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Developing International Payments for Ecosystem Services: A Technical Discussion September 12 and 13, 2006 Geneva, Switzerland

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Summary report

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Table of contents

A.	Background of the meeting	3
B.	Objectives and structure of the workshop	3
C.	Session 1: Opening remarks	4
	Formal presentations	4
	Questions and discussion	5
D.	Session II: International PES: Major Gaps and Needs	5
	Objectives of the session	5
	Main points raised and discussed	5
	Main conclusions	6
E.	Session III: Taking Stock: Lessons from Experience with PES for International Schemes	6
	Objectives of the session	7
	Main points raised and discussed	7
	Main conclusions	8
F.	Session IV: Developing IPES: Key Challenges	8
	Objectives of the session	8
	IV.1 First Plenary Discussion – Selecting Potential IPES Schemes	8
	Main points raised and discussed	8
	Transitioning to the breakout groups	9
	IV.2 Breakout Group 1: Biodiversity Offsets	10
	General considerations	10
	Main challenges	10
	Institutional aspects	11
	Next steps	11
	IV.3 Breakout Group 2: Certification and Eco-labelling	12
	Main forms of eco-labelling	12
	Main challenges and next steps	12
	IV.4 Breakout Group 3: Building on the Carbon Market	13
	Bundling ecosystem services	13
	Institutional challenges	13
	Next steps	14
	IV.5 Breakout Group 4: Blue Skies	14
	Other options	15
	IV.6 Presentation of Breakout Groups and Discussion	15
	Initial report back	15
	Final presentations and immediate reactions	15
G.	Session V: A Plan of Action	17
	Objective of the session	17
	Main points raised and discussed	17
	Main conclusions	18
H.	ANNEX I: Workshop Agenda	19
I.	ANNEX II: List of Participants	23
J.	ANNEX III: Participants' Answers to Session 4 Questions	29
K.	ANNEX IV: Questions for Breakout Groups	31
L.	ANNEX V: Presentations by Breakout Groups	33
M.	ANNEX VI: Plan of Action	37

A. Background of the meeting

As interest in payments for ecosystem services (PES) continues to grow, a wide range of theoretical and practical work is being pursued in different parts of the world by many different organizations. Activities within this field of environmental management have provided many lessons upon which future efforts can build.

PES may be considered a form of positive incentive measure, in the terminology used by the Convention on Biological Diversity (CBD). The expanding trade in carbon credits under the Kyoto Protocol of the UNFCCC is another example of PES. More generally, PES can and has been used to address a range of environmental issues relevant to various multilateral environmental agreements (MEAs), as well as being an instrument of national, local and corporate environmental policy. UNEP, IUCN and others continue to explore the potential for applying PES to other environmental challenges, including at the international level.

UNEP has been working with economic instruments for over a decade. The Economics and Trade Branch (ETB) has been particularly active in exploring the various applications of economic incentives such as PES. The branch has acted as a coordinator between various UNEP divisions, and has been working towards facilitating the application of PES in different environmental policies and multilateral environmental agreements (MEAs).

The World Conservation Union (IUCN) has a long-standing interest in PES as a framework for raising and allocating conservation funds, and as a means to improve the equity impacts and efficiency of conservation action. IUCN is involved in several PES initiatives with a range of partners around the world, including work on valuing ecosystem services, developing policy and guidelines for pro-poor PES, pilot projects to test alternative payment mechanisms, and other initiatives.

In October 2005, UNEP organized a High-level Brainstorming Workshop on the Creation of Pro-poor Markets for Ecosystem Services in London to review some of these efforts and discuss opportunities to promote equitable payments and markets for ecosystem services, particularly within the context of MEA implementation.

Following the London Workshop, UNEP, IUCN and the CBD Secretariat have consulted with a number of experts¹ on the need and potential for scaling up PES to the international level. Several experts have identified a significant gap between the considerable efforts taking place in various contexts at national and local level around the globe and the work being done at the international level.

The workshop on International Payments for Ecosystem Services (IPES), held in Geneva on 12 and 13 September 2006, sought to address this gap by joining experts from academia, the private sector, governments, international organizations, and NGO's to discuss the potential for developing PES at the international level. The workshop was hosted jointly by the United Nations Environment Program (UNEP) and the World Conservation Union (IUCN), in close collaboration with the Convention on Biological Diversity (CBD), and with financial contributions from the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety.

The event was designed as a technical discussion, focusing on the key hurdles that stand in the way of developing IPES. The findings of the Millennium Ecosystem Assessment, notably in terms of the degradation of the world's ecosystem services, provided the starting point for this discussion.

B. Objectives and structure of the workshop

¹ Notably: Ricardo Bayon, Anantha Duraiappah, Paul Ferraro, Pablo Gutman, Michael Jenkins, Alain Lambert, Jeff McNeely, Stefano Pagiola, Kerry ten Kate and Sven Wunder.

The overall aim of the workshop was to establish a common ground for further discussion of IPES and to identify opportunities for scaling-up PES to the international level. The event worked towards developing a plan of action for IPES over the coming years, including elements such as further research, pilot projects, awareness raising and capacity building.

The workshop was likewise intended to serve as a first step in a longer collaborative effort, involving those attending as well as others interested in IPES. The organizers initiated a process that builds on experience with PES to date, and sought to involve and coordinate among the relevant parties working on PES projects. A background paper on International Payments for Ecosystem Services, based on a literature review and summarizing the main opportunities and challenges, was circulated prior to the workshop.

The event combined discussion in plenary sessions and breakout groups. During the first plenary session, UNEP, IUCN, CBD Secretariat and the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety outlined the motivations for their involvement in the workshop. Following these opening remarks, the participants engaged in three plenary sessions to set the stage and begin to develop some ideas on possible ways of moving forward with PES at the international level. Breakout groups were then created in order to generate more substantive discussions on the various avenues that could be explored in developing IPES. Finally, the plenary met again to present and discuss the results of the breakout groups and to jointly establish a plan of action.²

Approximately forty participants were present at the two-day workshop, representing various stakeholder groups, such as international organizations, governments, academia, businesses, and non-governmental organizations³. Participants came from all continents, approaching IPES from many different perspectives and sharing a common interest in contributing to a fruitful discussion on the future of this field of environmental management.

C. Session 1: Opening remarks

Formal presentations

The participants were welcomed to the workshop by Hussein Abaza, Chief of the Economics and Trade Branch (ETB) of UNEP. Mr. Abaza reminded participants that PES is a relatively new subject for UNEP, but that the organization has a long history of working on economic instruments and related topics. He emphasized that UNEP is very interested in developing the concept of PES at the international level and finding its 'niche' within this growing field. Fulai Sheng, from UNEP ETB, then explained the main objectives of the technical discussion, which were to come up with specific, concrete actions to be taken collectively in order to move forward with IPES.

Dr. Joshua Bishop from IUCN followed up with a brief presentation on global biodiversity finance. He highlighted the need to generate more resources in the future by stimulating demand for biodiversity and creating new markets that could make biodiversity conservation larger in scale as well as more effective, equitable and responsive.

Axel Benemann of the German Environmental Ministry supported the need for new and additional funding for conservation efforts. Mr Benemann expressed some optimistic thoughts with regards to the next steps to be taken by the CBD during its next Conference of the Parties (COP) in 2007 in Germany.

Dr. Markus Lehmann from the CBD Secretariat reminded participants of the importance to achieve the 2010 biodiversity target. He noted the important challenges that stand in the way of achieving the 2010 target, including the need for funding and the need for enhanced mainstreaming of biodiversity concerns into

² The full agenda of the meeting is provided in annex I.

³ A full list of participants is provided in annex II.

sectoral and cross-sectoral plans, programmes and policies. He explained that the CBD COP has expressed interest in exploring innovative international financial mechanisms as well as innovative positive incentive measures – which would include the PES systems that are increasingly tried out throughout the world.

Before opening the floor to questions and comments, the co-authors of the workshop's background paper, David Huberman and Tobias Leipprand of UNEP, offered a brief overview of the document. The authors reminded the participants that the background paper was still a piece of work in progress and they invited suggestions on how to improve the document.⁴

Questions and discussion

The ensuing discussion combined specific questions addressed to the presenters and general comments relative to the topic of the workshop. Members from the private sector voiced some concern with the PES concept in terms of the language used, stating that businesses may be more receptive to the concept of 'partnerships' for conservation, rather than in commercial 'payments'. Furthermore, they felt that the background paper needed to include more quantitative data on the economic benefits that can be and have been generated through conservation. A regulatory framework for IPES would be important in order to put everybody on the same playing level; in subsequent discussions, it was however noted that no such regulatory framework is under discussion or negotiation.

Several participants raised concerns about the distributional (equity) impacts of PES. Some found this topic to be lacking in the paper, while others pointed out that the cost to local communities is often not factored into the cost of conservation. Additional comments noted that PES should not be perceived as the 'whole' answer to financing conservation, and that not all market-based instruments should be placed under the PES umbrella. In terms of generating more demand for ecosystem services, the need to tap other sources, such as the ecotourism industry and ordinary consumers, could have been more addressed in the background paper. Finally, participants expressed the need to broaden the IPES debate, notably by involving the Secretariats of other Multilateral Environmental Agreements (MEAs), and by including water-related issues surrounding trans-boundary ecosystem management.

D. Session II: International PES: Major Gaps and Needs

Objectives of the session

The aim of this session was to establish a common ground for the further discussion of IPES and to identify the opportunities for scaling up PES to the international level. This was done by seeking consensus on the definition of IPES provided in the background paper and on the types of ecosystem services that could be considered for potential IPES schemes. Furthermore, a discussion was initiated on the potential for 'bundling' certain ecosystem services as a means of scaling up PES. This discussion sought to build on the findings of the MA and other environmental assessments.

Main points raised and discussed

The session facilitator, Dr. Sven Wunder, initiated the discussion by soliciting reactions to the IPES definition in the background paper. The limits of a broad definition were quickly raised, notably by those keen on seeing PES move beyond voluntary agreements and into a more stringent regulatory framework. The discussion then moved towards more specific considerations on the different types of ecosystem services, payments, and service providers that could be included in the definition of IPES. Several participants expressed the view that the greatest need for IPES was for biodiversity conservation, which is an ecosystem service of global significance (along with carbon sequestration) but one which lacks the market mechanisms in place for carbon.

⁴ To view the background paper, please visit: <http://www.unep.ch/etb/events/2006-PESTD12-13Sep.php>

Following the preliminary discussion on the IPES definition, Dr. Wunder raised two questions to be addressed by the group and split the room into two sections, asking participants to talk with their neighbours on one of the following two questions:

1. What are the key international ecosystem services that should be the focus of the discussion, and why?
2. When thinking about scaling up PES to the international level, what are the possibilities for bundling ecosystem services?

In response to question 1, some participants noted that watershed services needed to be a part of the discussion, and that the recognition of services in water quality (as opposed to quantity) was currently lacking. It was argued that valuation efforts should be easier in the case of water than for other ecosystem services, as it is not exclusively a public good. Others pointed out that water quality is generally a local or national ecosystem service and thus may be less amenable to IPES, except in the case of transboundary waters. Further, the role of biodiversity as a potential link between different ecosystem services was touched upon at this stage.

The issue of bundling, raised in question 2, was more controversial. Participants evoked the potential of forest ecosystems to provide a bundle of services. Supporters of bundling noted the potential economies of scale that may be achieved through bundling, and saw a major opportunity in the on-going international discussion of climate change mitigation through forest conservation, which could offer a means of adding other ecosystem services onto the existing carbon market. Thus, the notion of ‘piggy-backing’ on the carbon market was advanced. In the case of the Mexican PES scheme, it was introduced that conservation efforts are supported by the proceeds from a water tariff. Watershed protection can therefore also be perceived as a means of integrating payments for several ecosystem services.

Protected areas were also seen as having potential to provide a bundle of ecosystem services. Some participants suggested bundling such areas together to generate a regional ‘package’ of ecosystem services. However, other participants warned that IPES should not focus exclusively on protected areas, as much work needs to be done outside of such zones.

Several participants remained quite sceptical with regards about the possibility of bundling ecosystem services, noting the difficulty of determining the overlap between services provided. Some stated clearly that it was technically impossible to disassociate biodiversity from carbon and water service. It was argued that the overlaps among services provided by different management systems are often difficult to determine.

Main conclusions

Throughout the discussion, there was a general consensus that carbon and biodiversity are the two most relevant ecosystem services in the IPES discussion. International water-related services are an exception, but would generally be best addressed at a bilateral level. However, there still remains an important gap between carbon and biodiversity, as the possibility of establishing a global ‘cap-and-trade’ system for biodiversity, similar to the Kyoto Protocol for carbon, was believed to be quite remote. The discussion on bundling emphasized the need to approach the issue from the perspective of the demand for ecosystem services in order to establish the most attractive payment scheme. Further discussion on the potential of ‘piggy-backing’ on carbon, notably through incentives or payments for forest conservation, was encouraged. As a means of transitioning to the following session, the facilitator highlighted the fact that the empirical evidence shows few examples of successful cases of bundling and of international payments for services other than biodiversity and carbon.

E. Session III: Taking Stock: Lessons from Experience with PES for International Schemes

Objectives of the session

The aim of session three, facilitated by Pablo Gutman, was to take stock of existing analytical and practical work related to IPES. Previous experiences with carbon markets and various PES schemes were addressed in an effort to build upon the lessons learned and to identify the most relevant parameters, pre-requisites, and/or performance criteria for successful IPES. The facilitator assured participation from a broad range of stakeholder groups in order to collect a wide and balanced view of the many experiences to date with PES schemes of all types.

Main points raised and discussed

A central theme of the ensuing discussion related to the balance between public and private funding for PES schemes. It was observed that privately run markets are generally most efficient, but some type of regulatory framework is often necessary. The equity issue was raised again by some participants, who argued that PES schemes need to respect their stated social and environmental objectives. It was also suggested that policy designers need to make sure they know where the payments are going. It was pointed out that public funding for PES schemes can raise problematic issues such as difficulties in prioritisation, troubles with differentiating payment rates, political side-objectives, and hidden subsidies.

Many challenges were brought up in terms of generating support from private companies. While it was noted that there is considerable interest to engage more with the private sector, for instance as indicated by CBD Parties during the last COP, it was also highlighted that businesses would be wary of projects that have higher risk, which can often be the case when development objectives are too prominent.

Several participants raised the technical difficulties associated with the valuation, monitoring, and enforcement of PES. It was argued that the evaluation of a project itself is often a missing component in project design, which needs to be integrated better in future efforts. The difficulties in anticipating which areas were most likely to be threatened or affected by PES were raised as well. This served as a reminder that markets often need to be guided by public policy in order to achieve conservation objectives. Related to such considerations, the need for more robust science in the valuation of ecosystem services was expressed, as certain projects rely merely on common beliefs. This is particularly relevant for water-based services.

In terms of scaling up PES to the international level, caution was expressed relative to the potential political barriers likely to hinder cooperation. It was stated that lessons need to be drawn from the carbon experience. In the case of trans-boundary watershed management, upstream States are often keen on figuring out how much of a given ecosystem service they provide, while countries that are downstream can be very cautious of any PES scheme likely to entail significant financial transfers.

Nevertheless, possibilities of increased cooperation at the international level were discussed by several participants, drawing on examples such as the case of the successful management of migratory bird species. It was expressed that partnerships should aim for the widest possible participation and support, and need to be set into a long-lasting time frame. Furthermore, it was suggested that roles need to be clearly defined among the different parties.

A particular type of international cooperative scheme discussed involved the collaboration between protected areas of developed and developing countries. It was suggested that there is room for further exchanges of resources, knowledge, and management between the North and the South. Pairing national parks in different countries was suggested as an option for facilitating these exchanges. It was stated that monetary incentives are not always the most appropriate form of compensation, and that protected areas should not be the only focus of conservation efforts; sustainable use and equitable benefit sharing are equally important.

Alongside the considerations on international cooperation, others advocated for more localized efforts, stating that PES schemes work better at local and municipal levels. Here, it was commented that efforts should aim at integrating local markets into an international payment scheme.

Main conclusions

The discussion pointed to the need to better understand the demand side when thinking about scaling up PES to the international level. These considerations arose as participants talked about how best to move from a potentially politicised public program to a privately funded PES scheme. Members from the private sector reminded the participants that the need for a clear demand with clear gains from trade is essential for international transactions to develop. There was also a feeling that potential buyers would prefer to pay for real actions as opposed to indirect or passive measures such as avoided deforestation.

It was also widely believed that consumers in developed countries are willing to pay for conservation efforts outside of their own borders, and that certain user groups, such as tourists, could be important demanders of international ecosystem services. The potential for tapping into new sources of demand was seen as being quite high, but there was no clear view expressed on how such efforts could be coordinated.

F. Session IV: Developing IPES: Key Challenges

Objectives of the session

The general aim of this session was to identify the most promising IPES mechanisms and to explore the main challenges that could arise when designing and implementing them. The session was the longest of the workshop and combined plenary meetings with work in breakout groups. The facilitator, Dr. Stefano Pagiola, asked participants to think of a certain scheme or strategy for implementing IPES during the lunch break, and everyone's ideas were posted on the wall at the beginning of the first plenary. This exercise served as the basis for discussion on how to move forward with IPES, and the focus of the breakout groups.

IV.1 First Plenary Discussion – Selecting Potential IPES Schemes

Main points raised and discussed

The various types of mechanisms proposed by the participants were discussed in order to determine how they could best be grouped into categories that would be the focus of the breakout groups. The facilitator asked the participants to answer two key questions relative to their preferred IPES strategy:

1. Which types of ecosystem services would be covered?
2. How would the system work?

The responses were written on A5 paper and posted on the wall⁵. Concerning question 1, it became quite clear that a majority of the participants were mainly concerned with biodiversity-related ecosystem services. Several participants saw biodiversity as an umbrella for additional ecosystem services (carbon, water, etc...), while others were mainly concerned with combining carbon and biodiversity. However, some of the responses took a different perspective, focusing more on habitats or specific ecosystems, such as wetlands, forests, or even landscapes as the central focus of a PES scheme.

With regards to question 2, several participants listed biodiversity offsets and conservation banking as promising IPES mechanisms. Others suggested building on the existing carbon market by including biodiversity in a cap-and-trade system. Public sector financing schemes were also offered as potential sources of payments, such as a biodiversity 'Tobin tax', or a new type of conservation fund. Some participants were most interested in water related issues and managing trans-boundary ecosystems through fees and credits. The use of eco-labels and certification was also mentioned by several participants as a promising way of increasing the demand for IPES.

The discussion started off by addressing the debate on voluntary versus regulatory frameworks for PES. Several participants expressed the need to move towards more stringent regulations in order to ensure that

⁵ A complete list of responses is included in annex III.

environmental and social objectives are met, while others argued that PES schemes were not yet ‘ripe’ for binding regulation. Thus, voluntary agreements could serve as a good starting point and learning process for IPES.

The rest of the plenary was mostly spent debating the relevance of biodiversity offsets and certification. Although participants often mentioned these mechanisms as having potential, there still remained some controversy within the group with regards to their exact place within the IPES discussion.

Concerning biodiversity offsets, it was stated that they could serve as an effective way of tapping into the substantial financial resources available for land development and infrastructure projects. The possibility of including conservation and sustainable use criteria into real estate deals was seen as promising. However, others highlighted the potential risks associated with the use of offsets, such as ‘greenwashing’, leakage, perverse incentives, and the lack of additional benefits to the environment. Furthermore, it was not clear who would act as guarantor and broker for these deals, at an international level. Finally, the difficulty of defining and measuring biodiversity as an ecosystem service was seen as a major challenge for the development of biodiversity offsets.

With respect to certification schemes, it was suggested that biodiversity projects could become a potential basis for new types of eco-labelling. However, many shortcomings were identified by participants. Some stated that certification does not have the market potential to scale up PES to the international level. Others argued that certification could not be considered a main vehicle for IPES, since many developing countries were rather reluctant to develop such schemes, while many small businesses and rural communities were marginalized in the process.

Transitioning to the breakout groups

Towards the end of the session, the discussion turned towards the next step of the workshop: the breakout groups. It was initially suggested to have three groups work on biodiversity and one group on carbon. The biodiversity groups would be divided into cap-and-trade, offsets, and certification, while the carbon group would explore ways of including other ecosystem services into the existing carbon market. The interest in discussing water and other trans-boundary issues was seen as being inadequate among the participants to justify a dedicated working group on the topic.

Once this structure was proposed, some participants expressed interest in having a working group that could perhaps generate some ‘out-of-the-box’ thinking by not having an explicitly stated focus. Consequently a ‘blue skies’ group was created to respond to this desire. Furthermore, the group on carbon was merged with the biodiversity cap-and-trade group with the stated objective of thinking about ways of ‘piggy-backing’ on carbon trading. The participants were free to choose whichever group they wished to join. The group that attracted the most participants was ‘blue skies’, while the certification and ‘piggy-backing’ groups attracted the least participants.

Before the plenary broke up, the facilitator listed key questions to be addressed by each group⁶. At this stage, it was pointed out that the working groups should focus their discussions on thinking not only about ways of allocating and managing payments for ecosystem services, but also about how the necessary funding could be raised. The importance of securing a sustainable and lasting funding source was seen as a critical factor for the successful development of IPES. Moreover, the need to address the issues of financing and payments as two separate elements of any potential IPES scheme was evoked and often reiterated in subsequent discussions.

⁶ See annex IV for more details.

IV.2 Breakout Group 1: Biodiversity Offsets

General considerations

The concept of biodiversity offsets was first discussed in general terms, as not all participants were familiar with the approach. It was considered as a mechanism to compensate for the unavoidable impact on biodiversity caused by infrastructure projects, to ensure ‘no net loss’, and, preferably, a net gain of biodiversity. At the onset of the discussion, participants referred to the existing Business and Biodiversity Offset Program (BBOP), which was seen as playing a crucial role by developing and testing biodiversity offsets in a portfolio of pilot projects.⁷

Businesses were identified as the main potential buyers of international offsets. In voluntary schemes, biodiversity offsets can create value for companies as part of their existing efforts concerning social and environmental responsibility. Along with private companies, the public sector was also considered as a potential buyer of biodiversity offsets, e.g. in the context of large infrastructure projects.

Existing regulatory regimes allowing or requiring biodiversity offsets include US federal and state laws regarding the conservation of wetlands and endangered species habitat; state policies requiring ‘no net loss’ of biodiversity in parts of Australia, proposed regulations under the Environmental Liability Directive in the EU, and the new IFC performance standards (cf. performance standard 6, paragraph 8, April 2006), among other policy initiatives.

Main challenges

Several issues related to the use of biodiversity offsets arose in the course of the discussion:

- **Acceptability:** Several participants stated that offsets are only appropriate for unavoidable impacts. However, the definition of unavoidable impacts can be problematic, particularly in view of the mixed motives of local and national governments seeking to promote both conservation and development. Additional questions were raised about the effectiveness of biodiversity offsets at an aggregate level, particularly in voluntary schemes, due the risk of ‘leakage’ and the absence of enforceable caps on land conversion.
- **Measurement:** Technical questions regarding offsets include: 1) how to assess the (biodiversity) loss related to a particular project; and 2) how to find an appropriate ecological compensation. Given the time pressure for many development projects, such measurements often lack scientific rigor – as shown by the Ugandan experience. In this context, issues of additionality and of potential multipliers have to be taken into account.
- **Sustainability:** Offset buyers (e.g. land developers) often prefer to minimize their long-term liability for ensuring effective ecological compensation. Hence the need to create autonomous mechanisms or incentives to ensure that offsets are secure over the long-term. The oil pipeline between Chad and Cameroon was cited as an example where protected areas set up as a form of ecological compensation were seriously threatened some years later – due to inconsistent government support. Businesses need to decide whether they will invest in managing the offset themselves or transfer responsibility (and resources) for long-term management to third parties. In this context, participants pointed out the importance of independent monitoring of biodiversity offsets.
- **Tradability:** In contrast to carbon markets, the tradability of biodiversity raises severe difficulties. Not only the comparability and thus the potential compensation of the same species in different

⁷ See: <http://www.forest-trends.org/biodiversityoffsetprogram/>

environments are controversial, but also social impacts require some consideration. For example, offsets can raise equity problems, particularly if different communities are affected by the development project and the offset. This can be a significant issue where people depend heavily on certain species or on biodiversity in general.

Institutional aspects

The institutional dimension turned out to be crucial as well for the following considerations about the potential development of biodiversity offsets on an international scale.

- **Who should be the regulator/operator?** Successful offset programs require credible mechanisms for quality assurance. Especially in the context of international offsets, a case-by-case approach based on habitat equivalence may not be appropriate. Some participants stated that businesses would tend to favour governmental oversight, rather than an NGO-based scheme.
- **Regulatory or voluntary approach?** Whereas regulations requiring offsets exist in several developed countries, developing countries often lack any such requirements. Participants agreed that some minimum criteria should be developed at the international level and suggested to integrate the requirement to offset large infrastructure projects in OECD/DAC principles for investors. From the business' point of view, an ideal solution would combine voluntary and regulatory approaches.
- **Which platform for an international program?** Deliberating about a potential institutional framework for the international level, participants suggested that UNEP could offer a promising platform – given the preference of business for strong governmental backing. However, slow decision-making procedures could hamper the effectiveness of an inter-governmental regime. Moreover, the tendency of inter-governmental processes to seek consensus often results in 'least common denominator' decisions, which could restrain the development of effective international mechanisms for biodiversity offsets.

Participants noted that relatively few companies and countries are currently involved in offset projects. To raise the percentage of industry participation to a significant level (e.g. 25%), participants suggested that IUCN, for example, could establish realistic thresholds for different sectors. The importance of communications and public relations efforts were emphasized in this regard.

Still, several aspects seem to make an international scaling up of biodiversity offsets rather difficult. In the case of BBOP, for example, projects are only 'international' in terms of the involvement of multinational companies. Moreover, governments issuing a license are usually inclined to focus on their own territory for political or cultural reasons. This 'domestic logic' could be overcome by trans-boundary projects where countries are already working together – an approach that is also promoted in the EU through the Natura 2000 system of protected areas. Furthermore, recent discussions in the Netherlands exploring the possibility that companies might offset the damage of uncertified imports should be further explored.

Next steps

Numerous concrete actions were pointed out, stating that any new work on biodiversity offsets should refer to existing international policy guidance, where relevant, and should seek to complement not substitute for other related initiatives (e.g. BBOP). Several participants also insisted on the principle that offsets, where appropriate at all, should only be used as a last resort, and should only be considered after all efforts have been exhausted to avoid, minimize and mitigate damage to biodiversity. A detailed list of concrete actions to be undertaken was presented to the plenary and is listed in annex V.

IV.3 Breakout Group 2: Certification and Eco-labelling

Main forms of eco-labelling

The main types of eco-labels that were identified by the group were those used for organic agriculture, forest products, and biofuels. Although **biofuels** does not yet have a niche for eco-labels, it was identified as an area in which certification might be needed in the future to meet the growing demand. The expansion of biofuel crops could have a significant impact on biodiversity and possibly, food security.

Certification for **organic agriculture** was seen to be a growing trend. The money earned from paying for extra costs in organic agriculture could be used to finance one of the major challenges of certification, which is enforcement of regulations and harmonising standards. A mechanism needs to be put in place to avoid fraud, and it was suggested that an eco-label should also ensure credibility that the product is beneficial to biodiversity. Another challenge for organic agriculture is that it currently attracts mainly high-income consumers.

On certifying **forest products**, a growing trend was also identified. However, like the challenge identified for organic agriculture, it attracts mainly consumers in developed country markets. In terms of supply, forest certification is believed to be more manageable in developed countries, as developing countries lack the institutional capacity for overseeing forest certification. Therefore, the key question is what are the incentives for developing countries to comply with forestry standards. For example, developing countries could just supply each other with non-certified forest products. There is little incentive for them to absorb the extra costs and procedures involved in supplying certified forest products to developed country markets. Moreover, many suppliers in developing countries, particularly small- and medium-sized enterprises (SMEs) or community forest owners, lack capacity and resources to access existing certification systems.

Main challenges and next steps

Overall, it was agreed that eco-labelling should not be seen as a panacea to promote biodiversity conservation. It should be recognized as one of the many forms of IPES. The main challenge for all forms of certification is whether the label ensures a benefit to biodiversity. The first step to ensuring that producers respond is to launch an awareness campaign, especially in developing countries, to communicate the benefits of safeguarding biodiversity and the advantages in selling products that do so, which could create a market pull effect.

Mechanisms for certifying forest products already exist, such as the Forest Stewardship Council (FSC). However, a challenge is making sure that organisations such as these are financially stable as these systems are grant dependent. Certifiers and auditors are the ones making a profit as opposed to the actual certification system. Amongst certification systems, there is an apparent lack of harmonisation, as many systems exist which have multiple standards. Moreover, there may be conflict between competing systems of certifications.

Another challenge raised was identifying who will finance these schemes: government or the private sector? A participant gave one example in which a private bank in Mexico would not give loans to clients without certification, but gave loans to those who were seeking certification. This can be one example for how the private sector can partially finance certification, although an international finance mechanism is still lacking. It was also suggested that private companies could adopt business-to-business 'responsible procurement' as another form of private sector involvement.

Thus far, the use of and monitoring of eco-labels has been enforced through informal policies or 'soft' regulations. One way to counteract weak enforcement would be if governments formally adopted policies to encourage the use of ecolabels such as through the government procurement of forest products.

To design an effective financing mechanism, it was agreed that one would first have to analyse the supply chain to identify the weak link, whether it is the producer or landowner. It was concluded that financing

could come from a variety of different stakeholders, i.e. landowners, the certification organisation or governments. Financing can also come in the form of grants from the private sector or from a public fund set up much like the Global Environment Facility (GEF)⁸.

IV.4 Breakout Group 3: Building on the Carbon Market

Bundling ecosystem services

Recognizing the plethora of existing work on carbon markets, the group decided, instead of building on the pre-existing carbon model, to discuss the various trade-offs between ecosystem services and the possibilities of eventually bundling them together. At first, the participants were not happy with the term ‘piggy-backing’. There was concern over burdening the carbon market at its early stage of implementation. Efforts at joining payments for biodiversity and carbon services need to aim to reduce overall costs. It was believed that there are measurable benefits to the inclusion of additional ecosystem services to the carbon model. The group preferred to talk of ‘integrating’ ecosystem services in an effort to make the existing carbon market more attractive by offering additional services.

The bundling of ecosystem services was seen as having great potential in terms of attracting additional investments in conservation. It would be insufficient to rely solely on carbon to finance the conservation of forests, and the value of water and biodiversity services need to be taken into account as well. The bundling would apply to the implementation stage, while buyers and sellers of ecosystem services would be targeted to the specific service of interest.

The potential for **agroforestry** systems to serve as pilot projects for coupling biodiversity and carbon payments was believed to be considerable. Indeed, by providing incentives for tree planting within productive landscapes, farmers could offer both carbon sequestration and biodiversity benefits to investors without compromising their other income-generating activities. Nevertheless, it was stated that more work needs to be carried out in this field, notably with regards to the definition of agroforestry itself in order to avoid having such schemes become over-inclusive.

The participants also explored the linkages that went beyond environmental ecosystem services, to include **rural development** issues, such as health or employment. Examples from South Africa demonstrated how projects designed to create employment could also have environmental benefits. Furthermore, there exist possibilities of linking PES with health objectives, notably through payments for improved water quality. Such projects could significantly increase the funding source for PES. Finally, it was argued that peace and safety efforts could benefit from sustainable management of resources, especially for trans-boundary ecosystems. The example of forest guards in Liberia acting as peaceful intermediaries between communities sharing natural resources in an area in conflict was brought up to illustrate this point.

Institutional challenges

In terms of developing the institutional capacity for integrating ecosystem services into a common framework, the initial ideas faced several problems. First of all, it was noted that it would be difficult to get MEAs out of their ‘family groups’ (e.g. water and forests) and collaborate jointly on a new project. It was anticipated that the United Nations Framework Convention on Climate Change (UNFCCC) might be reluctant to have other organizations act as a coordinator for a payment mechanism that deals with carbon sequestration. Furthermore, there is a real transaction cost associated with joining conventions together and setting up the institutional framework necessary for the integration of biodiversity, water, and carbon issues.

The participants also identified a major shortcoming of the carbon mitigation market by evoking the Kyoto Protocol’s Joint Implementation (JI) and Clean Development Mechanism (CDM). These mechanisms are seen as being successful mainly for large-scale projects (e.g. mitigating HFC). Smaller contracts, especially

⁸ The main findings of group 2 are detailed in annex V.

in developing countries are quite marginal. It was therefore recommended that a landscape-level approach to the integration of ecosystem services into a unified payment mechanism be considered.

Next steps

In terms of stimulating the international demand for ecosystem services, the group emphasized the importance of tapping into as many sources as possible. Within the approach of integrating development, health, and safety concerns into PES, it was believed that funding sources could be more easily broadened, notably by leveraging on the growing philanthropic trend. Furthermore, the importance of developing **creative marketing** ideas to reach out to potential buyers would help increase people's willingness to pay for biodiversity. The example of 'My Acre for Africa' certificates in South Africa was seen as a being a step in the right direction.

The plan of action advanced by the group, which can be found in annex IV, focused mainly on developing inter-linkages among ecosystem services, recommending additional analytical work on exploring the interdependencies among biodiversity, carbon sequestration, watershed protection, and soil formation.

IV.5 Breakout Group 4: Blue Skies

This group's objective was to explore innovative, 'outside-the-box' mechanisms for biodiversity conservation, knowing that such a broad discussion topic would result in less concrete and detailed outcomes compared to the other breakout groups. Group members first established a set of criteria that such an innovative mechanism would need to satisfy in order to be helpful. It needs to be both realistic and new. In addition, it was suggested that the funding should be secured on a long-term basis, that it should include existing protected areas and intact ecosystems, that it should include sustainable use practices, and that it should make use of a combination of voluntary and regulatory approaches.

Cap and trade

One of the proposals was for a 'cap-and-trade' approach to biodiversity conservation, which could use mechanisms similar to those used in the Kyoto protocol for carbon to limit the 'consumption' of biological diversity. There were multiple views on how the cap side of the scheme could be implemented. Countries could be ranked by the amount of remaining biodiversity-rich areas and given credits accordingly. Another option is to seek a commitment from developed countries to buy a certain amount of biodiversity credits per year. Unlike committing to investing a certain sum of funds in conservation or sustainable use activities, this approach could potentially realize efficiency gains by making service providers compete for funds on a dollar-per-credit basis.

The most important problem identified by the group was the difficulty in quantifying and measuring biological diversity, which would be necessary for trade to take place. Some argued that a credit system with some sort of unit (such as the ton of carbon dioxide in the Kyoto framework) should perhaps not be established since different habitats are difficult to compare. Others believed that a common metric could possibly be created and recommended further research on this topic. The metric would need to be workable at the international scale.

Further possible obstacles toward the implementation of a cap and trade scheme for biological diversity that were identified include the difficulty to monitor and enforce such a scheme, as well as the political support and coordination needed to create a regulatory framework. In this respect, it was suggested that the CBD could potentially provide the legal framework for such a scheme.

Before any pilot projects among interested nations can be implemented, the group agreed that further research on the above-mentioned issues was necessary. Such research should involve the key stakeholders while taking geographical and sectoral disparities into account.

Other options

As an alternative to the regulatory approach of a cap-and-trade programme for biodiversity, it was proposed to build on the voluntary demand for biodiversity conservation / sustainable use services. The question of whether or not demand from the private sector or philanthropic organisations can secure the necessary long-term funding was a controversial issue within the group. The general consensus was, however, that potential voluntary demand needs to be better understood, and that further research is necessary. Independently of whether a regulatory framework is used to induce demand or voluntary commitment becomes the only source, solutions have to be found on how to bring supply and demand together. Two possibilities were discussed in more detail:

Firstly, a **fund** could collect payments and allocate them to biodiversity service providers. This fund would operate at the international level and would need a set of criteria determining how to choose among applicants for payments. As mentioned above, a credit system could possibly be established in order to help choose the projects with the best cost-effective ratio. However, concerns were raised that such a fund could simply replicate the existing GEF structure. Furthermore, the question of the possible inefficiency of a centralised institution was mentioned. Nevertheless, it was generally agreed that a prototype fund might be established as a pilot project, and could operate in the beginning without a common metric.

In addition, an **open marketplace** was suggested as a more efficient way to trade biodiversity-related services. Reference to the existing Ecosystem Marketplace of the Katoomba Group was made, acknowledging the fact that more competition will be needed. The question of whether or not such a marketplace is more efficient than a fund (because it brings sellers and buyers directly together, and because no common metric is needed) was controversial. Further research on how to improve the existing efforts of the Katoomba Group was considered necessary. As a variant of the marketplace, an auctioning platform comparable to 'ebay' was suggested.

Finally, the group also raised the issue of the form in which payments are to be made. Money as a currency will often be the easiest in terms of processing, but might not always be the most appropriate. Buyers and sellers may have their particular preferences. Suggested payment vehicles included: money, debt-for-nature swaps, infrastructure projects, knowledge transfer, institution building, and balance of payments support⁹.

IV.6 Presentation of Breakout Groups and Discussion

Initial report back

At the end of the first day of the workshop, the participants reported back to the plenary to communicate the initial findings of their breakout sessions. This brief assembly served as a means for the breakout groups to share their views with all of the participants and address any potential questions and/or concerns. During this very short session, not much discussion was generated as most of the time was devoted to having a rapporteur present the work of each working group. The main issue that was raised relating to all of the groups was the inherent difficulty in adequately valuing and comparing biodiversity services, due notably to the very site-specific benefits that biodiversity generates.

Final presentations and immediate reactions

The morning of the second day was devoted to further work in the breakout groups, followed by reports and discussion in plenary. With the support of a projector, the rapporteur for each group summarized the main points discussed in the breakout group in front of the plenary. A summary of these presentations is provided in annex IV.

The presentation from the **biodiversity offsets** group generated some strong reactions. Several participants expressed concern with regards to whether this mechanism should be included in the IPES discussion. The

⁹ The presentation prepared by group 4 is found in annex V.

‘ecological sense’ of biodiversity offsets was questioned, with some participants noting the potential risks involved in using offset as a means of scaling up PES to the international level, both in terms of social equity and environmental effectiveness. Others re-iterated the view that offsets should be considered only as a last resort, once other options for conservation have been exhausted.

Some members of the offsets breakout group responded that the mechanism could be considered as a last resort, in terms of mitigation efforts, but that offsets could also help integrate conservation into development policy by minimizing trade-offs. Furthermore, it was suggested that offsets can be considered relevant in the IPES discussion as they involve direct payments for the delivery of (compensatory) ecosystem services. Nevertheless, some participants remained uncertain about how offsets could bring additional resources to conservation efforts, suggesting a need for more awareness-raising about the nature of this mechanism.

As was the case with offsets, the **certification** group also faced questions with regards to the relevance of the mechanism to the IPES debate. It was agreed that the use of eco-labelling for biodiversity-friendly products and services was an indirect form of PES. Others noted that certification could also be applied to geographical regions, such as protected areas, as a means of distinguishing between varying levels of service provision (especially for biodiversity). However, it was also noted that some governments may prefer to engage in more direct forms of payment, rather than support indirect mechanisms such as certification.

For the group looking at **inter-linkages**, most of the concerns raised by the participants related to institutional challenges involved in seeking more cooperation between MEAs. Firstly, doubts were expressed about the extent to which biodiversity conservation could or should be integrated into the UNFCCC. More generally, MEAs were described as diverse, implying that the type of participation achieved in one convention does not necessarily translate well into another. Some suggested a focus on the cooperation process as opposed to awareness building.

Nevertheless, it was suggested that further research should be carried out on the geographical overlap of ecosystem services. Assembling data and mapping the areas with the greatest overlap could facilitate the prioritisation of PES. However, any resulting bundling of ecosystem services could likely entail trade-offs in the implementation process, meaning that the optimal land use may not be achieved.

Following the **blue skies** presentation, participants reacted to the two proposed mechanisms: a biodiversity cap-and-trade system and a new prototype biodiversity fund. With respect to a global cap-and-trade regime, some participants questioned how this would differ, in practice, from biodiversity offsets. An idea presented was that of having a global cap-and-trade regime that could be implemented first by working with protected areas. This scheme could integrate a ranking system for these areas and would encourage rich countries to invest in the South. Others pointed out that Parties to the CBD may not be ready to engage in such discussions. Nevertheless, the possibility of experimenting with pilot projects based on voluntary participation was considered promising.

Concerning a new prototype fund, some participants felt that there was an opportunity to tap new resources. Others pointed out that efforts to create a new fund would need to start by better understanding the nature of the existing demand. Indeed, several participants expressed concern about how new money could be raised to support such a fund, and how the fund would differ from existing mechanisms (e.g. GEF). Others felt that existing resources were sufficient and that they simply needed to be used more efficiently. It was suggested that any new fund would need to ensure long-term funding in order to be considered innovative. If not, it would be nothing new.

The risks of having too heavy a bureaucratic process was seen as a significant hurdle to the effectiveness of a new IPES fund. In light of this issue, it was suggested that a fund could take the form of an ‘umbrella’ organisation that could oversee subsidiary endowments. Having a small structure with specifically targeted objectives that could grow with increasing availability of funding was seen as a potential starting point. It remained to be determined which institution(s) could house such a fund. It was also suggested to pay more attention to utilizing market mechanisms such as auctions and/or calls for tender, and to explore the

feasibility of implementing a virtual marketplace, as alternative, potentially more efficient mechanisms for allocating payments to service providers.

Marketing efforts were seen as an integral part of the quest for new funds. Approaching relevant experts in the business community would be an appropriate first step. One strategy expressed was to communicate the many benefits of World Heritage Sites in order to show what services were being provided, thereby raising general awareness on the value and cost of maintaining select ecosystems.

G. Session V: A Plan of Action

Objective of the session

The aim of this final session was to draft a plan of action for effectively scaling up PES to the international level. This plan should attempt to cover necessary additional research, possible pilot projects, promotion, and capacity building. The organisers asked the participants to propose concrete ‘deliverables’ related to these four points. Also, the discussion aimed at identifying who (individuals and organisations) could undertake these next steps and in what time frame it would be done. As the discussion evolved, the plan of action was progressively drafted. For this, agreed-upon proposals were written down and projected for all the participants to see¹⁰.

Main points raised and discussed

The original plan for the session was to address each of the four working groups successively. Despite a lack of consensus on the inclusion of biodiversity offsets and certification into an eventual plan of action for IPES, several participants were keen on developing the linkages between IPES and offsets/certification. One argument presented related to the fact that offsets and certification were already a part of existing PES schemes, such as the one being implemented in Mexico. It was also stated that both mechanisms could help design PES schemes, notably in terms of standardizing, measuring and ranking ecosystem services.

There seemed to be a consensus that the linkages between IPES and the use of both certification and offsets needs to be further explored through analytical research in order to address the potential risks that these mechanisms might present.

The discussion on the plan of action for exploring inter-linkages between ecosystem services was relatively brief. However, some thoughts were exchanged with regards to finding ways of including biodiversity considerations into the UNFCCC framework. Again, the opportunities presented by the ‘avoided deforestation’ issue in terms of being a significant component of the second round of negotiations of the Kyoto Protocol were evoked. It remained to be determined how this discussion could be influenced to make the case for integrating biodiversity conservation.

More generally, it was suggested that further research on the inter-linkages between ecosystem services could be done through mapping efforts, building on work currently being undertaken by WWF and others.

Concerning the cap-and-trade scheme for biodiversity discussed in the ‘blue skies’ group, there was interest for developing further analytical work that could highlight the lessons learned from experiences with carbon. Such research would help define what exactly should be capped and who the traders might be. It was argued that quantitative measurements for the appropriate cap needed to be complemented by qualitative considerations on the non-use values of ecosystems. Thought also needs to be put into the inclusion of non-point sources of biodiversity-related ecosystem services. It was cautioned that any mention of the term ‘protocol’ could raise some red flags among parties negotiating within the CBD.

¹⁰ The plan of action that was drafted during the session can be found in annex VI.

For the proposed prototype fund, discussion revolved mostly around the issue of ranking the ecosystems to be taken into consideration for IPES. While it was suggested to develop such a system on a country-by-country basis, others found this to be a difficult endeavour to undertake, especially in areas where national governments do not have much influence on land-use decisions. It was therefore suggested to focus more on sub-national units and on different projects within a given country. The use of auctions was offered as an alternative to ranking.

Main conclusions

The main conclusions to the action plan session can be found in annex V. This document reflects the proposed next steps to be taken on both the analytical and empirical fronts. Participants were asked to express their personal interest or the interest of their organisations in getting involved with specific follow-up action. UNEP offered to coordinate these efforts. After having listed other potential parties that were not present at the workshop but whose work was relevant to the IPES agenda, participants identified several events where outreach and awareness building could be carried out. Finally, it was suggested to bear in mind upcoming COP meetings of the UNFCCC and the CBD as well as the 2008 World Conservation Forum as potential targets for planning the future of IPES.

H. ANNEX I: Workshop Agenda

Tuesday, 12 September 2006

08:15-09:00 Registration, coffee, and mingling

Session 1: Welcome remarks

- 9:00-09:15 Official welcome
Hussein Abaza, Chief, Economics and Trade Branch, UNEP.
- 9:15-9:35 Why have UNEP & IUCN, convened this technical discussion?
Fulai Sheng, Economics Affairs Officer, Economics and Trade Branch, UNEP.
Josh Bishop, Senior Advisor, Economics and Environment, IUCN.
- 9:35-9:45 A word from the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety of Germany
Axel Benemann, International Nature Conservation Activities
- 9:45-10:00 Why is the CBD Secretariat closely cooperating with the organizers?
Markus Lehmann, Economist, Social, Economic and Legal Affairs, CBD Secretariat.
- 10:00-10:15 Presentation of the background paper on IPES
Tobias Leipprand, Economics and Trade Branch, UNEP.
David Huberman, Economics and Trade Branch, UNEP.
- 10:15-10:30 Questions and discussion
- 10:30-10:45 Coffee break

Session 2: International PES: major gaps and needs

Facilitator: *Sven Wunder*, Scientist, Center for International Forestry Research (CIFOR), Brazil.

The aim of this session is to establish a common ground for the further discussion of IPES and identify the opportunities for scaling up PES to the international level, building on the findings of the Millennium Ecosystem Assessment (MA) and other environmental assessments.

Definition of IPES: For the workshop, we suggest to define IPES as being “a voluntary, international transaction where at least one payer makes a payment to at least one provider, conditional on the provision of a well-defined, continuously provided ecosystem service or of an ecosystem-use likely to secure that service (i.e., use of land and water/marine ecosystems).”¹¹

10:45-11:45 Key questions:

- 1) What are the key international ecosystem services (biodiversity, water, scenic beauty, carbon) that should be the focus of this discussion and why, taking into account the findings of the MA and other information?
- 2) How do these ecosystem services relate to each other and to biodiversity conservation? How can we bundle services together (under a biodiversity umbrella)?

¹¹ Adapted from Wunder, S, *Payments for environmental services: Some Nuts and Bolts*, CIFOR, Occasional Paper No. 42, 2005; and incorporating input from Stefano Pagiola, Paul Ferraro, Pablo Gutman and Michael Jenkins.

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- 3) What are the major opportunities for scaling up PES to the international level (building on carbon trading)?

Session 3: Taking stock: lessons from experience with PES for international schemes

Facilitator: *Pablo Gutman*, Senior Policy Advisor, World Wildlife Fund (WWF).

The aim of this session is to take stock of the existing analytical work on IPES and identify the most relevant parameters, pre-requisites and/or performance criteria for successful IPES, building on experience to-date with carbon markets and national PES schemes.

11:45-13:00 Key questions:

- What are the key results from existing analytical work on trans-boundary and international payment systems?
- What are the results from existing analytical work on PES generally that are most relevant to trans-boundary and international payment systems?
- What are the lessons from existing PES field projects at the local and national levels that are most relevant to trans-boundary and international payment systems?

13:00-14:00 Lunch

Session 4: Developing IPES: key challenges (plenary and breakout groups)

Facilitator: *Stefano Pagiola*, Senior Environmental Economist, The World Bank.

The aim of this session is to work on defining an international framework for PES schemes by identifying the most promising IPES mechanisms and exploring the main challenges that could arise when designing and implementing them.

14:00-15:30 Plenary discussion: Key questions

- What are the most promising types of trans-boundary or international payment systems or instruments to be further explored?
 - Which types of ecosystem services would be covered?
 - In which priority locations?
 - How would the system work?
 - Why is this particular system proposed?

Jointly select the four most important IPES schemes (e.g. ‘piggy-backing’ on the carbon market, expanding eco-labelling, biodiversity offsets, international taxation, bio-prospecting rights) for further discussion in breakout groups.

15:30-15:45 Coffee break

15:45-17:30 Breakout groups: Key questions (for each of the four selected schemes)

What are the key challenges in further developing such an IPES system?

b) Suggested questions for the supply side:

- Who would supply the service(s) and how?
- How can the selected ecosystem services be measured, and how can additionality above baseline condition be ensured?
- What are the constraints and opportunities for bundling related ecosystem services?

- Are there potential leakage effects and how would they be dealt with (i.e. supply of ecosystem services in one location at the expense of another as land-use pressure moves elsewhere)?
- c) Suggested questions for the demand side:
- Who are the potential long-term buyers of the service(s) and why would they pay (donors, businesses, NGOs)?
 - Is there an existing voluntary demand for the selected ecosystem services? How can this demand be consolidated?
 - Is there a need to further create demand? If so, how can this be done (marketing, command-and-control)?
- d) Suggested questions regarding institutions:
- Where/how would buyers and sellers come together to contract deals, and which 'currency' should they use (money, technology, goods, institutional support)?
 - How can efficiency be maximized in allocating IPES (e.g. auctions vs. tenders)?
 - Are there special requirements with respect to property rights/land tenure that would limit application of the system in certain countries/regions?
 - What are the potential distributional impacts (i.e. favourable or undesirable equity effects) and how can they be mitigated?
 - What are the requirements with regard to capacity building, including capacity for enforcement, monitoring and evaluation?
 - Are there potential controversies with regard to national sovereignty?
 - What are the potential interactions with trade policy?

17:30-18:00 Initial report back by breakout groups (questions and suggestions)

Facilitator: *Alice Ruhweza*, East and Southern Africa Network Coordinator, the Katoomba Group.

20:00 Joint dinner (Go-Dutch)

Wednesday, 13 August 2006

Session 4- continued: Developing IPES: key challenges (breakout groups)

09:00-10:00 Breakout groups: (continued)
 See key questions Session 4 (day 1)
 Preparing presentation of results for the plenary

10:00-10:15 Coffee break

10:15-12:30 Presentations by breakout groups and plenary discussion

Facilitator: *Wendy Proctor*, Stream Leader, Commonwealth Scientific and Industrial Research Organisation, Australia.

12:30-13:30 Lunch

Session 5: A plan of action

Facilitators: *Fulai Sheng* and *Josh Bishop*

The aim of this session is to draft a plan of action for effectively scaling up PES to the international level. This plan should cover necessary additional research, pilot projects, promotion and capacity building.

13:30-15:45 Key questions

- **Additional analytic work** – What additional analytical work is necessary for developing IPES? Who will be prepared to participate in this additional research effort? How should such targeted additional efforts be coordinated?
- **Pilot projects** – For developing IPES, what types of on-the-ground pilot projects can we initiate? Which and how many countries already or potentially supplying desired ecosystem services could be involved in such pilot projects? Which donor institutions, private companies, and NGOs could we approach on the demand side for such pilot initiatives? How should such activities be coordinated?
- **Raising Awareness** – How useful would it be to promote IPES generally? If such efforts are desirable, which forms should they take and how should they be organised? Who is already planning such efforts and who would be interested in participating?
- **Capacity Building** – How can the issue of capacity building be addressed efficiently and effectively? What are the specific needs that have already been identified? How can capacity building elements be integrated into on-the-ground pilot projects? Where are the centres of excellence in the field of capacity building?
- **Other** – What additional roles can international organisations and other actors play?

15:45-16:15 Coffee break/drafting of a plan of action

Session 5 - continued: A plan of action

16:15-16:45 Presentation and discussion of draft plan of action and immediate follow-up

Closing

16:45-17:00 ***Closing remarks and bidding farewell***

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J. ANNEX III: Participants' Answers to Session 4 Questions

Question 1: Which types of ecosystem services would be covered?

- conservation of genetic diversity/ of ecological resilience / of endangered species habitat
- services in working landscapes
- biodiversity arid + rangeland ecosystems
- focus on wetlands as integrators of BD (biodiversity), watershed and carbon services
- biodiversity conservation
- biodiversity, specially the ecosystem biodiversity
- biodiversity conservation of international importance
- wetland ecosystems that contain significant biodiversity and provide important local services as well
- biodiversity → habitat / international importance
- carbon
- ecosystem conservation + ?? → existence and option ??
- details to be provided by tender TOR of demanders
- intact ecosystems additionality
- improvements/ remediation 'like for like'
- what is "biodiversity"/ why conserve it? – indirect benefits , precautionary, existence/ ethics/ quality of life
- biodiversity → leads to + carbon+ water/ etc
- carbon sequestration
- BD conservation
- Carbon sequestration
- Wildlife conservation
- Start with carbon sequestrations – more well known and easier to sell to participants, climate change to important issue at present
- Combined carbon-biodiversity credits (→ avoided deforestation)
- Biodiversity offsets
- Carbon, biodiversity (indirectly)
- Biocarbon
- Carbon sequestration through good agricultural practices
- Water cleansing services
- Water regulation services
- Pollination
- Foundation of ecosystem services – biodiversity
- Transboundary watershed services
- Transboundary PES – wetland banking + headwaters protection + ecological reserve protection

Question 2: How would the system work?

How are we going to strike the trade-offs implicit in payment vehicle choice?

Premium?

Cost of compliance: - support small producers, certification, adopt GP

- lack of domestic demand in developing countries
- WHO certifies?
- Certification, ecolabeling schemes
- Eco-labeling is an effective market-oriented tool to achieve the goal of IPES of biodiversity, other schemes seem to be difficult to be implemented at international level
- How would it work? Biodiversity offsets organized by a broker to reduce transaction costs
- Expanded eco-labeling to ensure that producers use biodiversity friendly practices
- Demand: tenders for providing ecosystem service, calls by private sector, conservation NGO and interested government agencies
- Supply: entrepreneurs providing ES proposals
- How: open trading platform for matchmaking
- certification of biodiversity-friendly bio-fuels
- focus on Micro, Small & Medium (MSM) sized business (over 90% of all economic activity)
- How can commercial banking sector be convinced to finance “MSM” working with biodiversity so as to reduce destruction and promote sustainable use?
- What is the role multilateral financial institution?

Voluntary → Regulatory, conserve existing ecosystem or improve things

- biodiversity bilateral / multilateral to suppliers transfers with regional coordination institutions
- a tobin style tax based on externality valuation
- when there is no discreet group of beneficiaries to negotiate with (private) international public institution such as the WB can act as on behalf of the world/ global commons
- new financial resources in addition to public sector (traditional) funding, ODA etc
- regulatory frameworks/ voluntary → create demand
- method to link international payments to local, regional or national regulatory requirements that create demand framework
- new voluntary schemes that leverage & trigger ? funds from existing sources
- coordination between MEAs and issues
- without MEAs at global level

Voluntary “CSR” → role of regulation, “greenwash” concerns, equivalence

Regulatory “Kyoto”

- biodiversity offsets – designed to deliver multiple ES outcomes (maybe ES providers opportunities)
- financed: biodiversity offsets
- multinationals signing agreements of responsible behavior (child labor parallel)
- biodiversity offsets
- BD offsets – begin voluntary programmes to demonstrate methodology + success → lobby, good to put in place application regulation
- Conservation banking-broker a system of credits for banks created by projects developers

Offset, Indirect Damage

- Biodiversity offsets with option of partial off-site (international) compensation
- Biodiversity offsets/ conservation banking
- Who will pay? Idea of international biodiversity offsets – managing private sector impacts to more global benefit
- International clearing house
- Biodiversity banks
- Credit-trading

CAP + TRADE “Kyoto- Like” for BIOD

- convince Gates Foundations to invest in pro-poor biodiversity PES – incentives for community based conservation
- payment for adjustment costs
- promotion of water quality and quantity as well as ecosystems required for this provision and biodiversity (bundling with biodiversity)
- biodiversity conservation
- recreational values
- financed: transboundary watershed services – water users (or floodable regions) through waterfees
- (private example) piggy backing on transboundary water credit schemes and bundle ES + biodiversity “behind the scenes”
- Kyoto mechanisms
- Carbon: CAP + Trade
- How: biocarbon – look for sustainability managed forestry asset that can deliver BD and carbon benefits + help to work → responsibility afforestation of degraded landscape to deliver piggy-backed benefits
- Kyoto “ADD-ON”
- Kyoto extension to avoided deforestation
- National taxes + international transfer (ultimate goal: international agreement / scheme)

Brokering deal: trust, transaction cost

- to determine system : need detailed info on what demanders want and what suppliers want (supply side might differ for different region, demand side needs regulations)
- multi-stakeholders process to agree: principles, success criteria – for PES initiatives

K. ANNEX IV: Questions for Breakout Groups

Key questions for the groups working on **biodiversity**:

- How can we get resources (money)? – voluntary vs. regulatory mechanisms
- How do we use these resources?
 - What can they do?
 - Conservation of existing ecosystems?
 - Long term funding?
 - What can they not do?
 - What perverse impacts?
 - Environmental (leakage)
 - ‘Greenmail’ (ecosystems held hostage)
 - Equity

Key questions for the group dealing with **carbon**:

- How to increase funding through this channel?

-
- How to cover more areas?
 - Relax/change Kyoto restrictions?
 - Are there ways to generate more joint benefits? Are there tradeoffs?

L. ANNEX V: Presentations by Breakout Groups

Group 1: Biodiversity offsets

Rapporteur: Josh Bishop

Any new work on biodiversity offsets should start from the principle that offsets, where appropriate at all, should only be considered after all efforts have been exhausted to avoid, minimize and mitigate damage to biodiversity. New work should refer to existing international policy guidance, where relevant (e.g. CBD/COP9), and should seek to complement not substitute for other related initiatives (e.g. BBOP).

1. Analysis

- a. Develop conceptual framework to situate biodiversity offsets in the context of PES and their relevance for IPES.
 - i. To what extent do offsets fit into the PES framework (i.e. a payment for a positive environmental externality)?
 - ii. To what extent can offsets generate new/additional funding for conservation or result in more/better conservation outcomes?
 - iii. What are the main risks and potential adverse impacts of biodiversity offsets?
 - iv. To what extent can offsets be used to address environmental legacies (e.g. ‘orphan’ mines)?
- b. Develop (or adapt) methods for assessing habitat disturbance, equivalence and mitigation ratios *at an international scale*, in both ecological and economic terms.
 - i. How to measure biodiversity ‘debts’ and ‘credits’ at an organizational level?
 - ii. How to assess/ensure no net loss in voluntary (‘uncapped’) biodiversity offset schemes?
 - iii. How to ensure that offsets are socially equitable?
 - iv. Can international offsets ever make ecological sense?
- c. Review mechanisms and principles to ensure the credibility, longevity and financial sustainability of biodiversity offsets.
 - i. Trust funds
 1. What role for the developer?
 2. What role for NGOs/foundations?
 - ii. Legal restrictions on resource use (e.g. easements) and other contractual mechanisms – potential for international support?
 - iii. Standards and verification – how to ensure international credibility and comparability of biodiversity offsets?
- d. Review relevant policies and experience of biodiversity offsets in:
 - i. MEAs (provisions and implementation)
 - ii. National legislation and sub-national codes
 - iii. Industry impact assessment and mitigation

2. Pilot projects

- a. Support the Business and Biodiversity Offsets Program (BBOP)
 - i. Explore opportunities to internationalize offsets

3. Awareness raising

- a. Publish analytical work (see above)
- b. Convene international expert/technical meetings to exchange information on the use of biodiversity offsets
- c. Disseminate information about biodiversity offsets to national focal points and Secretariats of the CBD and other MEAs, as well as other concerned stakeholders including the private sector

4. Capacity building

- a. 'Training begins at home' – UNEP, IUCN and others may want to participate in offset reviews/pilots.

5. Other (institutional roles)

- a. UNEP, IUCN and others could coordinate analytical work
- b. Explore the potential interest and contribution of the development assistance community to the use of biodiversity offsets
 - i. OECD/DAC could promote a policy of no net loss (or net positive impact) of biodiversity for bilateral-aid-funded infrastructure investments in developing countries
 - ii. Share the experience of the World Bank with respect to biodiversity offsets for development projects

Group 2: Certification

Rapporteur: James Griffiths

1. Background

- Certification involves third 3rd party verification of production practices
 - Development of production standards
- Increasingly include biodiversity benefits
 - Since late 1980's organics, forestry, fishing, eco-tourism
 - Work starting on palm oil, soya.....but what about biofuel crops?
- Increasingly developed through multi-stakeholder processes
 - Independent auditing
 - Use of label or eco-label
- Business to business "responsible procurement"
- Market differentiator with consumers in developed, wealthy economies (organics UK, FSC Switzerland)
 - "Soft" policy –informal, defacto regulation
- Can become formal if adopted by Governments e.g. government procurement of forest products

2. Problems/Limitations

- Certification is **NOT** a stand alone solution
- Impacts on biodiversity conservation, sustainable management and use
 - Forests – 15 years 7 % area 25 % production primarily in richer countries so becoming mainstream
 - Is it delivering real biodiversity benefits?
 - Under performing against expectations!
- Under funded
 - Certifiers/auditors – rather than certification systems – make the money
 - Users - short term to no premiums...so value chain margins are not consistently enhanced
 - Systems are "grant" dependent
- Provides customer and market access benefits for large companies/resource owners
- SME, community asset owners in developing countries lack capacity or resources to access these systems
- ISO work on biodiversity limited to standards for environmental management systems – ISO 14000 is NOT a performance standard
- Conflict between some stakeholders which support competing systems FSC v PEFC
- Eco labels lack critical mass or strong promotion push to create a market pull effect
- Fraud/Credibility e.g. organics
- Harmonisation of multiple standards & systems

3. Recommendations

- Funded needed for
 - Testing/proof for biodiversity benefits

- Sustainable funding base for certification systems
- Quality assurance – checking for fraud
- Awareness and capacity building in developing countries
- Involvement in standard setting
- Seed funding to adopt standards and access systems/eco-label
- Supply chain coordination and more effective marketing

4. Another Big challenge

- Expansion of biofuel crops impacts on biodiversity (and food security?) could be significant
- Renewable energy targets set by Governments (EU, Malaysia) could have perverse biodiversity impacts
- Sustainable production standards for biofuels would then allow third party verification

GROUP 3: THE INTER-LINKAGES APPROACH

Rapporteur: Anantha Kumar Duraiappah

1. There is a high degree of inter-dependency between biodiversity and many ecosystem services which are of critical value to human well-being. This therefore offers many opportunities to conserve and support the sustainable use of biodiversity through the payments for these critical ecosystem services. The ecosystem services that offer immediate synergies are:
 - a. Carbon
 - b. Water related services
 - c. Soil formation
2. A possible solution is through bundling of these services and implementation recognizing different buyers for different services. So this does not imply one buyer but a multiple of buyers for these different services. But the end affect is a joint contribution towards the conservation and sustainable use of biodiversity.
3. The caveat is that the design of a specific service does not cause deterioration of another service. Therefore the bundling implementation approach requires careful design of the IPES for the various services.
4. This approach can provide economies of scale in reducing transaction costs as well as reduce the probability of unintended negative consequences of a specific service market on other services and therefore other sellers and buyers.
5. To link development programs like employment generation programs to initiatives that are indirectly linked to biodiversity conservation, for example like the Working for Water that works towards removing invasive species.

Additional Analytical Work

1. Making the links and inter-dependencies among ecosystems services and biodiversity. Building on the MA work.
2. Establishing benchmarks, defining thresholds
3. Making the links with well-being, the different users and sellers and the impacts of integrated bundling on these agents.
4. Cost-benefit analysis of integrated approach and single service approach
5. Analyzing demand for ecosystem services and supply potential and ways and means for stimulating both sides of the equation
6. The types of institutional mechanisms (eg cap and trade) to facilitate the product and the types of organizations to implement the payment.

Pilot Projects

1. To identify successful projects and use these as basis for developing new projects
2. Implementing a coordinated and related set of pilot studies addressing this integrated bundling approach.
3. To use existing projects and exploring the possibility of integrated bundling. Eg. The carbon

Building Awareness

1. Getting the relevant MEA secretariats and processes together and raising the awareness of the benefits of working together for developing IPES.
2. Getting the national MEA focal points together with national development and finance authorities and building the awareness of potential development, conservation and sustainable use benefits.
3. Marketing strategies to raise awareness of biodiversity related services to the general public.
4. To raise awareness of the private sector of business opportunities.

Capacity Building

1. Build capacity of the integrated bundling approach at the decision making level e.g. parliamentarians, development agencies, bureaucrats
2. Build capacity of the integrated bundling approach of the implementation level based on the subsidiarity principle.

Other

1. Understand phases – policy, implementation, marketing, public awareness, marketing etc.

Group 4: Blue Sky

Rapporteur: Paul Ferraro

(1) Cap and Trade: Biodiversity

Discussion:

Just language or actual cap and trade system? How one might operationalize? Feeling among some: there needs to be a regulatory basis to induce demand (scarcity). Everyone agrees this is not straightforward: measurability/metric (dimensions?), ability to enforce and monitor, cedes control over equity issue to market, etc. Can it fit in existing frameworks? Fundamental question: Can we commodify biodiversity so that it can be regulated on an international scale and so that some type of constructed market can be established?

Action point:

- A) Research with involvement from key stakeholders (geographically, sectorally).
- B) If research is promising, pilot projects among interested nations as second step.

(2) Voluntary approaches and private sector approaches

Discussion:

- Private sector involvement. Existing frameworks encourage it, but demand lacking. Information constraints on both sides (survey, information campaigns).
- Prototype fund that pays for biodiversity (not clear if independent or within existing institution; fast, flexible). No fund does this. Deliberately sets out to prime the system. Don't need uniform metric to start.
- How to tap funds (induce demand)? Marketplace, prototype fund.
- How to establish a marketplace through which buyers and sellers can connect and obtain "good" deals? How to improve existing designs? What is mode by which supply will fulfill the contractual obligations?

Action point: Establish prototype fund. Fund will focus on IPES. Experiment with different brokers, and different contracts and contract allocation mechanisms (possibly also with fundraising techniques). Use existing funding sources and build on existing initiatives. {would require research and discussion as part of project design}

M. ANNEX VI: Plan of Action

Offsets and certification

Clarify relevance of offsets and certification to PES frameworks, and look to what extent offsets and certification could be used as payment mechanism for PES.

Refer to BBOP

Stephanie Engel, Eduard Niesten, Randall Kramer, James Griffiths, Tim Swanson, Joshua Bishop

Linkages for IPES

Explore interdependencies between ecosystem services (biodiversity as such and as basis for other services, i.e. carbon sequestration, hydrological services and soil formation); make the case of benefits of joint provision

Mapping/overlapping

Worldbank, TNC, WWF

Paul Ferraro, Cecilia Repinski, Wendy Proctor, Carlos Munoz, Nicola King

Get feed-back from COP (*Robert Tippmann*) and use input

Prototype fund at the WB/TNC for avoided deforestation (still in project proposal stage); may need input in the future

Cap and Trade (Kyoto-like mechanism on biodiversity)

needs to be complemented with qualitative approach; estimate value of biodiversity services

Commission a paper laying out the pros and cons of cap and trade for biodiversity (capping what, trading with whom)

Specify some targets at country level

Put together review on lessons from Kyoto, compare to the biodiversity case; collect specific ideas and identify open issues

Incorporate non-point sources of biodiversity loss into the analyses

Wendy Proctor, Timo Goeschl, Stephanie Engel, Pablo Gutman, Carlos Munoz, Robert Tippmann, Nicola King, Stefano Pagiola, Joshua Bishop

Institutional Frameworks

A. Prototype Fund (that would buy environmental services)

Write up proposal (or rather think-piece?) and answer necessary questions (e.g. why should buyers go through the fund and not buy directly); focus on long-term funding

Clarify if available funds are used appropriately for biodiversity-related IPES (use existing funding with new criteria)

Create index and rank countries (regions?); on regular basis to raise demand and interest; or rather rank project applications (leave this to research)

Check if country-level targeting of instruments is appropriate, or is another unit more useful

Who participates?

B. Virtual Marketplace

Could this be alternative to prototype fund?

Use to test schemes

Eduard Niesten, Robert Tippmann, Paul Ferraro, Phil Franks, Pablo Gutman, Stephanie Engel, Markus Lehmann, Wendy Proctor, Joshua Bishop

Pilot Projects

Linkages:

Float concepts with Katoomba Group and other meetings (WWF Vienna)

Adapt ongoing WWF (and other managers of conservation projects) projects to relate to IPES to test some of the proposals on the table, *Pablo Gutman*

Pick-up on lessons from other ongoing projects (iied, WCS, CI, WWF, UNEP), for biodiversity

Put together the cases more effectively for IPES (opportunity *and* obligation) *Eduard Niesten, Phil Franks*

Institutional Frameworks (cap-and-trade, fund, marketplace)

Targeted approach to potential buyers (business sector, conservation organisations, governments) to understand the demand better (while gathering results on the conceptual work)

Fulai Sheng (with UNEP FI, eventually), Pablo Gutman, David Richards (as reviewer from business perspective), Robert Tippmann (input on survey design), Alice Ruhweza, Wendy Proctor.

Awareness Raising

Opportunities to feed into ongoing Kyoto negotiations/process; highlighting good practice, standards; get involved in the avoided deforestation discussion and make the case for biodiversity; go into COPs (side-events); national “homework” within governments

Provide input into relevant MEA processes and to respective national focal points

After the workshop:

Gather from participants what they are already working on *UNEP/IUCN*

Target points:

World Conservation Forum 2008

CBD COPs: next one in Germany (Axel, Markus)

Bio-Econ, Sept 2007

ISEE 12/2006 India (Wendy)

Climate COP November 2006, Nairobi (Alice)

Ramsar Convention 2008 South Korea

Interested Organisations to join UNEP/IUCN, CBD:

ISEE (Peter May)

IFC

Forest Trends

Katoomba Group

CIFOR

CI, CELB, CSP

Providers: RUPES, SANBI

Global Mechanism (Robert Tippmann) under UNCCD

Governments

Protected area agencies

OECD (Carlos Munoz)

FAO

TNC