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Summary WEBINAR April 16th 2014

„NATURAL CAPITAL MARKETS FOR WATERSHED SERVICES Actors, Mechanisms, and Impacts"

On Wednesday, February 16th 2014, the third webinar of the project „Natural Capital Markets“¹ took place with 72 registrations. Joost Bakker, programme manager of the Global Nature Fund, hosted the webinar, informed about the BfN-supported project, and gave a short introduction to the theme of the hour-long webinar as well as on the speakers.

Joost Bakker (NCM)

is the lead author of the NCM study on offsets and PES. Joost Bakker has been project manager for business and biodiversity at the Global Nature Fund for four years. He specializes in market-based instruments for biodiversity. Previously he worked as an analyst at Inrate (Switzerland).

Nathaniel Carroll (EM)

is Associate Director of Forest Trends' Ecosystem Marketplace. He currently directs biodiversity and water activities and market-crosscutting projects, including the Ecosystem Services Matrix and MarketWatch, which help stakeholders understand the shape, relationship, and scope of ecosystem markets.

Genevieve Bennett (EM)

is a Senior Associate at Ecosystem Marketplace, contributing market tracking and analysis to both the water and biodiversity programs. She is the lead author of "Charting New Waters: State of Watershed Payments 2012," a co-author of the "State of Biodiversity Markets 2011" report, and has written on water and biodiversity finance for "Ecosystem Marketplace" as well as for "Environmental Finance magazine", and "The Little Biodiversity Finance Book".

Joost Bakker, Global Nature Fund: The use of PES and offsets to protect watershed services

Although there are about US\$200 billion needed for biodiversity protection, the current expenditure adds up only to about US\$50 billion, with only US\$ 10 billion arising from domestic government funding (2012). A resulting question is, whether PES and offsets can protect biodiversity and bring profit for companies on an annually biodiversity financing deficit of about US\$150 billion occurs.

¹ Online information platform for biodiversity markets

To answer that question, the project Natural Capital Markets was started. Several products are offered as part of the project:

- Website: www.naturalcapitalmarkets.org
- Study
- Three Toolkits for companies, financial institutes and NGOs (showing dis/advantages for companies)
- Policy papers
- Webinars

In the NCM study, PES were analysed as direct, voluntary, conditional payments by the user of ecosystem services to the supplier of ecosystem services. That includes that the user paid voluntary, direct payments (no credits and no taxes), and the fact, that no ecosystem services is equitable with no payments.

An example of PES: downstream companies use water (breweries, households etc.) which makes them users of the ecosystem services. Upstream land owners can now be paid for water treatments to guarantee the high quality of the water supply. That makes companies situated upstream the “suppliers” of ecosystem services.

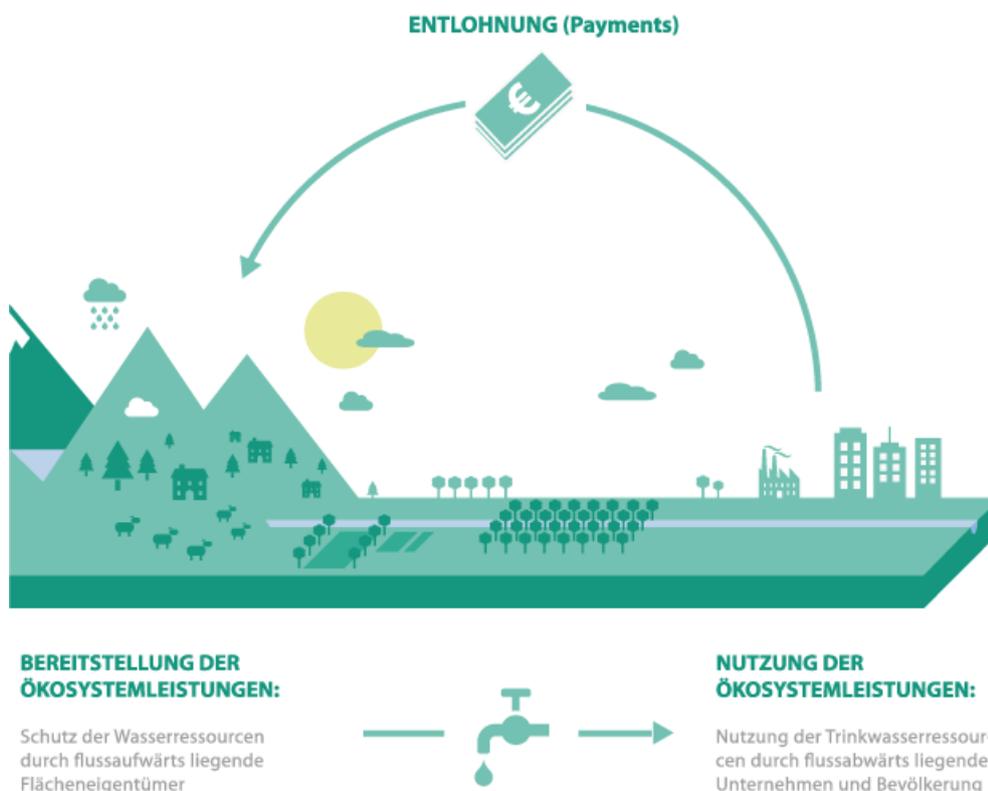


Figure 1 An example of a payments for watershed services scheme. (Based on Forest Trends, 2013 in Bennett, Genevieve, Nathaniel Carroll, and Katherine Hamilton. (2013). Charting New Waters: State of Watershed Payments 2012. Washington, DC: Forest Trends. Available online at <http://www.ecosystemmarketplace.com/reports/>)

There are already several good examples for PES, like Vittel in France where farmers are compensated for and educated to use alternative agricultural practices. Many other schemes do not fit the definition of PES but can nonetheless raise private sector money for the protection of biodiversity, such as the

financial support for organic farming in watershed of Munich municipal water company (SWM in Germany), or Bionade’s CSR measures in Germany, where trees are planted in watersheds.

Bakker underlined that there are several conditions for successful private sector PES programs: There has to be a demand for a particular ecosystem service, the ecosystem must be decreasing in quantity or quality, or the value resulting from the PES program should be significantly higher than the management costs of a PES program. Further, the supply of the ecosystem services is site specific (e.g. the source of Vittel’s water provides special minerals, which appear only in this local source) and it has to be certain, that other actors do not negatively influence the natural capital.

The main function of biodiversity offsets – that can be expressed in credits representing a compensation measure of a certain size and quality – is to offset the damage to biodiversity by using the mitigation hierarchy. The main goal is to acquire no net-loss (or preferably a net-gain of biodiversity). The wetland migration in the United States is a good example for biodiversity offsetting.

After Bakker explained the mitigation hierarchy more detailed, he pointed out that UK, France, Spain, EU and Germany have an increasing interest and show new developments in the field of impact mitigation (although not specifically for watersheds).

Although not much is happening in the voluntary offset market in Europe, actors engaging in this market generally follow the figure below. It shows different offset strategies, depending on the companies’ impact and the amount of land that is managed by the companies:

		Amount of land under management by a company	
		low	high
Impact of a company	low	Purchase single offsets	Creation of a habitat bank and supply offsets
	high	Buy offsets from a habitat bank	Create habitat bank and stockpile offsets for own impacts

As an example: If a company has a high amount of land under their management, but also a high impact, they should create habitat bank and stockpile offsets.

Bakker concluded that on the one hand, companies increasingly experiment with market based instruments to protect watershed services and legislation is drafted and improved. On the other hand, the critique against offsetting (and economic approach of nature) is increasing. In addition, there is hardly any incentive to offset impacts without legal framework and most opportunities for PES programmes, as described above, are still limited for the private sector. Therefore, different innovative financing mechanisms should not be looked at in isolation but rather as complementing mechanisms to scale up “PES“. The experiences already gained with existing payment schemes should be used to improve others.

[The study and toolkits are available on www.naturalcapitalmarkets.org]

Nathaniel Carroll and Genevieve Bennett, Ecosystem Marketplace

Water resources are a highly discussed topic today. There are many risks facing the water supplies and water quality. How can managing the health of the landscape, the forests, fields, and rivers be effective in protecting water resources, not to mention mitigating risks to energy and food security?

But how can it be operationalized to lower the costs? Who should invest in watershed protection and how? Since water sheds are public resources, the government appears to be responsible at first sight. But there are also good reasons for businesses to manage risk at this level.

It is unclear whether (and how) we can manage future infrastructure challenges resulting from a tremendous growth in demand for water infrastructure in coming years – coupled with similar rise in demand for food and energy. It is necessary to find ways to lower costs of clean water and address nexus issues in an integrated way.

But what does it mean to manage landscapes as natural infrastructure? Water-rich features of the landscape (e.g. forests, wetlands, or grasslands) and the services they provide (e.g. pollution filtration or flood control) must be identified. Then it should be invested in these assets – or alternatively in others to compensate for their loss. Nevertheless, there are a lot of questions and challenges for investments in natural infrastructure for water (lack of information, guidance, market infrastructure, or best practices for project development).

Therefore, Ecosystem Marketplace (EM) offers news, data, and analytics on markets and payments for ecosystem services, such as water quality, carbon sequestration, and biodiversity. In providing free reliable market information, EM hopes not only to facilitate transactions (thereby lowering transaction costs), but also to catalyze new thinking, spur the development of new markets and the infrastructure that supports them, and achieve effective and equitable nature conservation. EM further offers ongoing journalistic coverage, monthly news briefings, annual market reports, and other market intelligence, all free of charge.

The EM's "State of Watershed Payments" reports data on scale, volume, mechanisms, and impacts of investments are collected via a biannual survey, expert interviews, extensive desk research, and ongoing market tracking. With partners in US West, China, Ecuador, and Italy more than 400 programs were investigated in 44 countries, aiding in data collection. The EM's report of 2012 pointed out, that over US\$8 billion were spent on watershed payments in 2011 within a number of 205 active programs, most of them being located in North America and China.

Payments for Watershed Services can be defined as payments or direct compensations by the beneficiaries of a watershed service for the maintenance or provision of the service to its providers². Payments for watershed functions seek to link upstream land use and management with downstream water use and management to realize benefits for upstream and downstream participants in the scheme and others in the area, including benefits to the environment (see figure 1 above). This can be done in many different ways, of which the classical PES example one is.

Business is involved in a quarter of watershed protection projects tracked, but responsible for <1% of total funding. Between 1981 and 2011 about US\$94–102 million were invested by the private sector. The private finance has driven majority of projects in the EU, Africa, and Southeast Asia, with beverage, manufacturing, and utilities being leading sectors. The report also showed that most payment schemes were partnerships and that if business is involved, it is more likely to monitor the project's progress and to include anti-poverty goals.

Thereby, the 2012 report shows that the main drivers of business investments in 2011 were regulatory and financial/operational risks, followed by reputational risks, whereby the investment values were concentrated in North America and Europe.

The report showed that investing in watershed services can be much more efficient than most of the conventional water investments. Case study SAB Miller: In Colombia, SAB Miller subsidiary Bavaria supports a water fund led by The Nature Conservancy which pays agricultural producers to move cattle off of steep slopes (to limit erosion), switch to more ecologically-friendly farming practices, and replant degraded areas. The company so far has paid US\$ 240,000 into the fund and

² NIVA 2007. Feasibility of payments for watershed services

estimates that watershed protection efforts cut water treatment costs in the supply area by US\$458,000 each year.

In South Africa, climate change and water-guzzling invasive plants posed major risks to the supply chain. With a projected decline in surface water supplies of 41% by 2032, shifting to groundwater pumping to meet water needs would cost at least US\$ 700,000 per year.

SABMiller found that for the same amount of money, it could invest in clearing invasive plant species through partnerships with public works program “Working for Water” and biodiversity stewardship agreements. These actions also created an additional 50 jobs per year in the catchment and local reputational benefits for South African Breweries.

EM expects some big shifts within the watershed investment mechanisms for business. Growth in water funds, P3s (public-private partnerships), and community partnerships are assumed. Interest in a “beyond the fence” approach to water in the private sector seems to have grown pretty considerably in the last year or two.

Although 63% of businesses managing water risk on-site (4% managing risk in the supply chain and 3% managing risk at the watershed level), there is still very little action compared to the focus on efficiency and operations. There also seems to be a disconnection between actual risk and activity, and even sectorial differences have been noticed – sectors leading in water stewardship, and others that are falling behind.

Some of the barriers EM finds to natural infrastructure investments for the private sector are:

- **“Business as usual”**
 - Partnerships can play an important role in getting projects off the ground
- **Companies are re-inventing the wheel every time.**
 - Lack of information and guidance about effective project models
 - Low level of sharing of tools and experience
- **ROI is still not well understood.**
 - Measurement and attribution of outcomes is complex
 - Need for widely-available and accessible economic tools
- **Public sector/governance signals are largely missing.**
 - Accounting standards and disclosure frameworks
 - Regulatory drivers encouraging natural infrastructure
- **Awareness of investment opportunities is low.**
 - Beyond cost abatement/risk management:
 - Revenue opportunities: For example in venture capital (such as landscape restoration); P3s for green infrastructure; private nutrient mitigation banking; licensing “natural infrastructure” technology...
 - Service provision: Market platforms, standards, consulting

As a result, policy signals, partnership opportunities, and better guidance are enabling conditions.

In the discussion afterwards, it became clear that because (a mixture of) different payment schemes is used, the narrow definition of PES should not be used anymore. If used at all, the definition should be able to define different payment schemes. This also shows that innovative financial instruments to protect natural capital should not be analysed in isolation or that the use of one mechanism excludes other mechanisms. Rather, in every situation the best mechanism should be chosen and the possibility to combine different mechanisms should not be excluded.

Another point of discussion was how to scale up the company participation in payment schemes for watershed services. Barriers to a larger company participation in payment schemes for watershed services that were discussed included lack of awareness for the risks, lack of knowledge of payment schemes, insufficient expertise to set up schemes, lack of regulation and high upfront costs (both time and money).

Finally, the discussion touched upon the issue of support and collaboration between different payments schemes. Although there is not much North-South collaboration, more South-South collaboration is taking place: the water funds network in Latin America, Green Water Credits which began in Kenya and is demonstrating the methodology in China and Morocco, a knowledge exchange between the South African and Costa Rican governments, even a training program developed by Fundacion Natura Bolivia to disseminate their model of reciprocal agreements on water. And there are a number of programs like RUPES in Southeast Asia, PRESA in Africa (both coordinated by the World Agroforestry Centre), and the Equitable Payments for Watershed Services program (which was led by WWF and Care) which demonstrate watershed investments at multiple countries and synthesize learning across these projects.

The next webinar will take place 29 April 2014. More information under www.naturalcapitalmarkets.org/webinar

Minutes: GNF

www.naturalcapitalmarkets.org

In context of the project a study was made, which examines and critically discusses the two best known biodiversity markets, biodiversity offsets and payments for ecosystem services (PES). Besides that, directions for action for the target groups (companies, financial institutions, and NGOs) were created that give specific and individual directions for each group. For political decision-makers a policy paper gives summarized recommendations on how to deal with these markets. Further information is available on the website www.naturalcapitalmarkets.org. All studies can be downloaded in May 2014.

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