Developing Markets for Watershed Protection Services and Improved Livelihoods

Implementation Phase
Findings Discussion Workshop Report

7th December 2005
London

International Institute for
Environment and Development

Summary:

This report documents the discussions held at a workshop to discuss the interim lessons learned from the IIED project "Developing Markets for Watershed Protection Services and Improved Livelihoods".

More details of the lessons learned will soon be available from IIED's website in a document entitled 'Fair deals for watershed services: Learning from new attempts to develop payments for watershed services that benefit livelihoods'. Other documents, links to the websites of project partners and selected publications are available on the project website **http://www.iied.org/NR/forestry/projects/water.html**

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1. Introduction and background to the workshop

In October 2001, IIED embarked on a project to explore the potential of market-based approaches to maintain watershed services that support local livelihoods. Diagnostic reviews of markets for watershed services were carried out in the Caribbean (Grenada, Jamaica, St. Lucia, Trinidad), India, Indonesia and South Africa[1]. These diagnostic studies paved the way for a three-year action-learning project "Developing Markets for Watershed Protection Services and Improved Livelihoods." The purpose of the project is to increase understanding of the potential role of markets mechanisms in promoting the provision of watershed services for improving livelihoods in developing countries. The project is financed by the UK Government Department for International Development (DFID).

IIED is enabling country-based partners to pursue programmes at field sites in India, Indonesia, South Africa and the Caribbean. At these sites, country partners and IIED are taking an 'action-learning approach' to develop schemes for payments for watershed services (PWS). In Bolivia and China, project partners are assessing the potential for PWS through a series of diagnostic studies. Within each country, learning groups have been set up to allow stakeholders to compare and disseminate lessons to policy makers. At an international level, country partners, together with IIED have compared experiences and extracted lessons at annual project advisory group meetings. The first of these was an inception workshop held in January 2004, which was attended by external interested stakeholders also (see Implementation Phase Planning Workshop Report, 28-30 January 2004, London). The analysis and documentation presented at the second workshop (South Africa, October 2005) fed into the draft discussion paper 'Fair deals for watershed services: Learning from new attempts to develop payments for watershed services that benefit livelihoods' (December 2005, IIED) which provided a basis for information dissemination at the findings discussion workshop.

This report summarises the discussions held at the findings discussion workshop.

[1] Diagnostic reports available at www.iied.org/NR/forestry/research/projects/water

2. Summary of workshop discussions

The material presented below (2.1-2.5) is a summary of discussions that followed the workshop presentations. This material has been grouped together under question headings to improve presentation and does not necessarily reflect the chronology of discussions. 2.1-2.3 is drawn from discussions following the morning presentations and 2.4-2.5 covers the major discussion following the afternoon presentations by Rob Hope and Ina Porras.

2.1 Facilitating and maintaining PWS initiatives

- ***How precise does the hydrological information need to be?***

Hydrological assessments are important. There is lots of existing literature on direction/magnitude impact but it is only fair to point out the limitations of current knowledge to downstream consumers before asking them to make payments. Local perceptions of change are important and should be a starting point from which to consider any intervention.

The limitations of existing data cannot easily be solved. In many cases, the evidence simply does not exist and can be very costly to generate – in some cases (particularly in the Caribbean) this cost is likely to outweigh income generated by the scheme.

The relatively short time frame of the project adds to the difficulties of data collection and frustrates the problem of not being able to reach firm conclusions during the project. It was noted that the project team should be cautious about casting concrete conclusions and nuance all findings accordingly.

At sites where data is limited but PWS is under consideration, a check-list/flow chart might be a practical solution to assess whether a PWS scheme is appropriate. It was suggested that lessons could possibly be learned from other areas of economic activity such as insurance – where consumers make payments without a great deal of precision about the goods and services they will receive.

A rough and ready hydrological assessment of some form is certainly necessary, but whilst recognising that this may not produce 100% accurate results. It was noted that ICRAF is close to finalising a report on hydrological assessment but this seems to be heavily based on a triangulation of potentially subjective perceptions.

- ***How important is trust in a PWS initiative?***

Trust is a crucial factor which has to be maintained but is hard to develop and easy to lose. In the Bolivian site, the lack of trust by downstream users was perceived as a major constraint to setting up a working PWS scheme. It was therefore decided to use donor funds for a limited period of time to make initial payments to upstream stakeholders and to demonstrate the potential of the mechanism. Today, approximately 50% of payments are made by local municipalities with a view to the withdrawal of all donor funding to the scheme three years from now.

- ***How important are ownership rights over water in a PWS initiative?***

It is apparent that different countries hold very different views on water ownership and rights. In South Africa, legislation creates opportunities for payments but due to complexities over water rights, it does not necessarily create a positive environment for PWS schemes. In the Ge-Selati, for example, additional water might be generated by commercial farmers paying for the removal of

invasive species in the headwaters. This does not imply, however, that farmers would be granted a prior right to use this water but would have to enter negotiations with the State.

- ***What is the role of the State in PWS?***

There are differing experiences and opinions of state involvement in PWS schemes. In the Caribbean, for example, it is impossible to avoid government involvement and politics due to the small-island structure. In the Philippines, on the other hand, neither buyers nor sellers have been happy with the government's involvement as intermediaries. In other countries, such as Indonesia, the role of the government is somewhat blurred due to its strong links with parastatals.

Some observers view the government as a central figure in efforts to scale up PWS schemes. Others, however, consider that it may still be too early to scale up projects that should continue to engage at a more local level with civil society and NGOs.

There are some questions over the efficiency and delivery of state-run schemes, which may be vulnerable to corruption and less inclined to consider local variation. There are also likely to be side objectives factored in (e.g. subsidies) to make the schemes politically feasible. But at the same time it is important to consider how we analyse government efficiency.

- ***What is the difference between a PWS scheme and the polluter pays principle?***

Making payments to upstream land users effectively reverses the polluter pays principle. But in the cases under consideration, where the polluter does not pay or is poor it may be more appropriate to consider the context of the situation rather than the principle. Furthermore, the 'polluter pays principle' is much easier to apply to point source pollution such as the discharge of waste from a factory. Non-point pollution such as increased nitrates in water supplies at landscape scale is almost impossible to solve using by applying this principle and is one of the reasons why payments for environmental services (PES) solutions have attracted so much attention.

- ***What is the role of adaptive management in PWS?***

Adaptive management sounds very persuasive but questions remain on how much flexibility there really is and whether examples can be highlighted of buyers gaining where they otherwise would not.

2.2 Payment mechanisms and costs

- ***Are PWS initiatives efficient?***

It could be argued that if PWS schemes predominantly produce indirect benefits (including increased social capital), achieved through the processes involved in bringing stakeholders together, there could be more efficient ways of achieving the same result. The added value of PWS schemes however, is that they encourage people to think about watershed management in a different way.

- ***How should payments be made?***

Decisions on the currency of payment should take factors of efficiency, transaction costs and local desirability into account. In Bolivia, beehives were selected as an appropriate currency following negotiation between upstream and downstream stakeholders on the basis that cash payments could have led to suspicion that upstream sellers would want to buy the land. Beehives are considered a particularly appropriate development tool, as farmers are reminded of the project and

the importance of protecting the forest to sustain their livelihoods on their regular trips to collect honey.

- ***How important are transaction costs?***

It was suggested that transaction costs should not be considered as absolute amounts but in relation to the value of the payment and other variables. Start-up costs (which may be covered by donors), monitoring activities and recurring costs should also be taken into account. Transaction costs should be considered from the viewpoint of both buyers and sellers – the focus has thus far tended to fall on the former but these costs may also be of significance for the latter.

In the Brantas watershed in Bolivia, payments made in the first year of the scheme were tied to a non-legally binding contract on the basis that land users who did not comply with contract obligations would be excluded from the scheme the following year. (As land users here do not have legal tenure, it is not possible to apply legally-binding contracts.) Due to the high transaction costs of one-year contracts however, a more flexible approach is now being taken with five to ten year contracts also possible. This has significantly reduced transaction costs but at the same time has also reduced conditionality and may represent a greater risk of non-compliance with contract terms.

- ***How long should payments be made for?***

In judging whether short-term or continuous payment mechanisms are most appropriate, it is necessary to consider, and in most cases match the duration of the service provided. If the desired outcome is to achieve a continuous benefit, there should ideally be a mechanism for continuous payment. In situations where it may not be realistic to rely on continuous payment, it may be better to build up a fund that can be drawn from in the future. In some instances (for example, the GEF project in Colombia), short-term payments may be the best option as they potentially facilitate a quicker resolution of the problem.

2.3 Project methodology

- ***What is the difference between the action-learning and diagnostic sites?***

The action-learning sites are identifiable as sites where attempts are being made to facilitate payment mechanisms. The diagnostic sites on the other hand are review based. There has been some cross over between these two types of site with Los Negros – a diagnostic site in Bolivia, also proving a very useful learning opportunity.

The action-learning sites were selected for different reasons in different countries. In South Africa six sites were initially identified and reviewed against a set of criteria drawn out in feasibility studies. Site selection was purposely biased towards sites that had potential for implementation of mechanisms and interesting learning opportunities. Practical issues were also taken into account such as feasibility, timescale, local momentum and availability of suitable partner organisations.

2.4 Global review of PWS cases by IIED

IIED's global review of PWS arrangements builds on the review conducted for 'Silver Bullet or Fool's Gold' (Landell-Mills and Porras, 2002). The review is following up many of the cases identified for Silver Bullet as well as new cases that have been developed since or were not identified in 2001. Information on the cases are being categorised and developed into a database. Both the database and analysis of the cases will be available online in 2006.

- ***Why are there so many more cases in Latin America than Africa?***

There is far more activity in Latin America and less in Africa due to greater capacity and donor interest. There is also more individual and secure tenure of land in Latin America than in Africa or Asia.

- ***Is bundling of services and benefits justified?***

Bundling of services and benefits is advocated because PWS alone will not provide sufficient benefits. The danger is that this will re-develop into integrated natural resource management.

- ***Can PWS be used to coerce governments?***

There is a small possibility that the development of PWS type arrangements could lead to some forest owners and/or stewards applying coercive pressure on governments. Clearly these would be considered as perverse outcomes to the development of PWS arrangements. Generally, land use changes and the processes behind those changes are much more complex than a typical 'blackmail scenario' which really has only two outcomes.

A common perception is that PWS is an alternative to regulation. It is important to note that successful PWS schemes have both a mix of both incentives and regulation. A good example is Pimampiro in Ecuador. Here a PWS scheme was designed to enable locals to protect the forest and prevent others from coming in to deforest. Pimampiro has achieved a reverse in undesirable changes to land use and the scheme has now been working for five years.

- ***How have cases for the PWS global database been defined?***

The global case base is useful. There is a need to take stock and define/re-define certain terms and concepts. Subsidies have been paid for decades with links to environmental services. These subsidies do not constitute a PES scheme. If a broad definition of PWS is applied, there is a real danger that the number of schemes described as such will be inflated. The application of a strict definition of PWS that focuses on contingency will help focus people on the core elements of PWS rather than on market based incentives per se.

2.5 Developing a Negotiation Support System (NSS) for Bhopal, India

- **What progress has been made in developing a PWS initiative in Bhopal?**

The Bhoj project is in a pre-negotiation phase. It is currently looking at the treatment costs of lake water compared to treating and transporting other sources from further away.

- ***What is the cumulative impact of land-use change in India?***

The cumulative effects of land-use change in India are having a substantial impact on downstream users. Over the past 30 years in India, a number of relatively small interventions (intensification of agriculture, field levelling, watershed initiatives) have had an enormous cumulative impact leading, for example, to the virtual closure of the Krishna basin.

3. Next steps for the project

IIED motivation to implement the current project was to initiate real-time lesson learning of the processes associated with developing payments for watershed services. The draft discussion paper 'Fair deals for watershed services: Learning from new attempts to develop payments for watershed services that benefit livelihoods' identifies approximately 30 lessons. Over the next 9-12 months, the project will continue to build on the lessons being learned at project sites and will prioritise the critical lessons that have been learned. The project will update its communication to ensure that critical lessons are effectively disseminated to policy makers in developing countries.

One of the challenges facing the PWS community is that, as a young or relatively recent scientific field, it is characterised by a high degree of uncertainty both in the identification of the core problem and analyses of the impacts. IIED's current work is effectively still only at a pilot level (as in Indonesia for example). It will therefore be necessary to decide whether there is sufficient information at the end of the project to allow wider application (scaling out) of these tools or whether more work will be required.

Appendix 1. Workshop participants

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Appendix 2. Workshop programme

Time	Topic	Presenter	Moderator
09.00 to 09.15	Introduction	James Mayers (IIED)	James Mayers
09.15 to 09.30	Project overview	Ivan Bond (IIED)	
09.30 to 10.00	1. Payments and payment mechanisms	Ivan Bond (IIED)	
10.00 to 10.30	2. Livelihoods	Nigel Asquith (Natura)	
10.30 to 11.00	Tea		
11.00 to 11.30	3. Hydrology and environment	Chetan Agarwal (Winrock International India)	
11.30 to 12.00	4. Role of Government	Bhaskar Vira (University of Cambridge)	
12.00 to 12.30	5. Ways of working and transaction costs	Sarah McIntosh (Caribben Natural Resources Institute)	
12.30 to 14.00	Lunch		
14.00 to 14.45	Review of selected cases and spatial database	Ina Porras / Nanete Neves (IIED)	Bhaskar Vira
14.45 to 15.30	Developing a negotiation support system for Bhopal	Rob Hope (University of Newcastle), Chetan Agarwal and Ina Porras	
15.30 to 15.45	Tea		
15.45 to 17.00	Facilitated discussion		