



PRIVATE SECTOR DEMAND IN MARKETS FOR ECOSYSTEM SERVICES: PRELIMINARY FINDINGS¹

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1. CONTEXT & OBJECTIVES

Private sector buyers of ecosystem services represent a critical opportunity for biodiversity conservation, as the potential scale of private sector payments dwarfs current and potential payments from governments and civil society. But private buyers are also the most challenging “player” of potential market actors. The market for ecosystem services is so embryonic that most observers do not yet fully understand where the best opportunities lie, nor the full extent of market limitations. At the same time, because buyers are not monolithic, each industry and/or type of ecosystem service will vary in terms of barriers and motivations for its market actors, and it will be critical to further analyze the differences in demand and motivations for PES in specific sectors. Given this set of complexities, this scoping exercise aims to provide a preliminary assessment of the buyers’ side of the market.

The main objectives of this scoping exercise are:

1. Document the current scale and nature of existing private sector PES in water, biodiversity, carbon and landscape beauty
2. Analyze private sector motivations, opportunities and barriers to scale-up private investments in these emerging markets, and knowledge gaps that remain

2. METHODOLOGY

The information for this report has been primarily gathered through the following activities:

- A literature survey of available scientific and non-scientific articles and reports about the subject of private PES
- Twenty four experts and informants were consulted to (1) identify new initiatives whereby private parties pay for ecosystem services; (2) contact representatives of companies that have experience with PES; and (3) gather new information about the subject of private PES.
- Fourteen interviews were conducted with representatives from companies that have experience with PES. The interview survey covered a broad range of different types of sectors. In addition, the type of ecosystem services that these companies paid for differed considerably.

The literature survey compiled as many cases as could be found on private parties paying for ecosystem services. The work done by Natasha Landell-Mills and Ina Porras (2002), Kerry ten Kate, Joshua Bishop, and Ricardo Bayon (2004), and the case studies and resources of the Katoomba Group’s Ecosystem Marketplace (www.ecosystemmarketplace.com) functioned as important foundations for this survey.

¹ *Adapted from the full report submitted to the UNDP-GEF project: “Institutionalizing Payments for Ecosystem Services,” Supplement IV. Mobilizing Private Sector Buyers of Ecosystem Service.*

The study recorded more than 100 *cases* of private PES and more than 1100 *transactions* of private PES² (Figure 1). Geographically, most documented current initiatives were South America – 65 of the little more than 100 cases reviewed. Asia accounted for 25 cases. Few cases were identified in Europe and Africa. Most of the ecosystem service deals involved *international* level transactions, especially in the carbon market. Most deals for water and related services, however, took place mostly at the *local* level.

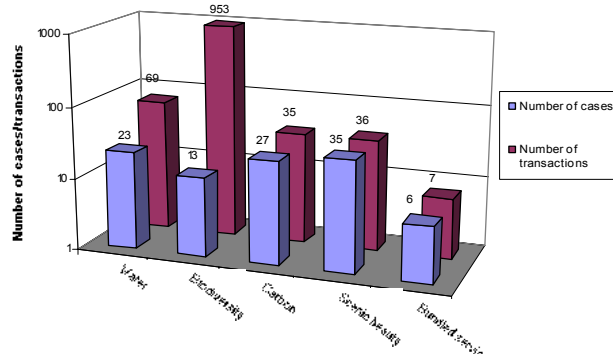


Figure 1: Private sector demand for ecosystem services⁵

The interview survey was mainly used to learn about people’s view towards PES and private sector involvement in it and to understand corporate motivations for becoming involved in these emerging markets. From the findings of the interview sessions, the literature survey, and the extensive knowledge and experience of the authors, a number of opportunities and barriers were identified that can either further grow or hinder investments in these markets.

3. PRELIMINARY ASSESSMENT OF BUYER MOTIVATIONS

The report assumes that the private sector will only start investing in the conservation, or sustainable use, of ecosystem services under the following circumstances:

1. They are forced to by regulation or the pending threat of regulation in the (near) future.
2. Payments deliver a return on their investment (i.e. a business benefit).
3. Payments are made for charity or philanthropic reasons (i.e. donations).

The pressure to start paying for ecosystem services decreases, of course, from “regulation or threat of regulation,” to “business benefits,” to eventually “philanthropy and charity.” This project was therefore aimed primarily at finding initiatives where a clear business case for paying for ecosystem services is present from the buyers’ point of view. Table 1 below provides an overview of private sector motivations.

² The distinction between the two can be explained by the following example. Both wetland mitigation banking (“water”) as well as conservation banking (“biodiversity”) in the USA account for a considerable market. As an initiative in itself, they are both represented as 1 *case*. However, the number of *transactions* that take place is far larger; wetland mitigation banking (*water* market) accounts for about 47 transactions and conservation banking (*biodiversity* market) about 930.

Table 1: Motivations by the private sector to engage in markets for ecosystem services

<i>Regulatory</i>	<i>Voluntary</i>	
Regulatory driven	Business driven	Non-business related
<p>1. Regulatory compliance:</p> <ul style="list-style-type: none"> • Law • Cap-and-trade regulatory system • International conventions such as the CBD and Ramsar 	<p>1. Business opportunity</p> <ul style="list-style-type: none"> • Carbon- and biodiversity offsets (especially by financial intermediaries, such as conservation banks) • Reduce environmental risk (e.g. insurance industry, eco-efficiency) • Eco-enterprise operations <p>2. Secure, sustain or reduce costs of key natural resource inputs required for business operations</p> <ul style="list-style-type: none"> • Uncontaminated water needed for bottling plant • “Charismatic” macro fauna needed for eco-tourism operation • Genetic resources needed for pharmaceutical company (i.e. bioprospecting) • Conservation of watershed to secure water flow regulation 	<ul style="list-style-type: none"> • Philanthropy • Charity
	<p>3. Securing license to operate by managing potentially difficult relationships</p> <ul style="list-style-type: none"> • <i>Regulatory good will</i>: better relations with regulators, supporting formal license to operate in the future. Besides PES other instruments companies can comply with (amongst others) concern (1) Equator principles; (2) ISO 14001 guidelines; (3) International conventions such as CBD or Ramsar Convention • Better relations with local communities, supporting informal license to operate, avoiding disruption/losses from protests 	
	<p>4. Enhance or maintain the financial value of land, forest or other assets belonging to the company</p>	
	<p>5. Reputational risk management by enabling strong “green” branding</p> <ul style="list-style-type: none"> • Public relations (PR) • Differentiation in the market: Use of marketing to influence consumers, investors or others committed to “green” products 	
	<p>6. Improved staff pride and morale, enhanced recruitment and retention of superior staff</p>	
	<p>7. Reflect/consistent with broader business values of the corporation (e.g. commitment of CEO to “good husbandry”)</p>	

The main purpose of the interview survey was to grasp corporate motivations for PES as well as to understand the link with the business case. The key conclusions drawn are:

- All the corporations and other private entities interviewed have some sort of business benefit and interest in paying for a certain ecosystem service.
- The link between PES and business benefits is reasonably high, which is due in most cases to:
 - Government regulation (e.g. the carbon market)
 - The deteriorating quality and availability of natural resources important to the business (e.g. water quality and availability, presence of “charismatic” macro fauna and the deteriorating quality of the scenic beauty of a landscape that holds commercial value, etc).
- The corporations and other private entities that are currently involved in these types of markets are clearly front-runners in their sectors. Although a considerable number of cases concern isolated, self-organized private deals, certain sectors are particularly well-represented:
 - Companies in the oil/petrochemical and energy sector wishing to offset their carbon emissions, such as British Petroleum (BP) and American Electric Power (AEP)
 - Tourism companies that pay to secure the scenic beauty of landscapes they determine on for income generation, such as the Meliá Conchal hotel chain in Costa Rica
 - Municipal and regional utilities, especially in South America, that wish to secure and/or improve water quality and regulation and therefore pay upstream people for improved water management practices, such as the New York (USA) and Pimampiro (Ecuador)
 - Construction companies and land developers in the USA that need to offset damage to wetlands and land which contains red-list species (i.e. wetland mitigation banking and conservation banking). Regulatory offsetting of damage done to biodiversity is also required in at least the Netherlands and Brazil.
- There is at present not much information available about what internal source of funding companies use to cover PES investments (i.e. the *nature* of payments).

4. PRELIMINARY ASSESSMENT OF OPPORTUNITIES

Pulling together the information gathered during the interviews and literature survey on the scope, status and motivations for PES, the following opportunities can be identified to enhance private sector demand:

1. *Strengthen regulatory incentives for private investment in ecosystem protection and restoration:* Regulation will remain a key driver for businesses. Experiences with cap-and-trade markets in the USA, most notably wetland mitigation banking and conservation banking, illustrate that when properly established, regulated markets can trigger major private investment in ecosystem services. Environmental impact regulations governing business investments can also be shaped to mobilize private sector investment in ecosystem protection and offsets.
2. *Adapt the organization of PES to national economic and institutional conditions:* Nascent markets for ecosystem services are predominantly present in North- and South America and Australia. This is because the nature of private demand for PES is still unclear and not yet strong on a voluntary basis. In order for the geographic scope of PES to be broadened, institutional models must be adapted to national economic and institutional conditions. Regulated cap-and-trade markets, with their complex institutional requirements, are unlikely to arise in most low-income countries; rather, local and

regional business-driven deals may be more important, as well as local transactions that are part of international carbon or biodiversity deals. As demand becomes more established, there will be much potential to develop many types of PES in Africa and Asia.

3. *Emphasize the business benefits of investing in ecosystem services:* From interviews with a number of company representatives, it becomes apparent that in all of these cases there is some sort of “business benefit.” This finding implies that more attention should be placed – through capacity building – on documenting and educating companies about the benefits and opportunities of investing in ecosystem services. Beyond informing companies of the business benefits, exploring the demand-side restrictions of PES is a critical component of mobilizing private sector buyers. This entails finding out from companies what types of motivations and drivers would stimulate them to invest in ecosystem services and using those responses to implement more enabling conditions for private sector participation.

- *Business benefits in the short, medium- and long-term:* In the short to medium term, investing in ecosystem protection or restoration may improve relationships with regulators and communities and deliver business benefits. Benefits in terms of securing ecosystem services, such as water quality or sustained water availability from investing in a watershed, on the other hand, can only be expected in the medium to long term. Another business benefit that will probably only emerge in the long term concerns differentiation in the market by corporations that respond pro-actively on emissions reductions.
- *Public relations as short-term benefits:* Companies are increasingly aware of the global character of the economy and the importance of good PR. Although this is difficult to measure, public relations opportunities could play a major role in triggering private demand for ecosystem services, provided there is a genuine business rationale behind it.

4. *Use the opportunities of a growing carbon market:* The carbon market, being the most developed ecosystem service market, is increasing every year (see Figure 2). Some observers project that it will increase to US\$10-40 billion by 2010. With respect to reforestation and afforestation, emission reductions through carbon sequestration in (forestry) ecosystems can at least be competitive in the voluntary market.

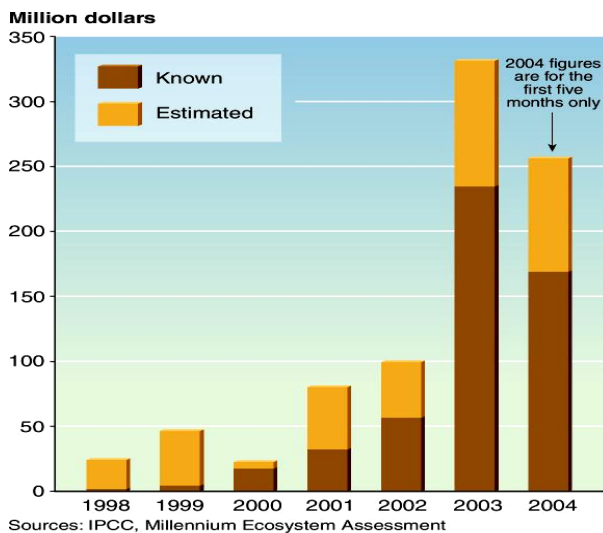


Figure 2: The total transaction volume of the carbon market, in millions US dollars per year (World Bank and Millennium Ecosystem Assessment, 2005)

5. *Financial institutions can play an important role in accelerating markets for ecosystem services.* Where the preconditions for market creation exist – and if these markets are developed – specialist socially responsible investment pension funds, amongst others, could play an important role in financing ecosystem services. While a higher level of mainstream institutional investment will likely require more substantial policy intervention, if private equity and venture capital investors are convinced about the risks, returns, legal status and other opportunities in these emerging markets, they may start investing more in individual projects that use (products and services of) ecosystems in a sustainable manner.³

5. PRELIMINARY ASSESSMENT OF BARRIERS

While the opportunities are considerable, the following barriers may slow the development of private sector payments and investments in ecosystems:

1. *Lack of evidence of financial benefits provided by ecosystems:* Companies are uninformed about ecosystem services and often have no idea what they are. There is currently, in most cases, no hard evidence of business or monetary benefits for managing and securing ecosystem services.. Therefore, companies are unsure about what they would pay for and what business benefits they would derive.
2. *Lack of awareness of ecosystem benefits leads to low investment:* Many companies cannot detect any benefit in investing in ecosystem services. Ecosystem services are generally not a priority for businesses. They are also available for free in many instances, so unless there are situations of scarcity, it can be uncompetitive for companies to invest in them without policy intervention.
3. *The transaction costs are too high:* As long as market payments remain “one-time” deals, transaction costs will likely remain high (e.g. for example, it is difficult and costly to set up a monitoring system). As markets reach more mature status, it is likely that transaction costs will drop, as new institutions arise to fill gaps in the value chain, and as technical and institutional innovations reduce costs such as ecosystem service assessment and monitoring, and access to market information.
4. *Lack of defined property rights:* Weak property rights hamper the involvement of important groups of people who live in or near natural areas (e.g. a water catchment area that regulates and supplies high quality water), but are poor, lack capacity and therefore have no means to enter the market (Mulder *et al.*, 2005).
5. *Lack of aggregator or common regulator:* In some cases when a potential private buyer is interested in securing and improving ecosystem quality (e.g., to achieve water quality from a large watershed or protect a high-biodiversity habitat important for tourism), it is necessary to get many landowners on board, who function as suppliers in this respect, in order to really make a difference in changing or maintaining the quality of the resource. There is, however, often a lack of institution to serve as an aggregator or a common regulator, to ensure that conditions are met to implement a deal.
6. *Different understanding about meaning and content of PES:* There is currently uncertainty about the meaning of the concept of “private PES”. Different ideas about the meaning of the concept, and expectations about the elements of an acceptable deal, by potential buyers and sellers will hamper both parties reaching an agreement.

³The situation is slightly different for biodiversity offsets, for which there is a strong business case in certain sectors and therefore greater likelihood of mainstream investment. However, companies are not investing in ecosystem services so much as improved relationships with regulators and communities.

6. NEXT STEPS

The opportunities and barriers mentioned above suggest next steps to take. Of these, the following deserve immediate attention:

1. *The biophysical component needs to be assessed and understood before major demand will emerge.* Most of the initiatives, especially related to water services, lack at present hard scientific evidence that ecosystems indeed deliver the services that a buyer has paid for. Although in a considerable number of initiatives in the carbon market estimates are given on the anticipated amount of carbon sequestered (often in tons or CO₂/ha), at present this has not been done for other services. Understanding the dose-response function relating land use and management with the provision of ecosystem services is crucial in order to get possible buyers interested.
2. *Capacity building, especially at the corporate level, could make companies and private organizations aware of the opportunities.* In order to increase private demand for ecosystem services, capacity building at the corporate level will need to play a key role in this process. Despite the considerable number of market deals that have been found during this review, many sectors are currently not involved in these types of markets for reasons that are related to lack of knowledge and lack of information about the opportunities. At present, most companies and private organizations cannot detect benefits for paying for these services, or they are unsure about the ecosystem service as a new kind of commodity. Capacity building at the corporate level should be carried out to (1) increase awareness of ecosystem services and its value; and (2) mention motivations and possible benefits of ecosystem service investments.
3. *Besides hard business benefits, also encourage attention to soft or indirect business benefits (such as green branding).* In a considerable number of cases, benefits should not be expected in terms of *hard* business benefits, such as securing business operations or cost-efficiency, but in terms of *soft* business benefits, such as regulatory good-will, quality staff recruitment, or reputational risk management. Though indirect, these benefits can save companies time and money – for instance, in speeding up permit negotiations because of local regulatory goodwill. Business benefits like these are often difficult to grasp and measure and may therefore hamper the growth of investments in ecosystem services. Making a mechanism available which is accepted by potential buyers to realistically compare other business benefits with actual payments made for ecosystem services could significantly contribute to triggering demand and increase incentives for investments.
4. *Sector-specific analysis:* Companies and other private entities that are currently active in these markets are clearly front-runners in their sectors. It is likely that there are many more areas in the world where the conditions to set up PES (-like) schemes are evolving. Furthermore, there are also sectors, such as the advertising sector, that are currently not involved, but have potential to start paying for ecosystem services. It will be important to further understand the buyer's needs and the differences between specific sectors.

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