IDDRI, Paris.

CONTACTS

Lapeyre, Renaud
renaud.lapeyre@iddri.org

Born, Charles-Hubert
Charles-Hubert.Born@uclouvain.be

Chervier, Colas
colas.chervier@gmail.com

Méral, Philippe
philippe.meral@ird.fr

Pirard, Romain
R.Pirard@cgiar.org

Aichi Biodiversity Target 3: Can market- based instruments make a difference?

Results from the INVALUABLE project

Abstract	4
Keywords	4
1. The INVALUABLE side event: context & rationale	5
2. Clarifying terminology issues with biodiversity financing instruments: markets versus payments?	6
3. The influence of payments for ecosystem services on behaviours and motivations in Cambodia	7
4. Design of payment schemes for conservation and the role of intermediaries in Indonesia	9
5. Integrating relevant knowledge into payment schemes for conservation? Science Policy-Interface approaches	10
6. Discussion with the floor	11
7. Going further: selected INVALUABLE publications	13

Abstract

This report summarizes presentations given and discussions held during the side event organized by the Biodiversa-funded INVALUABLE project at the 12th meeting of the Conference of the Parties to the Convention on Biological Diversity, in Pyeongchang, Republic of Korea, on Thursday 9 October 2014. First the side event analysed the economic and institutional features of innovative financial mechanisms and positive incentives, their emergence and relationship with market characteristics. It then studied the issues of behaviour change (motivation crowding theory) and governance structures (intermediation) by presenting several case studies of payment schemes for ecosystem services in Cambodia and Indonesia. It finally assessed the potential of science-policy interfaces to better integrate broader knowledge within policy decisions and legal frameworks. Overall, building on results from the INVALUABLE research project, this side event proposed policy-relevant recommendations on social and environmental safeguards to be put in place, and governance arrangements to be designed, when implementing innovative financial mechanisms and positive incentives on the ground.

Keywords

Market-based instruments, positive incentives, innovative financial mechanisms, safeguards, governance, behaviour change, science-policy interface.

1. The INVALUABLE side event: context & rationale

Renaud LAPEYRE, research fellow at the Institute for Sustainable Development and International Relations (IDDRI), Paris, and coordinator of the EU-funded INVALUABLE research project (www.invaluable.fr), introduced the side event and its policy-relevance ([click here for PPT presentation](#)).

Meeting objectives set in the Strategic Plan for Biodiversity 2011-2020, including Aichi Biodiversity Targets, will require Parties to incur costs estimated to range between US\$ 150 and US\$ 440 billion per year (report of the High-level Panel on the Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020). In comparison, actual current levels of global funding for biodiversity are estimated at between US\$ 51 and 53 billion annually (The Little Biodiversity Finance Book 2012). Worse, total bilateral biodiversity-related aid commitments (Official Development Assistance-ODA) by members of the OECD amounted USD 5.6 billion in 2012, in slight decline since 2010. In total, a significant funding gap needs to be bridged.

Against this backdrop, COP12 was set to confirm previous decision agreed in Hyderabad in 2012 to double total biodiversity-related international financial resource flows, and to further mobilize domestic financial resources.

Nevertheless, operationalization of such commitments remains uncertain and open to debate. In particular, from which sources should those financial resources come from ? ODA, the private sector, public-private partnerships, or other

sources ? And how should such financial resources be channelled and practically spent on the ground for implementing the Strategic Plan for Biodiversity 2011-2020 ?

To partly answer these questions, the Strategy for Resource Mobilization as well as the Strategic Plan for Biodiversity 2011-2020 both call to explore new and innovative financial mechanisms (IFMs).

The latter, defined by the Leading Group on Innovative Financing for Development, are stable and predictable sources of funding, complementary to ODA, closely linked to the idea of global public goods and aimed at correcting the negative effects of globalisation. According to the Open-ended Working Group on Review of Implementation of the CBD, IFMs consist of:

- Payments for ecosystem services,
- Biodiversity offset mechanisms,
- Environmental fiscal reforms,
- Markets for green products,
- Biodiversity in international development finance,
- Biodiversity in climate change funding.

Operationally, Aichi Biodiversity Target 3 calls Parties to develop and apply positive incentives at the national and local level for the conservation and sustainable use of biodiversity. Here again, operationalization remains uncertain and incentives further need to be precisely designed on the ground. In particular, should these incentives be crafted as economic, non coercive, and voluntary instruments ? Should these instruments be based on market mechanisms and transactions, *i.e.* so-called market-based instruments (MBIs) ? What would be the advantages, benefits, drawbacks and risks associated ?

Such debates and research questions around the use of IFMs and positive incentives for biodiversity conservation lied at the core of the mid-term review of the Strategic Plan for Biodiversity 2011-2020 as well as the Strategy for Resource Mobilization, undertaken during COP 12. In particular, draft decisions to be discussed at COP 12, among others, called to better understand behavioural change as well as the use and performance of economic instruments (COP 12, item 12 on key scientific and technical needs identified), and explore innovative financial mechanisms, for instance payment for ecosystem services schemes (COP 12, item 12 on key potential actions to enhance progress towards implementation of the Strategic Plan and achievement of Aichi Biodiversity targets). In order to respond to a number of legitimate fears from Parties about the potential risks of IFMs (see First and Second Quito dialogue seminars on Scaling up Finance for Biodiversity), voluntary guidelines on safeguards in biodiversity financing mechanisms were also to be discussed (COP 12, item 12).

In this context, **the side event aimed at presenting policy-relevant results from the BiodivERsA EU-funded INVALUABLE project.** ([Click here for the INVALUABLE description leaflet](#))

The side event particularly aimed at tackling issues of :

- **Better defining the nature of IFMs & positive incentives** and their actual economic relationship with market mechanisms
- Further assessing strengths & weaknesses, advantages & risks of these instruments by:
 - **Better explaining drivers and impacts of behaviour change** in response to economic instruments
 - **Thoroughly analysing governance arrangements** associated with these instruments when implemented on the ground
- **Proposing safeguards** for the efficient and equitable use of such mechanisms with economic and market characteristics
- **Better informing policy decisions by investigating preliminary potential science-policy interfaces**

([Click here for the INVALUABLE side event leaflet](#))

2. Clarifying terminology issues with biodiversity financing instruments: markets versus payments?

Philippe MÉRAL, senior researcher at the Institute of Research for Development (IRD), France, and based at the Royal University of Agriculture in Phnom Penh (Cambodia), tackled the critical issue of terminology when talking of IFMs and positive incentives ([click here for PPT presentation](#)). Although economic and market instruments are often referred to when mentioning IFMs and positive incentives in the context of the Strategic Plan and the Strategy for Resource Mobilisation, the INVALUABLE project finds that more than 25% of articles in the scientific literature actually cite MBIs in general terms without detailing their characteristics. Besides, as much as 50 different names are found to designate these MBIs. Such confusion in terminology and characterization prevents researchers and policy-makers to efficiently implement these instruments ; hence one needs to cautiously categorize instruments and policies for biodiversity conservation and distinguish between these. This will eventually allow for better analysis of their respective strengths & weaknesses, advantages & risks.

Building on various useful typologies, the INVALUABLE project proposes to distinguish between 6 categories of market instruments whose economic characteristics are analysed and associated with different degrees and types of markets : direct markets, tradable permits, reverse auctions, coasean-type agreements, regulatory price changes, and voluntary price signals¹.

Adding to confusion, the concept of MBIs is actually ideology driven and loaded. Undertaking an historical analysis, Philippe Méral showed that the concept of MBIs appeared in the 1970s (mainly in US) to show that environmental policy would be more effective if monetary incentives were adopted rather than command & control instruments (standards and laws). Arguments first relied on the superiority of sending price signals to induce changes in behaviours.

1 See Lapeyre, R., Pirard, R., 2013, Payments for environmental services and market-based instruments: next of kin or false friends? *IDDRI Working Paper N°14/13*, IDDRI, Paris.

Later in the 1990's, MBIs were promoted because economists considered decentralized tools were more cost-efficient compared to regulatory price changes (taxes, subsidies); hence MBIs were promoted for their market component, and quickly applied to biodiversity, whose public good nature often leads to market failures. Finally, in the 2000's the concept of ecosystem service emerged to publicly account for the value of biodiversity and enlighten its financial dimensions. MBIs were therefore alleged to allow for better mobilization of private sources.

Such evolution and mixing in the use of justifications for the concepts of MBIs, economic instruments, and price signals also progressively led to confusion as regards their institutional and economic characteristics. In this regard, one of the most significant confusion concerns the mixed (and interchangeable) use of terms of 'payments for ecosystem services' and 'markets for ecosystem services'.

While markets for ecosystem services, the INVALUABLE project strongly contends, are a place or mechanism where buyer(s) and seller(s) exchange a well-defined (homogenous) good or service, and where the price is defined through the confrontation of demand and supply, payments for ecosystem services are *not*. Direct markets, tradable permits, reverse auctions, voluntary price signals can be considered as markets for ecosystem services; on the opposite bilateral agreements (based on Coase's theory) as well as regulatory price changes are rather seen as payments for ecosystem services.

Importantly, there is no reason that respective strengths & weaknesses, as well as advantages & risks for each of those types of instruments be similar and/or comparable. As a result the INVALUABLE project recommends, for each economic instrument or so-called MBI, to **distinguish between 3 types of objectives** : (i) Changing behaviour (all economic instruments, e.g. taxes and subsidies), (ii) Optimizing allocation of resources (prices are defined by economic actors through the confrontation of demand and supply and not by administration, e.g. markets for ecosystem services), and (iii) Financing biodiversity conservation (e.g. pumping private demand).

Overall, analysis by the INVALUABLE project of terminology issues regarding MBIs and their use leads to recommend:

- **Avoiding to mention the broad category of market-based instruments**, which contributes to create confusion and false hopes as well as fears,
- **Talking about economic incentives more generally** as these encompass all economic instruments which aim at changing economic actors' behaviours through monetary incentives,
- **Restricting the use of market-based instruments only to instruments that provide economic incentives based on the actual confrontation of demand and supply** of ecosystem services (e.g. carbon markets, green markets, etc.).

3. The influence of payments for ecosystem services on behaviours and motivations in Cambodia

Colas CHERVIER, from the French Agricultural Research Centre for International Development (CIRAD), aimed at better analysing drivers and impacts of behaviour change in response to economic instruments; he presented a study of two payment schemes for ecosystem services in Cambodia ([click here for PPT presentation](#)).

Theoretically, while progress has been made in evaluating impacts of payments for ecosystem services (PES), in particular their short-term effectiveness in terms of avoided deforestation and increased household income (during project implementation), hidden effects of such schemes are seldom researched. Yet this is crucial, because unintended psychological effects of PES on behavioural change might impact the performance of such economic instrument in the longer-term and jeopardize permanence.

In this regard, the motivation crowding theory intends to analyse actors' motivations when joining PES schemes and their associated responses to economic signals. It distinguishes between *homo economicus* and *homo socialis* type of actors; while the former type is moved by monetary motivations and undertakes conservation actions (stop poaching) if net benefits exceed opportunity costs, the latter one follows intrinsic motivations and chooses actions based on its values, mindsets, feeling of legitimacy and fairness. In this case, environmental performance

Aichi Target 3 on positive incentives: Can market-based instruments make a difference?

of the scheme is uncertain because economic incentives may negatively affect intrinsic motivations and subsequently prove counterproductive and unsustainable: farmers may poach even more during the payment scheme and most certainly after, once payments are stopped.

The INVALUABLE project aims at empirically testing this latter possibility and proposing corresponding important safeguards. To do so the presentation focused on two specific case studies of PES schemes put in place by the NGO Conservation International (CI) in Cambodia: a) conservation agreements signed since 2006 in the Cardamones forest with 23 villages (920 households); b) direct payments made since 2008 to 26 households for turtle nest protection in the northern part of the country.

In the Cardamones (a), 205 participating and 105 non-participating households were interviewed in 2013/2014. Questionned about their motivations to conserve forest, households were divided into 3 groups. First, households with utilitarian motivations conserve forest because it provides services as soil fertility, climate regulation, food and medicine. Second, households with intrinsic motivations conserve forest for the benefit of next generations; third, households with monetary motivations conserve forest because it generates money from ecotourism, wood, meat, etc. Interestingly, households participating in the PES scheme are more likely to display monetary motivations while those households outside the scheme rather display utilitarian and intrinsic motivations. In a word, the signed conservation agreement emphasizes monetary reasons for forest conservation. Further, the payment induces changes in motivations : the higher payment received, the more likely the household would be monetary driven. Finally, in the longer term, when asked about their future decisions if the PES scheme is terminated, monetary motivated people, *i.e.* the motivation group that the scheme emphasizes, intend to break conservation rules more than others. If payments stop, they will more likely participate in illegal trades and illegally open forest plots. In this situation, the payment made in the context of the conservation agreement seems to crowd-out intrinsic and utilitarian motivations towards monetary motivations, which fade away once payments are stopped. This jeopardizes the project's sustainability and permanence, and clearly

calls for designing safeguards within the project in order to tackle such issue.

In the case of payments for turtle nest protection in Northern Cambodia (b), people on the contrary report they will conserve more turtle nests after payments stop as compared with before the project started. Explaining this crowding-in effect, is the fact that the payment scheme increases awareness about conservation importance of turtles (sensitization). Interestingly also, the increase in conservation attitudes, thanks to the payment, is higher for households with higher education, whose monetary reasons have strongly motivated participation in the scheme, and whose relatives have not influenced the choice to enroll. In this context, using economic incentives for these households makes clear sense so as to trigger positive behavioural change towards conservation.

Against this backdrop, the INVALUABLE project strongly recommends NGOs implementing PES to take issues of behavioural change into account when designing their scheme. Economic incentives and signals are not neutral and thus the **ex-ante analysis of motivations and behaviours in recipient communities is a critical condition for success in the short as well as in the longer-term (sustainability)**. A number of transversal factors might help anticipating adverse effects associated with motivations. These include personal characteristics and preexisting motivations. Based on these, one can better target farmers to be enrolled in the PES scheme. Besides, payment is not only about sending a signal to affect costs and benefits. The nature of the message conveyed by the payment and the way it is conveyed, *i.e.* fairness, participation, information sharing, also importantly matters.

Therefore, **putting social safeguards in place in order to ensure pro-conservation motivations and efficient targeting as well as setting the scheme structure right are two requisites for PES implementation**. The latter element is associated with the role of governance systems. Next presentation tackled this issue.

4. Design of payment schemes for conservation and the role of intermediaries in Indonesia

Romain PIRARD, senior scientist with the Center for International Forestry Research (CIFOR), Bogor, analysed the role of governance structures in explaining the potential performance of economic instruments. To this aim, he presented two cases of payment schemes for watershed services in Indonesia ([click here for PPT presentation](#)).

In the first one, on the Lombok island, restoration of recharging area in the Rinjani mountain and upstream community strengthening programs were done successively through a) a voluntary payment from water consumers to the Bestari community fund, an intermediary paying for restoration projects; b) the payment of a regional tax added on the price of water in the water bill and channelled to IMP, the multi-stakeholder agency who funded farmers' groups for reforestation ; and 3) the internalization of restoration costs directly by PDAM, the regional public water supply company.

In the second case, on the Java Island, PT Krakatau Tirta Industry (KTI), a water collecting private company, signed a contract agreement with the multi-Stakeholder Cidanau Catchment Communication Forum (FKDC), an intermediary, so as to pay a monetary amount per hectare reforested and conserved. In turn, the intermediary signed contracts with upstream farmer groups to ensure reforestation activities, with the technical support of an NGO, Rekonvasi Bhumi.

In both cases, the governance structure, dominated by a multi-stakeholder agency as an intermediary, can explain the extent to which the economic signal is efficient, or not, in modifying behaviours on the ground.

In this regard, the INVALUABLE project questions the role of intermediary agencies as efficient ways to implement incentivizing schemes and reduce transaction costs in those two cases. Departing from the ideal-type of economically optimal bilateral agreements, these PES are actually reappropriated locally and become complex and expensive development-like projects.

On the one hand, the scheme effectiveness is affected by political purposes and multi-actor games; on the other, intermediary agencies

do not provide significant guarantees of equal power in decision making, *i.e.* local farmers, even if service providers, might be disadvantaged and marginalised.

First, as compared with direct payment schemes for ecosystem services (direct markets between sellers and buyers), PES with intermediary agencies have led in both case studies to an inefficient targeting of farmers. Whereas hydrological and economic valuation studies were not used to uncover ecological relationships and agree on a well-defined watershed service (e.g. water quantity or quality), social connections between the intermediary and farmer group leaders were actually the most decisive factor when choosing service providers. Selection of lands to be enrolled was undertaken based on practical and social reasons. As a result, environmental additionality proved to be limited.

Second, governance in both schemes does not allow farmers to fully understand economic signals sent and respond to it accordingly (e.g. forest conservation). With the intermediary agency and associated NGOs holding most decision powers, significant problems of information sharing appear. Rules are only partially known by farmers and contractual aspects of payments remain misunderstood. *In fine*, farmers regard payments as unpredictable (and arbitrary) handouts rather than economic incentives triggering behaviour change. Besides, procedural equity is limited and farmers feel a lack of participation and ownership. In the longer-term, this jeopardizes capacity building, project buy-in, and finally sustainability.

In this context, the INVALUABLE project recommends to **strongly emphasize on governance design when implementing a PES scheme on the ground**. This is an important condition for successful performance of such economic instrument. The governance structure should be simple, as direct as possible, and should ensure that farmers are provided with regular, understandable and transparent information about the contract and payment. Farmers should participate in contractual design and on-going management of the agreement so as to **allow for significant capacity-building and procedural equity**. This might increase start-up as well as on-going costs, but over time this will decrease inefficiencies and increase sustainability and permanence. **While mandatory approaches**

could prove valid to apply these recommendations, innovative approaches should not to be dismissed.

5. Integrating relevant knowledge into payment schemes for conservation? Science Policy-Interface approaches

In this last presentation, Charles-Hubert BORN, Professor at the Catholic University of Louvain (UCL), tackled the delicate issue of knowledge integration in MBIs design and implementation, especially from the science-policy interface (SPI) perspective ([click here for PPT presentation](#)). To set up and implement efficient MBIs for biodiversity conservation is challenging, because biodiversity conservation is a very complex, cross-sectoral issue, involving multiple scales and drivers. Conservation strategies are associated with multiple knowledge systems and values, in a context of uncertainty. As values are subjective, science alone cannot inform adequately decision-making about biodiversity. Hence the challenge is to link best available science – economics, ecology and social sciences – but also a broader knowledge and value base, including local community aspirations and values, with policy responses. This is what the INVALUABLE project also intends to analyse.

The presentation first explored the implications of economic approaches to biodiversity conservation in relation to SPI. Results show that economic valuations for biodiversity and ecosystem services management might show important weaknesses from a SPI perspective. There are at least 3 reasons for that. First, limitations can be found in the language in which economic approaches are framed and the values and ideologies underlying them. Use of economic terminology and concepts – like natural capital, service flow, etc. – might not be adapted in all situations. When they are not carefully adapted, MBIs like PES may reflect a perception and an understanding of relations between man and nature that are at odds with the socio-cultural context in which they are implemented. They even could undermine local knowledge

and value systems, as illustrated by the Cambodian case above. Second, it may foster a narrow perspective to describe ecological systems and their interactions with human populations. The stock-flow model used by the Millenium Ecosystem Assessment to describe biosphere could for instance blur alternative ways of thinking socio-ecological systems. Third is the economic valuation's incapacity to respond adequately to the inherent uncertainty in socio-ecological systems.

In fine, the INVALUABLE project recommends that **MBI design and implementation be based on a broader knowledge and value base**, integrating not only economic valuations of biodiversity but also thorough biophysical ecosystem assessments (ecological evaluations), and the multiple sets of languages, values and knowledge systems at the local levels (so-called social evaluations). There is a **strong need for pluralistic approaches to conservation that bring together hard sciences and alternative knowledge systems**, acknowledge the diversity of value systems involved in biodiversity and ecosystem management, connect and integrate knowledge across relevant scales, and acknowledge and account for uncertainty.

A second step in the presentation focused on the potential and limits of decision-support systems (DSS) to enhance knowledge integration in MBIs design and implementation through participatory processes. It particularly looked at **a specific tool, the Quickscan software**. The latter is a spatially-explicit software that brings together demographic, environmental and other data which can be visualised across scales on maps and tables. It is meant to offer a quick support to decision-makers in the selection of alternative policy options through visual and numerical information on the effects policy options may have over time and space. Quickscan can be used during participatory group sessions where a few participants are engaged in an exchange of knowledge and experience, while discussing policy alternatives against selected criteria. It may help, for instance, economists to better understand ecological impacts of a PES on biodiversity, and, conversely, help ecologists to get a better insight into monetary and economical implications of that scheme. But the INVALUABLE project suggests that these systems are developed with little, or no stakehold-

er involvement, which hinders their usefulness, relevance, legitimacy and up-take by potential users, e.g. policy-makers.

Finally, Charles-Hubert Born brought insight on legal aspects of knowledge integration into MBI. Looking at a number of both PES and biodiversity offset projects in different case studies within the INVALUABLE project, the latter suggests that **law may play the crucial role of social and environmental safeguard by fostering knowledge integration in public-driven MBIs**. This will be done by a) the definition of clear conservation objectives and obligations; b) the **use of planning instruments to frame PES mechanisms**, like the Rural Development Programmes, which frame the PES and offset schemes in the Common Agricultural Policy or the Recovery Plans for endangered species in Conservation Banking in USA; c) the **creation of SPI institutions at the local level**, like network bridging organizations in agro-environmental measures in Wallonia, which foster cooperation and social learning among farmers; d) the creation of strategic environmental assessment procedures to inform policy-makers on the ecological impact of their policies on biodiversity, as this is especially the case in Europe with the Strategic Environmental Assessment Directive; and finally e) the **obligation to open policy and regulation-making processes to public participation, expert and civil society consultation**.

6. Discussion with the floor

Presentations and recommendations brought forward by the INVALUABLE project fuelled a number of questions and comments from the floor. Tackling the **issue of value and behaviour change**, the CBD Alliance coordinator contended that PES schemes are actually a tool loaded with western value and could potentially lead to behavioural change everywhere (value leakages even in places where there are no PES yet). Hence no PES should be implemented, as has been decided in Bolivia, or at least, PES should only be designed in communities that have already been westernized, as this would better work there. In response, the INVALUABLE project shows that while one of the two Cambodian case studies gives some evidence of such

fears of harmful behaviour change, in the second case study the possibility of crowding-in effects towards pro-conservation attitudes induced by payments shows that the use of PES schemes should not be ruled out. Rather, **social and environmental safeguards are recommended by a) thoroughly analysing ex-ante pre-existing behaviours within targeted communities so as to ensure no harmful behaviour change will occur ; and b) designing governance structures which allow for local farmers' participation, ownership and capacity-building**.


Seeking clarification on **conditions for behaviour change**, a University of Vienna Professor wondered why in Cambodia crowding-out might be induced by payment in one PES scheme while in the other one on the opposite crowding-in was the result of economic incentives. The INVALUABLE project contends that **the way governance structures are designed and thus the way the economic message is sent for each specific PES might explain this important difference**. This calls for further research before implementing PES and for designing schemes which are well understood and endorsed by all farmers, and from the start take their motivations into account in a collaborative way (negotiating the agreement). In this context, **thinking about awareness raising activities** could sometimes prove more efficient than building complex economic incentives' schemes.

Looking deeper into the **governance issue**, both a University of Yamanashi Professor and a IUNCBD University Network Professor called for further analysing respectively the problem of local conflicts when implementing PES, and of the role of NGOs in PES schemes. Regarding the latter, the example of Madagascar was mentioned, where after 10 years of operation an intermediary NGO in a PES was still regarded by farmers as the «Company». In this context, as is shown by the INVALUABLE project in the case of Indonesia, the project, initially designed as an ideally efficient economic instrument, is actually reappropriated locally and finally resembles just another NGO-led rural development programme. But **far from proving that PES should be ruled out as an environmental policy instrument, this rather shows that clear institutional and economic conditions should be put in place** in this case so as to ensure the good performance of this type of economic incentives. Such posi-



Aichi Target 3 on positive incentives: Can market-based instruments make a difference?

tion was reiterated by the former Nagoya protocol negotiator on behalf of the African group, who finally stated that policy-makers should not scrap markets out right away. **Markets can for instance be good incentives for wildlife utilization if rights are devolved to local populations.**

This can bring people to realize the value of wildlife and get proud of their conservation efforts. On the contrary, he contended, strict values against markets might decrease demand for biodiversity products, bring prices down, and in turn prevent efficient conservation. 

7. Going further: selected INVALUABLE publications

[INVALUABLE Project Newsletter 1, February 2013](#)

[INVALUABLE Project Newsletter 2, November 2013](#)

[INVALUABLE Project Newsletter 3, April 2014](#)

[INVALUABLE Project Newsletter 4, September 2014](#)

Boisvert, V., Méral, P., Froger, G., 2013, Market-Based Instruments for Ecosystem Services: Institutional Innovation or Renovation? *Society & Natural Resources: An International Journal* 26 (10): 1122-1136.

Hrabanski, M., Bidaud, C., Le Coq, J-F., Méral, P., 2013, Environmental NGOs, policy entrepreneurs of market-based instruments for ecosystem services? A comparison of Costa Rica, Madagascar and France, *Forest Policy and Economics* 37 : 124-132

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

Lapeyre, R. and R. Pirard, 2013, Payments for environmental services and market-based instruments: next of kin or false friends? *IDDRI Working Paper N°14/13*, Institute for Sustainable Development and International Relations, Paris.

Legrand, T., Froger, G., Le Coq, J-F., 2013, Institutional performance of Payments for Environmental Services: An analysis of the Costa Rican Program, *Forest Policy and Economics* 37 : 115-123

Muradian, R., 2013, Payments for Ecosystem Services as Incentives for Collective Action, *Society & Natural Resources: An International Journal*, 26:10, 1155-1169

Muradian, R., 2014, Payments for marine and coastal ecosystem services and the governance of common pool natural resources, in Mohammed, E.Y. (Ed.) *Economic Incentives for Marine and Coastal Conservation Prospects, challenges and policy implications*, London, Earthscan-Routledge, pp. 53-68.

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

Pirard, R., de Buren, G., Lapeyre R., 2014, Do PES Improve the Governance of Forest Restoration? *For-ests* 5(3): 404-424

Pirard, R., Lapeyre R., 2014, *Classifying market-based instruments for ecosystem services: A guide to the literature jungle*, *Ecosystem Services* 9: 106-114

THE INVALUABLE PROJECT

The overall objective of the INVALUABLE project is to clarify the potential of market-based instruments (MBIs) to better integrate biodiversity & ecosystem services (B&ES) into society, based on appropriate institutional arrangements for relevant public policies and an improved utilization of economic valuation approaches. To do so, three main interconnected issues are analysed through an interdisciplinary research framework. First, the project aims at elaborating a comprehensive theoretical framework in order to define and characterize MBIs for the management of B&ES, and conduct an analysis of the notion of market-based approaches to B&ES with a focus on institutions, discourses, epistemic communities and social networks (work package 1). Second, project researchers seek to assess impacts from some of these MBIs; in particular, they investigate advantages and risks from biodiversity offsets (BO) and payments for ecosystem services (PES), drawing comparative lessons across several case studies in France (BO), Germany and Belgium (BO and agro-environmental schemes), but also Indonesia, Cambodia, Brazil, Ecuador, Mexico, Guatemala and Costa Rica (all PES) (work package 2). Finally, the project builds on existing Science Policy Interface (SPI) and decision support system (DSS) tools, as well as legal analysis so as to formulate relevant options to better integrate scientific results and policy in the field of MBIs for B&ES (work package 3).

The INVALUABLE Project is a network of 9 european partners, coordinated by IDDRI : CIRAD (Centre de coopération International en Recherche Agronomique pour le Développement, France), IRD (Institut de recherche pour le développement, France), Radboud University in Nijmegen (Netherlands), IFP (Institute of Forest and Environmental Policy, Germany), Université Catholique de Louvain (Belgium), ICTA at the Autonomous University of Barcelona (Institut de Ciència i Tecnologia Ambientals, Spain), IEEP (Institute for European Environmental Policy, UK), Wagenigen University (Netherlands), and IDDRI (Institut du développement durable et des relations internationales).

The INVALUABLE Project, via IDDRI, is a member of the Conservation Finance Alliance (CFA)