UNDP Project Document

Forest Trends

United Nations Development Programme

Global Environment Facility

Institutionalizing Payments for Ecosystem Services

Project Summary

Around the world, widespread interest is emerging in markets and payment schemes that reward actors who conserve or restore the ecosystem services (PES) provided by terrestrial, freshwater, and marine ecosystems, while providing a viable and sustainable source of livelihood for rural communities. The *overall objective* of this project is to establish institutional capacity for expanding systems of payments for ecosystem services to a scale sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services and on achieving the Millennium Development Goals. The principal *outcomes* of the project are:

- Timely, relevant market information for PES available to all stakeholders globally, through The Katoomba Group's Ecosystem Marketplace;
- National champions and stakeholders of PES in Eastern and Southern Africa and Tropical America have improved capacity and access to technical assistance for institutional and policy development for PES; and
- Operational models and capacity to effectively design, establish and implement new types of PES for biodiversity conservation.

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ACRONYMS

APR	Annual Project Report
BBOP	Business and Biodiversity Offset Program
BD	Biodiversity
BDF	Business Development Facility
CATIE	Center for Tropical Agriculture Research and Education
CBD	Convention on Biological Diversity
CBO	Community-Based Organization
CCD	Convention to Combat Desertfication
CDM	Clean Development Mechanism (of the Kyoto Protocols)
CER	Certified Emission Reduction
CIFOR	Centre for International Forestry Research
CINCS	Climate Investment Network for Carbon Sequestration
CONAFOR	National Forestry Commission (Mexico)
DFID	Department for International Development (UK)
EA	Executing Agency
EIA	Environmental Impact Assessment
EM	Ecosystem Marketplace
EP	Ecoagriculture Partners
ES	Ecosystem services
EU	European Union
FAO	Food and Agriculture Organization of the UN
FONAFIFO	Fondo Nacional Financiamento Forestal de Costa Rica
FT	Forest Trends
GEF	Global Environment Facility
GTZ	Gesellschaftfür Technische Zusammanabeit
HSBC	Honk Kong and Shanghai Banking Corporation Limited
IA	Implementing Agency
IADB	Inter-American Development Bank
ICA	Incremental Cost Analysis
ICRAF	World Agroforestry Centre
IDRC	International Development Research Centre (Canada)
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IIED	International Institute for Environment and Development
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union
KG	The Katoomba Group
LULUCF	Land Use, Land Use Change and Forestry
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
NGO	Non-Governmental Organization
ODA	Overseas Development Assistance
OECD	Organization for Economic Cooperation and Development
PDF	Project Development Facility
PES	Payment for Ecosystem Services
PIR	Project Implementation Review
PRISMA	Programa Salvadoreño de Investigactión sobre Desarollo y Medio Ambiente

PROFOR	Program on Forests
PTA	Principal Technical Assistant
REBRAF	Brazilian Agroforestry Network
RECOFTC	Regional Community Forestry Training Centre (Thailand)
RCU	Regional Coordinating Unit
RUPES	Rewarding Upland Poor for Ecosystem Services
SANBI	South Africa National Biodiversity Institute
SIDA	Swedish International Development Agency
TA	Technical Assistant
TNC	The Nature Conservancy
TPR	Tripartite Review
TTR	Terminal Tripartite Review
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WWF	Worldwide Fund for Nature

SECTION I: Elaboration of Narrative

PART I. SITUATION ANALYSIS

Context and Global Significance: The Challenge of financing protection of ecosystem services

The work of the Millennium Ecosystem Assessment has confirmed the critical contribution of ecosystem services and biodiversity to human well-being and the economy, as well as ecosystem health. All ecosystems (forest, mountain, coastal, wetland, dry-land and agricultural land) provide a variety of ecosystem services. Ecosystem services like water supplies for human consumption and hydropower, climate stabilization, and storm protection, are increasingly recognized to have huge economic value. Maintenance of biodiversity is a central service of ecosystems. Motivations for biodiversity conservation also include spiritual and aesthetic values, as well as recognition of the existence values and rights of other species.

Table 1. Major Ecosystem Services

Purification of air and water
Regulation of water flow
Detoxification and decomposition of wastes
Generation and renewal of soil and soil fertility
Pollination of crops and natural vegetation
Control of agricultural pests
Dispersal of seeds and translocation of nutrients
Maintenance of biodiversity
Partial climatic stabilization
Moderation of temperature extremes
Wind protection
Support for diverse human cultures
Aesthetic beauty and landscape enrichment
Source: Daily, 1997
* Note that the Millennium Ecosystem Assessment also includes the “provisioning” services of ecosystems in producing food and raw materials not included here.

Historically, these ‘services’ were not in short supply. Hence they were worth little financially, and there were no markets or payments for these services. Protected areas and public regulation have been the tools to date focused on protecting key ecosystem services, in particular watershed protection and habitat for wild species. These have been financed principally by governments, non-profit foundations and, in developing countries, by ODA. However, the estimated level of financial flows from ODA, philanthropic and developing country public sources for biodiversity conservation has been stable or declining in the past decade, in the face of rising evidence of economic value of ecosystem services. The total is only several billion dollars annually, compared to vastly greater value of ecosystem exploitation—the value of primary forest exports only was worth $8 billion in that year (Scherr, White and Khare 2004).

As these ecosystem services become scarce (through degradation and rising demand), their value is increasing. Around the world, widespread interest is emerging in markets and payment schemes that tap new sources of finance, particularly private, to reward actors who conserve or restore the ecosystem services (PES) provided by terrestrial, freshwater, and marine ecosystems, while potentially providing a viable and sustainable source of livelihood for rural communities. PES offers an innovative approach to conserving threatened biodiversity by conferring market value to these services. However, the window of opportunity to influence the shape of these emerging markets so that biodiversity and livelihoods are genuinely improved is small and closing rapidly.

The Forest Trends broad types of ecosystem service payments can be categorized into:

- Public payment schemes to private land and forest owners to maintain or enhance ecosystem services;
- Open trading between buyers and sellers under a regulatory cap or floor on the level of ecosystem services to be provided (which function more like true "markets");
- Self-organized private deals in which individual beneficiaries of ecosystem services contract directly with providers of those services; and
- Eco-labeling of products that assures buyers that production processes involved have a neutral or positive effect on ecosystem services.

Ecosystem service payments include both monetary and non-monetary transactions (such as deals related to shifting property rights) between an individual (or a group of people) who provides services ("sellers") and an individual (or a group) who pays for maintenance of these services. The key characteristic of these buyer/seller transactions is that the focus is on maintaining a flow of a specified ecological "service," such as retaining clean water, biodiversity, and carbon sequestration capabilities. In order to ensure that the ecological service is indeed maintained—as buyers expect for their money—the transactions require regular, independent verification of sellers' actions and effects on the resources. In sum, the key attributes of ecosystem service payments and markets are that sellers (a) maintain specific ecological structures and functions, and (b) remain accountable to independent verifiers that the "service" being paid for is indeed being delivered.

PES take many, diverse forms, as illustrated in **Table 2** for biodiversity conservation.

Table 2. Types of Payments for Biodiversity Conservation

Types of Payments for Biodiversity Protection	
Purchase of High-Value Habitat	
Type	Mechanism
Private land acquisition	Purchase by private buyers or NGOs explicitly for biodiversity conservation
Public land acquisition	Public land acquisition
Payment for Access to Species or Habitat	
Research permits	Right to collect specimens, take measurements in area
Payment for Access to Species or Habitat	
Hunting, fishing or gathering permits for wild species	Right to hunt, fish, or gather designated species in designated times and places
Ecotourism use	Rights to enter area, observe wildlife, camp or hike
Payment for Biodiversity-Conserving Management	

Conservation easements	Owner paid to use and manage defined piece of land only for conservation purposes; restrictions are usually in perpetuity and transferable upon sale of the land
Conservation land lease	Owner paid to use and manage defined piece of land for conservation purposes, for defined period of time
Conservation concession	Public forest agency is paid to maintain a defined area under conservation uses only; comparable to a forest logging concession
Payment for biodiversity offsets	Developers or businesses pay for habitat restoration or protection as part of a voluntary or regulatory program to offset biodiversity impacts
Community concession in public protected areas	Individuals or communities are allocated use rights to a defined area of forest or grassland, in return for commitment to protect the area from practices that harm biodiversity
Management contracts for habitat or species conservation on private farms, forests, grazing lands	Contract that details biodiversity management activities, and payments linked to the achievement of specified objectives
Tradable Rights under Cap & Trade Regulations	
Tradable wetland mitigation credits	Credits from wetland conservation or restoration that can be used to offset obligations of developers to maintain a minimum area of natural wetlands in a defined region
Tradable development rights	Rights allocated to develop only a limited total area of natural habitat within a defined region
Carbon emission offsets with biodiversity co-benefits	Industries, consumers and others pay for land use-related offsets with high biodiversity benefits as part of a voluntary or regulatory program to offset their carbon emissions
Tradable biodiversity credits	Credits representing areas of biodiversity protection or enhancement, that can be purchased by developers to ensure they meet a minimum standard of biodiversity protection
Support Biodiversity-Conserving Businesses	
Biodiversity-friendly businesses	Business shares in enterprises that manage for biodiversity conservation
Biodiversity-friendly products	Eco-labeling
Biodiversity Conservation as part of other Ecosystem Service Payments	
Watershed conservation payments	Watershed management adapted for biodiversity conservation
Carbon emission offset payments	"Green" carbon emission offset credits

*Source: Adapted from Jenkins, M., S.J. Scherr, M. Inbar. Scaling-up Biodiversity Protection: Potential Role and Challenges of Markets for Biodiversity Services. Environment. July/August 2004. 46(6).

There may also be unique opportunities PES presents for poverty reduction and for engaging the poor although the challenges are significant. The poor, especially the rural poor, are highly dependent upon ecosystem services for their livelihoods and their well-being. They are also at much greater risk from deterioration of ecosystems that results in pest and disease outbreaks, flooding, drying up of water sources, air and water pollution, etc. Moreover, high levels of poverty are currently associated both with areas of globally high-value biodiversity, and also in highly degraded ecosystems. As analyzed in the UN Millennium Project Task Force Reports on Hunger and Environment, protection and restoration of ecosystems is critical to achieving the Millennium Development Goals. There are clear opportunities to address both poverty reduction and ecosystem protection/restoration through PES, particularly to finance the transition to more productive and sustainable agricultural production and natural resource management systems. Payments for ecosystem services can potentially be delivered even in localities that have such poor infrastructure that product markets are not financially viable.

It is important to note that low-income communities can also be harmed by badly designed PES, when they are asked to adopt land use or management practices that would undermine their livelihoods or where ecosystem management approaches are used that reduce their access to or quality of services. In many places, new values could lead to land grabs from more affluent interests. Without a dedicated effort PES markets will most likely bypass the poor.

Global Situation Regarding Payments for Conserving and Restoring Ecosystem Services

Across the world, in response to scarcity, innovation is leading to lots of payment schemes and nascent markets. Some are captured in a "Matrix of Ecosystem Service Markets" shown in **Annex 1**. This tool is designed for analysing and monitoring the contributions of PES to ecosystem conservation, and the needs of actors throughout the "value chain" for each of these systems.

The global economic value of ecosystem services is estimated in the trillions of dollars (MA 2005). Payments for protecting environmental services are developing unevenly around the globe. The most developed markets and payment systems are in North America and Europe, dominated by multi-billion-dollar public agri-environmental payments and public and private conservation easements. Land use-related carbon emission offset trading is currently worth less than $100 million. Several billion dollars are spent on watershed payments in developing countries, dominated by public agri-environmental payments in China (grain to green, etc.) (see ten Kate 2005). There has been extensive experimentation in Latin America with diverse types of systems (see Kaimowitz 2005, Sissel 2005). Developments elsewhere in Asia and in Africa are much less, although there is a large pipeline of projects ready to enter development from international development banks and funds (Booth 2005).

The group of international experts, including those who developed the 'matrix,' estimate that the annual value of PES could expand by at least another $1 billion in developing countries over the next decade. However, suffer common shortcomings:

- PES are developing and in a scattered way across the globe, therefore not benefiting from other experience;
- PES are developing through a project by project approach, rather than systemic or broader sectoral approaches;
- The models being developed are not deliberate in focusing on livelihood dimensions;
- Biodiversity conservation is not achieved satisfactorily in many models. There is relatively modest use of payments for biodiversity conservation in developing countries, largely due to methodological difficulties in setting targets and monitoring compliance and mobilizing

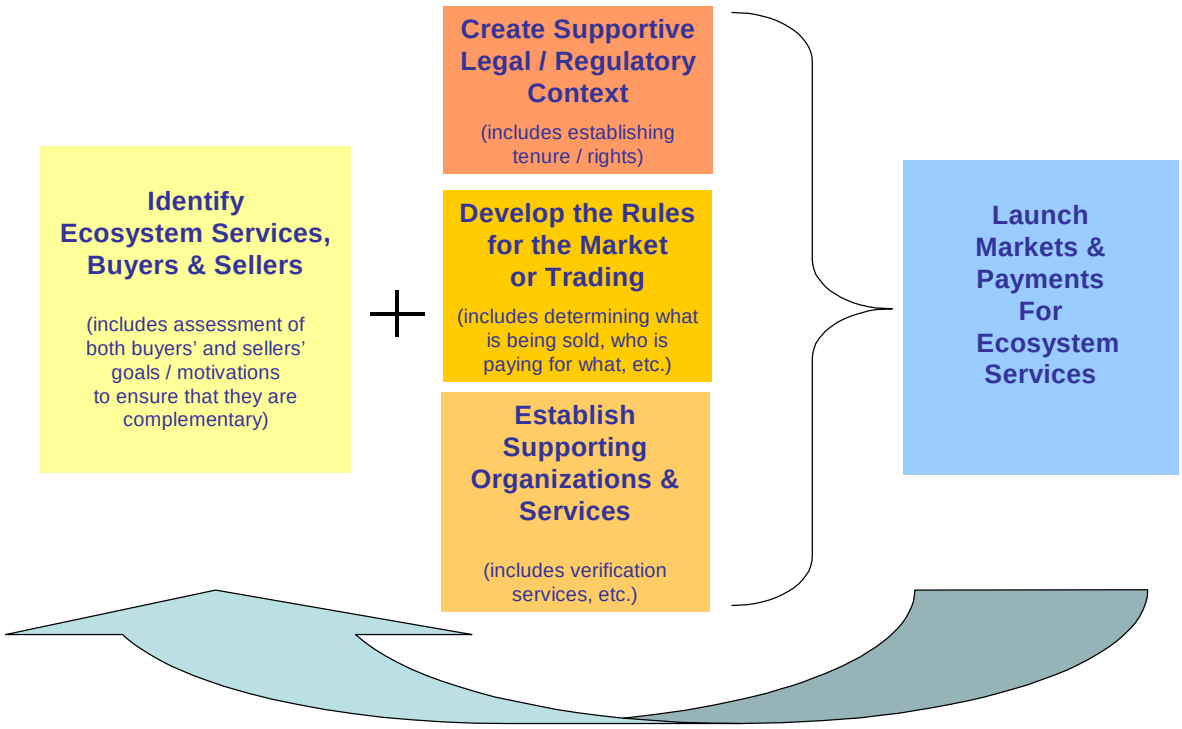
buyers. New approaches with great potential, such as having major development activities offset their unavoidable biodiversity impacts, also face lack of agreed "best practices."
- Among many there is concern or opposition that PES will evolve into instruments to privatize ecosystem services, rather than mechanisms to finance conservation stewardship as public goods.

Across the world, efforts to scale up PES face additional challenges, which will be deconstructed and discussed in detail in later sections:

- A shortage of willing and able buyers, particularly from the private sector;
- Difficulties creating the connections between buyers and sellers;
- Difficulties negotiating and structuring deals and markets;
- Difficulties mainstreaming PES into existing institutions and programmes;
- Revenues received from PES are not always sufficient to induce behaviour change;
- Lack of clear property rights for buying or selling ecosystem service stewardship services.

Finally, developing payments and markets for ecosystem services requires connections between a range of unusual partners from the environmental and research community, business and finance sectors, and government agencies. In many cases it requires developing new or modified institutions. **Figure 1** summarizes the key 'building blocks' required at the country level. First it is essential to identify who are the potential buyers (i.e., beneficiaries with incentive to secure services), sellers (who can deliver the ecosystem services) and what service exactly is being provided. Then the institutional elements must be put in place: creating the legal and regulatory framework required (which differs by type of system); developing the "rules" of the game (like definitions of the "service" to be paid for, eligibility rules, compliance requirements, risk-sharing, standards and guidelines), and establishing business and technical services for market actors (such as brokering, financial services, business and technical advisory services to buyers and sellers, market information services, ecosystem analysis and monitoring).

Figure 1. Building Blocks for Ecosystem Service Payment and Markets



Adapted from Brand, David. 2002. "Investing in the Environmental Services of Australian Forests," in S. Pagiola, J. Bishop, and N. Landell-Mills (editors). *Selling Forest Environmental Services: Market-Based Mechanisms for Conservation and Development.* London, U.K.: Earthscan Publications.

Key Stakeholders in Payments for Ecosystem Services

As with any established market, a mature system of payments for ecosystem services involves a large number of different actors. The principal groups involved in all types of markets are:

- Buyers of the ecosystem conservation service (direct or indirect beneficiaries, including the private sector):
- Sellers (land or resource owners or managers who provide stewardship services to protect or restore ecosystem functions);
- Service providers and project developers (brokers and financial intermediaries, business administrative and support services, technical services); and
- Policymakers/regulators (who establish rights to buy or sell stewardship services, rights over the resources themselves, contract rules, and—in the case of public payments—the detailed rules of eligibility, targeting, compliance, etc.).

Each of these stakeholder groups faces significant barriers to their more active participation in PES. The project has consulted widely with experts and actors in these groups (Waage 2005), and also undertook targeted assessments of private sector buyers (Mulder et al 2005; Inbar and ten Kate 2005), sellers in commercial forest enterprises (Halvesen 2005), community-based sellers (Bracer 2005; Borges 2005).

An international review identified more than 80 private company **buyers** of ES, and country interviewees indicated that hundreds more private deals existed for which there was no documentation. For buyers, the most binding constraints are lack of awareness of the role and value of ecosystem services to their business; unclear evidence of financial benefits; challenges of aggregating buyers to achieve ecosystem services at the necessary scale; a lack of internal capacity to plan and manage PES, and lack of clear, publicly-endorsed mechanisms for PES.

For **sellers** who are medium to large-sized landowners and commercial enterprises, the principal constraints are: lack of capacity to assess real market opportunities, lack of relevant business models, lack of technical assistance, and high transaction costs. For small-scale or low-income community producers, constraints include: difficulty in gathering relevant information on PES and PES program, lack of capacity to influence enterprise design, difficulty in protecting their own interests in negotiation the terms of PES, and barriers that limit their participation in the process of PES policy development.

Private and public investment institutions face other key barriers: lack of data on financial performance, lack of understanding of these markets, high regulatory and policy risks, lack of financial intermediation services and highly uncertain prices. Business and technical support providers and project developers lack a broad understanding of market opportunities, lack of practical models for structuring deals and contracts, and lack of access to training and capacity-building opportunities that would support dynamic field operations.

Finally, **policymakers and regulators** face other constraints: political and social conflicts over the use of market-like instruments, lack of policy and regulatory models for specific ecosystem management challenges, and lack of practical guidelines and advice on policy design and implementation.

The findings on stakeholder barriers are summarized in more detail in **Annex 2A**.

Box 1. The Business Case for Buying Ecosystem Conservation Services: Motivations for the Private Sector

Private and quasi-private companies can potentially mobilize vastly greater resources for biodiversity and ecosystem conservation than can tax-dependent governments or non-profit conservation organizations. Private companies have diverse motivations for becoming buyers of ecosystem services. Some are "philanthropic" buyers, but this does not seem to be a promising source for long-term growth in demand. Most must have some "business case" for becoming a buyer. Forest Trends survey of private sector buyers of ecosystem conservation services found diverse motivations:

1) To comply with required regulations;

2) To take advantage of new business opportunities anticipated (e.g., to earn money through carbon offsets or water market as financial intermediaries, or eco-enterprise operations, or enhance the financial value of land, forest or other assets belonging to the company);

3) To secure, sustain or reduce costs of key natural resource inputs required for business operations (such as uncontaminated water needed for a bottling plant, "charismatic" macro fauna needed for ecotourism operation, secure access to wild-harvested ingredients, or conservation of watershed to secure water flow regulation for downstream irrigators);

4) To reduce other business costs (e.g., where insurance costs, by reducing flood risks);

5) To maintain good relationships and reputation with key stakeholders (e.g., to secure a "license to operate," to obtain expedited licensing procedures, to secure better relations with local communities to avoid disruptions; to improve staff pride and morale to enhance recruitment and retain of superior staff).

6) To enable strong "green" branding by the company (for marketing to consumers, investors or others committed to "green" products or companies).

Barriers and Gaps to Establishing and Scaling Up PES in Developing Countries

There are a number of important gaps and barriers to establishing PES at the national and sub-national levels. This section draws on the background analyses prepared by the project during the PDF, Katoomba Group workshops in Thailand, Uganda and Germany, and meetings in China, Brazil, and India. This describes gaps and barriers related to information, technical knowledge and skills, policies and regulations, and institutional arrangements for key stakeholders, and provides examples from specific countries. Country-level inventories were undertaken in Kenya, South Africa, and Uganda to determine the status of PES and these building blocks in a series of countries; results are summarized in **Annex 14**. Abbreviated national reviews were also done in Brazil and China, and key informants were interviewed in another 10 countries. A regional workshop held with five countries in Africa identified country and national barriers (Inbar, et al. 2005). A more detailed barrier analysis for specific stakeholders and types of markets for biodiversity conservation may be found in **Annex 2**.

1. Informational Gaps and Barriers

Markets thrive on information. Because PES are developing in a very ad hoc and decentralized way, there are major barriers for exchange of information that is critical for market transactions. At their last meeting, the Katoomba Group identified market information as one of the two principal barriers to development of effective PES. Present information sources and services are too global and so too generic, not regionalised or sufficiently country focussed, too site-specific for relevance elsewhere, or too disperse and difficult to access. analyses found the following principal gaps for key stakeholders.

a) Buyers. Potential buyers of ecosystem services (consumers, businesses, utilities, government agencies at all levels, and even conservation NGOs) are most often unaware of their dependence on ecosystem services (or vulnerability to their decline or disruption). Even when they are aware, they have not usually calculated the financial value to them of these services and therefore the marginal price they should be willing to pay for them. Once establishing a need to secure ecosystem management services, they typically have few connections with potential sellers and no guidance on establishing contracts or arrangements with them. Potential financial investors have difficulty learning about market prices, trends, or factors influencing these. Buyers widely noted the need for government to set up a clearly designated institution they can approach to get information on regulations, national biodiversity priorities, etc.

b) Sellers. Most sellers are not aware about general opportunities for PES, or for the ecosystem services they are managing, and do not know how to find potential buyers. Even where opportunities present themselves, they do not know how to value their stewardship services, nor are they aware of lessons learned from experiences in other countries or even within their own country, and cannot calculate the likely benefits to be gained, thus making them hesitant to participate in the market. Typical information asymmetries between buyers and sellers significantly disadvantage sellers from rural communities and small businesses.

c) Policymakers and Regulators. Policymakers and regulators find it very difficult to obtain information about alternative types of PES and their policy requirements and implications. They often “reinvent the wheel” (including mistakes) because they are unaware of experience elsewhere with legislation or regulations, or in the case of public payments or cap-and-trade systems, to alternative design options.

d) Service Providers and Project Developers. Both sellers and buyers depend upon technical and business advice for analysis of the feasibility of PES, for design and operations. However, most private businesses, NGOs and public agencies currently or potentially involved in PES find it very difficult to access to the sort of detailed, practical information required to advise them. Rules in the carbon market are hard to understand or to keep straight, as is the evolving national legislative and regulatory frameworks. Evidence of technical performance of ecosystem management options are not usually made available in forms that can be adapted to local conditions.

2. Technical Gaps and Barriers in Knowledge and Skills

Because PES are a recent innovation, few individuals and organisations have the requisite knowledge to organize and implement PES effectively. There also remain major gaps in understanding of how ecosystems can best be managed to achieve key services, how best to design PES, and how to value ecosystem services in the marketplace. There is currently no credibility for carbon and biodiversity offsets and PES performance in many sites.

a) Buyers. Most potential buyers do not know how to estimate biodiversity values, how to manage risks, or how and from whom to most strategically obtain benefits. Most businesses have insufficient internal

capacity to evaluate, plan or implement PES, which is not their core business. “Best practices” have not been established, thus increasing risks of low returns on investment and reputation risks.

b) Sellers. Land and resource owners and stewards require specialized skills and knowledge to assess the market potential of their resources and resource management options for PES. They particularly need knowledge of profitable and sustainable PES business models relevant to their type of enterprises. Models relevant for low-income communities are few and often unproven. Robust and proven models for biodiversity payments are especially weak.

c) Policymakers and Regulators. Ecosystem service markets and payment schemes are appropriate mechanisms only where basic relationships between ecosystem management and delivery of services are clear, observable and reliable. Policymakers and regulators themselves have inadequate understanding of PES to determine where, when and in what forms they are appropriate (in relation to national or sub-national strategic priorities for conservation and development), to establish appropriate legislative and regulatory frameworks or to operate and monitor performance.

d) Service Providers and Project Developers. A widespread barrier to PES is weak technical and business skills and knowledge specific to PES among existing institutions. Skills of PES market analysis, enterprise analysis, contract provisions, design and operation are typically learned on the job, through trial and error. Service providers are untrained in methodologies for measuring and monitoring biodiversity conservation for PES..

3. Policy and Regulatory Gaps and Barriers

All markets are facilitated and shaped by policy and regulatory arrangements. In the case of private deals, the role of government may be limited to the establishment of basic rights for trading ecosystem stewardship services, and contract enforcement, although tax benefits have also been an important incentive for PES in developed countries. Public payments and cap-and-trade systems are established through legislation and the rules through regulations. Unsupportive policy frameworks was identified by The Katoomba Group in 2003 as one of the two principal barriers to expansion of effective PES globally. Carbon offset trading in regulatory markets (Clean Development Mechanism particularly) is still highly restrictive on land use projects. The project by project approach of the CDM limits the potential of moving carbon offsets to scale. There is poor coordination between international environmental and other agreements (UNFCCC, CBD, CCD, Ramsar, Millennium Development Goals, and use of PES. Again each of the stakeholder groups has specific sets of issues.

a) Buyers. Buyers are constrained from offering payments for ecosystem services by uncertain of legal standing for purchases of ecosystem services, and thus enforceability of contracts. Unclear or weak resource tenure rights constrain development of coastal and marine PES. Company buyers are concerned about the political and public acceptability of their role in PES.

b) Sellers. Insecurity about underlying tenure rights for land and resources is a major constraint for many communities to engage in PES, particularly long-term contracts. Policies establishing rights to buy and sell ecosystem stewardship services have not been essential for pilot activity in PES, but will limit the scale of expansion, and reduce the prices buyers are willing to pay. Regulations restricting forest and resource management on private lands commonly inhibit use of PES. Low-income communities have poor knowledge of and participation in policy development.

c) Policymakers and Regulators. The development of policies and regulations for PES is inhibited by the narrow sectoral scope of platforms for policy dialogue and development. Mechanisms are not in place or pursued to enable the participation of communities in policy forums and processes. Policies tend to be

developed in response to a particular opportunity, without reference to a broader framework for considering options, issues and potential threats. Policymakers cannot rely on policy analysts and experience policy advisors knowledgable about issues of PES. In many cases, there is confusion about appropriate government roles in the development and operation of specific types of PES. In some cases, problems have arisen from an insistence by government officials that flows of funds should go through particular agencies or individuals in ways that create opportunities for corruption.

More fundamentally, there are important philosophical, strategic and political issues raised by PES that present major challenges for policymakers. Examples include: potential conflicts between delivery of ecosystem services as "private goods" versus "public goods," the role of the government in implementing or regulating PES, conflicts over existing rights to ecosystem services and to the flow of benefits from their sale; and equity issues for low-income buyers or sellers of ecosystem services. There are also complicated issues about whether ecosystem service payments should be 'bundled' so as to ensure that the full set of ecosystem objectives are met, or whether payment or market systems should focus on particular ecosystem services valued by interested buyers.

d) Service Providers and Project Developers. Policies and regulations may be needed for the establishment, or certification of service providers for PES.

4. Institutional Gaps and Barriers

One of the indicators of a mature market is the presence of differentiated institutions across the value chain from seller to buyer that minimize transaction costs. PES markets and payment systems are not necessarily more complicated than other markets. But because they are new, many necessary institutions are not in place (e.g., certification bodies and procedures; financial intermediaries) and some are entirely new (e.g., national registries for ecosystem services). While it can be expected that institutions will arise to fill in gaps as the magnitude of PES increases, some will require pro-active development due to market failures, or for involving low-income communities that cannot finance them on their own.

There is a lack of cross-sectoral institutions that can coordinate landscape-scale design and management of agri-environmental and coastal PES for real biodiversity benefits. Design and management of PES contracts in highly dynamic working landscapes is a challenge for sustainability of benefits. Most PES support in developing countries is currently being provided by international public sector or by conservation NGOs still in the early stage of the learning curve, rather than by business leaders or seasons leaders in PES development.

Overall, there is an ongoing proliferation of PES projects being implemented now without a coherent strategy for institutional/policy framework, or links to priority ecosystem services, or without adequate attention to potential risks involved.

a) Buyers. If there are multiple beneficiaries of ecosystem protection, there is often no way an individual private buyer can exclude competitors from sharing in the benefits. In other cases, to actually achieve ecosystem service benefits will require effort over a larger area than a single company can afford to finance; unless multiple companies get involved, the marginal investment by the first company will have little payoff. In all these cases, some mechanism is needed to aggregate efforts from a number of buyers. This has typically been done by government entities, who charge a "user's fee" from the companies and transfer the funds to the landowners. This solution is not always appreciated by companies, because they lose control over quality assurance, because voluntary initiatives are transformed into mandatory ones, or because certain types of potential benefits (e.g. to reputation or morale) are lost in multi-actor solutions.

b) Sellers. Institutional factors are significant barriers for participation of sellers, especially those who manage smaller areas of land or resources, both in terms of feasibility of action and because of very high transaction costs. Institutional mechanisms are essential to provide economies of scale and scope in finding and negotiating with buyers, bundling multiple ecosystem services for different markets, achieving efficiencies in management, monitoring and certification. Sellers also face a market failure in lack of institutional mechanisms for financing costs of project planning and establishment of PES projects, including access to reliable advisory services.

c) Policymakers and Regulators. The greatest underlying institutional barriers for policymakers and regulators are those limiting cross-sectoral planning, analysis and implementation. Establishing the framework for PES requires coordination between environmental, finance, and production sectors. Buyers and sellers often come from different jurisdictions, and to achieve landscape-scale ecosystem impacts requires cross-jurisdiction coordination. Institutional mechanisms for such planning are not often in place, adding another layer to the set-up costs for new PES. Where public payments are the PES approach being used, there can be considerable conflict in determining which jurisdictions should be responsible for paying. There are broader questions as well about the role of governments in private PES deals and in aggregating private buyers. And there is a need to re-consider which stakeholder groups should be participating in policy formulation and how to engage them in policy dialogues.

d) Service Providers and Project Developers. There is little institutional support for individual consultants and business or non-profit organizations providing technical or business services to PES projects, or project developers. Professional associations have not yet developed. In the case of low-income communities, there is a need for establishment of PES enterprise support centers for long-term provision of necessary advisory and capacity-building services.

Root Causes of Barriers to Development of PES

The root causes of these barriers to PES development can be traced to a number of factors:

1) These payments systems and markets are relatively new, so that many actors do not know about or do not understand them; there are few institutions or policies developed to serve them; and information about them is limited.

2) PES are still controversial in many places, because they involve fundamental shifts in paradigms about conservation and markets, and they often represent a shift in fundamental rights to ecosystem services.

Because their scale is still limited, there is weak financial motivation for monitoring and evaluating market information.

3) The business case for PES is not well-established, partly because financial information is often proprietary, but also because there are often unclear links between ecosystem management and the flow of services delivered.

4) PES must be tailored to the local ecological, economic, social and political situation, and thus requires considerable analytical skill to devise and adapt.

5) There is frequently a disconnect between the scale at which resources must be managed to deliver ecosystem services, and the scale at which beneficiaries wish to use them.

Long Term Vision for the Future Development of PES

The long term vision of the project is that within the next 25 years, payments and markets for ecosystem services will become a major source of financing for ecosystem stewardship and biodiversity conservation. Institutions will be developed that will enable the direct beneficiaries of ecosystem services to finance their protection in efficient ways that minimize transaction costs and provide meaningful incentives to resource stewards and investors in stewardship. These will work in complementary way with policy frameworks that reduce subsidies and incentives for ecosystem degradation, and mobilize public investments in strategic conservation actions, especially for types of ecosystems and ecosystem services for which private consumer or business buyers are not available or appropriate. The project will have made significant progress towards a truly "green economy" where the costs and benefits of ecosystem conservation are embedded into everyday financial transactions of consumers, producers, intermediaries and financial institutions. PES will be a key element in strategies for mainstreaming conservation, particularly outside of Protected Areas (EM 2005). Carbon offset trading could become a major source of finance for biodiversity conservation and land rehabilitation.

Developments for PES in the next decade will be crucial for the establishment of basic policy framework and institutional arrangements, for ensuring that these new markets and payment systems develop in ways that achieve public goods as well as private benefits, and for devising innovative and low-transaction-cost models for PES. While one can anticipate that much financing for good stewardship will be in the form of public payments and private voluntary arrangements, the expansion of markets under a regulatory caps and ceilings become important for high-value ecosystems under development pressure from diverse actors. Most of the total value of PES will continue to be in the most developed countries, but large increases in middle-income developing countries, and much greater use in low-income countries are possible. Expert consultations suggest that in developing countries as a group, conservation banking, biodiversity offsets and direct payments for biodiversity could increase to several billion dollars (more than matching current conservation finance from public, ODA and philanthropic sources). With supportive offset trading rules and voluntary market standards, international carbon trading could provide financing for biodiversity stewardship on an unprecedented scale (MA 2005).

Baseline

Even without this project, it is anticipated that there will be growth in the number of PES projects in developing countries, as there are many in the pipeline and much interest. The "Matrix" analysis suggests the scale of ongoing work globally and in developing countries (**Annex 1**). A review of multilateral projects at the World Bank, UNEP, UNDP and GEF found many projects in the planning or early development stages (**Annex 12b**).

There are several payment schemes which serve as global models. In Costa Rica, the public watershed payment program has provided significant incentive to local landholders to maintain forest cover. Landholders in critical watershed areas are paid between US$30-US$50 per hectare per year. Many countries are currently looking to copy the Costa Rica experience, though this may not be a suitable model in other places that are not middle-income, are without strong environmental values, do not have a well-functioning government or seek to achieve goals other than just slowing deforestation. In Colombia, voluntary payments are made by Irrigator Associations and government agencies to private upstream landowners to improve base flow and reduce sedimentation in the Cauca River. Total investment in this scheme was over $1.5 billion USD from 1995-2000. Conservation and wetland mitigation banking in the United States has provided a significant base of methodological experience for developing payments for biodiversity, as have public payments to private landowners for species protection. There has also been

growing experience with carbon payments for biodiversity conservation, including that of Scolel Te in Mexico and the San Nicolas forest in Columbia. The large Chinese programs have demonstrated diverse institutional approaches, but still struggle with difficulties to mobilize private sector buyers and with project designs that are seriously inequitable. There are very few cap-and-trade type schemes in the developing world, although much interest in models such as wetlands mitigation banking.

The first generation of PES projects have shown some clear lessons. Governments play a critical role in PES development, as the principal buyers of many ecosystem services and catalysts for many private sector direct payment schemes. However, few countries have adequate policy frameworks to support the latter system, and find it challenging to design targeted public payment systems. Property rights and national legal frameworks are necessary for ecosystem markets to develop. PES are not likely to contribute substantially to poverty alleviation unless proactive efforts are made to recognize rights and shape markets to provide equal access to low-income producers of ecosystem services. Indeed PES generally cover only a modest—but potentially catalytic—share of the costs of good land management, and thus need to be combined with complementary strategies. In addition, new market institutions are needed to reduce transaction costs and financial risks. Far more technical and financial assistance services are needed to support PES development, and opportunities for innovators to learn from one another (Scherr, White and Khare 2004).

Much of the work needed to establish successful PES will have to be done at national level, and is specific to the type of ecosystem service, the type of site and the type of market instrument. A large volume of work is currently being done by a number of actors to plan and organize new payment systems, and implement new pilot projects. The country inventories in Africa, and the interviews in Brazil, China and Latin America illustrate the ongoing activity to establish information services, develop policy and regulatory frameworks, develop and disseminate new technical knowledge, and create or adapt institutions for PES.

However, cross-cutting global and regional level mechanisms and activities will play a vital role in removing barriers and filling gaps at the national level. Key areas where regional and global activities can have important economics of scale and scope include:

- Access to global market information and trends;
- Synthesis of lessons learned from specific types of PES being implemented in a small number of sites in different countries and regions;
- Facilitating information-sharing among PES innovators;
- Resource-pooling to undertake activities that will benefit diverse stakeholders in diverse types of PES across countries (e.g., mobilizing international buyers).

The baseline for this project is existing global and regional actions to support PES. This includes the disparate efforts made by UN agencies, international research organizations, and international NGOs, as well as the international work undertaken over the past six years by The Katoomba Group and Forest Trends.

a) Current Global and Regional Initiatives. Global and regional initiatives to build institutional capacity for PES are emerging, but in a fragmented and ad hoc way. These include:

1. Training

- Training activities on the Clean Development Mechanism and LULUCF have been organized under the UNFCCC and as part of an FAO/UNEP/ICRAF collaborative project;

- The World Bank has a implemented a number of formal training courses on PES, especially for watersheds, with greatest activity to date in Latin America, and in its new PES projects in Africa is considering provision of short-term technical assistance;

2. Lessons Learned, Resource Materials and Guidelines

- Ford Foundation-sponsored dialogues and research on relevance and impacts of PES on poverty, in Indonesia, eastern and southern Africa and Central America;
- The Environmental Economics Network for Africa has worked on conservation finance in general, and is interested in PES;
- IUCN, IIED and others have collected and synthesized lessons learned about LULUCF carbon emission offset projects and watershed payments;
- IUCN, UNDP, UNEP, FAO and others have developed basic handbooks on developing some types of PES projects;
- Winrock International has organized a network of researchers on PES in Asia.

3. Policy and Planning Support Networks

- Project of FAO, Netherlands in Latin America that includes some strategic planning and capacity-building;
- The RUPES project ("Rewarding Upland Poor for Ecosystem Services"), led by ICRAF and supported by IFAD, is working in several Asian countries on community-based PES.

4. Market Information

- The World Bank, IIED (through FLOWS and a new service being developed for community watershed services), WWF (just recently), Nature's Services (for U.S.), CINCS (for carbon projects), Nature Valuation (Dutch on financing ecosystem services) and some implementing agencies have numerous websites documenting PES initiatives and lessons learned, but most are providing library-type services targeting a narrow range of markets and do not support financial, business or investment needs, nor do they track market activity;
- Several information services, including Earth Assets Group, Ecosystem Services Project and Ecosystemvaluation.org, do provide more market support services;
- A number of companies and organizations offer PES-related information and news, such as environmental commodity brokerages (Chicago Climate Exchange, Cantor-Fitzegerald, NatSource Inc., CO2e.com and Point Carbon) and environmental service providers (such as ERT EcoLands Program and Environmental Banc and Exchange).

5. Projected Global and Regional Initiatives

- The World Bank will be providing some training activities in PES as part of projects now in the pipeline in Eastern and Western Africa, and for supporting initial project establishment activities under the BioCarbon Fund;
- Partnership project of IIED, WWF and CARE on watershed payments, focused on pilots;
- A project under development of CATIE, Hohenheim University and CIFOR to develop toolkits for PES in Argentina, Mexico and Costa Rica)
- RUPES is in the process of considering what activities it will seek to undertake in a second phase, including expansion of support in Asia, and sharing of lessons learned with Africa;
- The University of Peace in Costa Rica is exploring with a number of Latin American researchers and implementation agencies interest in a Latin American PES network;

- RECOFTC, based in Bangkok, has begun the planning phase for a project to provide technical assistance in forest PES in south and southeast Asia;
- UNEP recently convened a workshop to discuss integration of PES into the program of work of the Multilateral Environmental Conventions, and has decided to move forward in this area.

a) Current Katoomba Group and Forest Trends Initiatives. The Katoomba Group—a unique international network of more than 200 innovators in PES—was created by Forest Trends six years ago to explore and build on innovations in ecosystem service markets. The Katoomba Group also drew on the knowledge and experience of its network of diverse members, to convene major public meetings to raise awareness of PES in the business, finance, landowner, conservation, policy and media communities in Sydney (Australia), Vancouver (Canada), Rio de Janeiro (Brazil), London (UK), Tokyo (Japan), Zurich (Swizterland), Bangkok (Thailand) and Kampala (Uganda).

b) The Katoomba Group Model for Supporting PES Development. The unique Katoomba Group model was designed explicitly to support innovators in ecosystem service markets. Workshops held near the venues for the public meetings above enabled members to share market information and intelligence, to access diverse types of expertise required for market design and operation, to learn about new models and tools for PES, and to jointly tackle key conceptual and operational challenges of setting up PES. Katoomba Group meetings focused mainly on PES for biodiversity conservation, carbon sequestration, watershed services and landscape beauty, and included all types of PES. The first years of the Katoomba Group focused more on PES in developed countries and in Latin America (which led in innovation), with a small number of Asian participants. African and Chinese participation began at the Bangkok meeting, with strong African participation in Kampala.

The meetings have provided a forum for cross-sectoral information exchange, strategic problem-solving and the creation of innovative partnerships. They have explicitly included all of the key actors who are required for successful development of ecosystem service markets: buyers, sellers, intermediaries, investors, insurers, ecologists, community leaders, certifying and regulatory agencies and others. Outside these workshops, the Katoomba Group has provided advisory input to projects undertaken by KG members, policy input to national governments, The Katoomba Group has played a central catalytic role in the development of PES ideas, projects and policies around the world.

c) Support for PES Projects. The Katoomba Group's international networking activities have had a highly catalytic impact on development of PES, although of course other actors were responsible for implementation. Concrete examples of PES developed with Katoomba Group input include:

- Development of the World Bank's BioCarbon Fund;
- Design of voluntary biodiversity payments in Australia,
- Design of the ProAmbiente program payments to small farmers in the Brazilian Amazon,
- Design of the public Mexican watershed payment scheme and many others.

The Katoomba Group has a history of engaging with private buyers and helping to promote private PES deals. The Group has also influenced potential buyers and investors through the public conferences, which have been co-sponsored with influential private corporations, insurance and investment firms, such as Swiss-Re, Citigroup, Mitsubishi, Zurich Financial Services, and Tokyo Electric Power Company.

d) Input to PES Policy. Forest Trends and The Katoomba Group has been invited, on an ad hoc basis, to provide input to high-level national policy processes and dialogues related to PES, including:

- Mexico – FT worked with CONAFOR to help design the new national forest PES system focused on watersheds.
- Colombia – FT advised the Columbian government to revise their forest law to include incentives for PES.

- China - FT held workshops with the State Forest Administration to design PES schemes including setting up their own carbon office. FT was a formal advisor to the Chinese process of reviewing their Forests and Grasslands policy.
- India - FT helped organize policy workshops with the local nations forest commission to advise on reforms for community-based forest management. As part of these policy workshops, Forest Trends met with the Presidents office to advise on market for ecosystem services.
- Honduras – FT organized a national workshop with policy makers and civil society on sharing international experience and lessons in forest policy reform including opportunities for ecosystem service payment schemes.
- Brazil – FT advised the governor of Amazonas Eduardo Braga and Secretary of Environment of the State of Amazonas Virgilio Vianna on the creation of financial instruments for conservation.
- ITTO - FT is conducting a series of global assessments of the status and potential of community enterprises engaged in markets for ecosystem services. Forest Trends also recently completed a report to inform the ITTO on Opportunities for ESP in Tropical developing countries. FT and The Katoomba Group advised the International Tropical Timber Association in its consideration of including PES in the new ITTO Treaty.

In the process of these activities, FT and the KG have developed an extensive body of practical knowledge about how to develop PES. This has also led to production of a number of synthesis reports and published books.

e) Provision of Market Information Services. The Ecosystem Marketplace was originally conceived during a meeting of the Katoomba Group in Locarno, Switzerland. The group concluded that in order to address some of the key barriers that hinder ecosystem service markets from developing to significant scale, there must be a timely and in-depth information source. The group was inspired by the Bloomberg.Com website whose mission is to "change the way the world looks at financial news and information, by providing a combination of data, analytics, electronic trading and straight-through processing tools on a single platform". First launched in October 2004, the Ecosystem Marketplace Bulletin and website have already become the premier source of timely information on ecosystem payment schemes and markets around the world (*www.ecosystemmarketplace.com*). The Marketplace seeks to be a conduit of information (clearinghouse) for the national and international trade in ecosystem services, complemented by a set of interactive support tools for the ecosystem services produced by forests, watersheds, coastal, and marine resources. The Ecosystem Marketplace harvests the knowledge and ingenuity of Katoomba Group members worldwide, and as of September 2005 had 18,000 monthly visitors.

f) Projected Katoomba Group and Forest Trends Initiatives. Without this GEF/UNDP project, the Katoomba Group will continue to function as an international networking group, holding annual meetings and occasional expert panels in individual countries. It will not have the capacity to mobilize strategic input at project or national levels. The Katoomba Group's Ecosystem Marketplace will continue to function in providing basic market information, but will not be able to expand the markets covered, provide significant original research, to develop as a platform for information relevance for communities involved in PES, or to reach non-English-speaking audiences.

Forest Trends and Katoomba Group members began in 2004 to explore the development of projects that would provide targeted technical and market analysis and support for pilot projects of innovative new types of biodiversity payment schemes, in particular biodiversity offsets, forest PES enterprises, and agri-environmental payments to reduce deforestation in the agricultural frontier. Forest Trends had also begun to analyze lessons learned about pro-poor, pro-biodiversity carbon forestry offset projects, and to evaluate

the desirability of expanding work on coastal marine ecosystems. Without this GEF project, development of only a small number of pilot projects will be supported in these areas, but resources will not be available to draw and compare lessons learned across sites, or to communicate results to a broader policy, business and community audiences.

g) Concerns about the Baseline. Under these broad policy and institutional conditions, it is not clear that the growing pipeline of PES projects will have the anticipated impact on ecosystem or biodiversity conservation. Without more strategic thinking about when, where and how PES can contribute effectively to poverty alleviation and community participation, developments are likely to be limited and inadequate. Weak design and implementation, or the threat of new types of corruption, may reduce enthusiasm for these instruments, and negative community impacts may generate resistance to PES. Without proactive efforts, policy and regulatory frameworks will likely develop slowly, or in perverse directions, resulting in PES developments inconsistent with national biodiversity conservation and development priorities. Already, voices are being raised that question the equity and conservation benefits of PES, or the specific forms that it is taking. Without more targeted and business-savvy initiatives to engage private buyers and investors in the design and policy for PES, it is unlikely that anything close to the potential private and corporate financial flow for ecosystem service payments will materialize.

Specific promising types of payment for biodiversity conservation will evolve slowly. For example, without concerted action:

- Agro-ecological payments will bypass the poor and fail to achieve biodiversity goals at habitat/landscape scale (Rhodes and Scherr 2005);
- Voluntary biodiversity offset initiatives will grow very slowly, in few sectors (ten Kate and Inbar 2005);
- Forest enterprises will move very slowly to integrate PES into their portfolios (Tepper and Halvesen 2005);
- Payments for coastal ecosystem services will grow very slowly, missing a great opportunity (Agardy 2005);
- Carbon offset investments will bypass the poor and contribute little to--possibly harming--biodiversity (Scherr and Inbar 2005; Jansen-Smith 2005).

While much international attention has focused on the level of individual payment schemes, PES continue to be constrained from expanding regionally and globally because of significant informational, technical, regulatory and institutional barriers. There is thus an urgent need for institutional mechanisms to be put place that can significantly reduce transaction costs, enhance the quality of project and policy design, and build critical institutions in the “value chain” for PES. There is also a need to create forums that support a thoughtful and reflective process of PES innovation that incorporate lessons learned from experience around the world.

PART II. PROJECT STRATEGY

Project Rationale and Policy Conformity

1. Project Rationale

This project seeks to promote the conservation of biodiversity worldwide by accelerating the growth, improving the quality and establishing the enabling policy and institutional frameworks of new financial mechanisms that reward conservation behavior. This will be achieved by increasing the scale, scope and quality of Payments for Ecosystem Services (PES), in particular their application for biodiversity conservation. The project will seek to support a change in mindset, among all stakeholders, to consider and develop biodiversity and ecosystem services as financially valuable assets, and conservation activities on behalf of beneficiaries of these services as meriting financial reward in an evolving "green economy." PES will be integrated into broader strategies of conservation and rural development.

Based on analysis of the principal barriers identified for scaling up of high-quality PES, the project partners will focus on five:

1) Market actors cannot obtain systematic information about PES markets and best practices to reduce risk and uncertainty of PES investment and market activity;

2) Institutions are weak or not in place to mobilize and enable potential private sector buyers of ecosystem services;

3) Policy frameworks for PES do not effectively support conservation and rural development goals or national conditions and opportunities;

4) Rural communities are weakly engaged in policy and enterprise development for PES and equity concerns for low-income stewards and beneficiaries are not being addressed; and

5) Models for biodiversity payments at enterprise and landscape scales are not developed and evaluated for financial viability and ecological impact.

Without proactive efforts, the baseline situation will continue, with ad hoc PES project development without adequate attention to the policy and institutional context, continued serious information and transaction costs, and "reinventing the wheel" on project design for biodiversity.

The focus of the project will build the institutional foundations for PES development by providing global and region mechanisms to support national innovators through information sharing, capacity building and training, and policy change. The project will focus on activities that support a large number of PES projects on the ground: building a sustainable institution for providing ecosystem market information to diverse stakeholders, including low-income rural communities; building sustainable regional learning and exchange networks of PES project, policy and corporate innovators in tropical America and eastern and southern Africa,; and contributing to design, implementation, and dissemination of lessons learned of a large number of projects piloting new models for biodiversity payments.

The focus of the market information activities will be on clients from diverse sector around the globe. The capacity-building work will be regional (in Eastern and Southern Africa and Tropical America), with lessons learned for policy makers, buyers and project developers shared globally. The enterprise and landscape models work will have global relevance and impact, but concentrate on supporting and learning

from a network of businesses and projects principally in ES Africa and Tropical America. Activities to support rural communities' engagement in PES will be integrated explicitly into all components of the program, at global, regional and project/business scales.

The partners in the project have a comparative advantage, relative to other institutions, to manage this project and engage local partners for work in these areas. Its origin and relationship with the Katoomba Group provides it with unusual access to market information around the globe. Its network of private sector partners and collaborators around the world provides credibility and entrée to work with them in developing institutional models to mobilize and aggregate buyers. The project team and consultants have unusual backgrounds integrating conservation, business and social organization expertise—as well as extensive expert networks—that enable them to tackle the challenges of designing new types of biodiversity payment systems. The partners have a longstanding program, expertise, and active networks with forest and agricultural communities to support their engagement in product and ecosystem service markets, and successful experience with the ITTO, UNFF and UNFCCC in supporting community participation in international policy dialogues.

2. Policy Conformity

This project is centred on the Biodiversity focal area. The GEF is currently supporting many diverse projects on PES, and other international programs as well as business- and community-led initiatives. This project is justified by GEF's second Biodiversity strategic priority--'mainstreaming biodiversity into production landscapes'. PES supports mainstreaming by integrating conservation investments into mainstream economic activity. The kinds of production landscapes to be targeted by this project include rural landscapes with commercial and subsistence crops, pastoralism, community forestry, coastal fisheries, and tourism.. Activities also contribute to GEF's fourth strategic biodiversity priority—Dissemination of Best Practices and Lessons Learned.

The project will contribute to all five GEF Biodiversity Operational Programs (arid, wetlands, forests and mountain ecosystems and agro biodiversity, coastal). The project will encompass specific markets, enterprises and landscapes in all of these types of ecosystems, and in production landscapes involving agriculture, forestry, tourism, infrastructure development, oil and gas and mining. This project is consistent with operational guidelines proposed by STAP for Mainstreaming Biodiversity, particularly its focus on policy frameworks, dialogue, emphasis on biodiversity within production landscapes and economic sectors, establishment of coherent incentives for conservation for sustained and measurable behavioural outcomes and biodiversity impacts. The project will also contribute significantly to Climate Change and Land Degradation, and—through the work on coastal ecosystem protection, potentially also contribute to International Waters.

a) The GEF Business Plan (FY04-FY06). The GEF Business Plan provides a strong justification for this project, by encouraging the development of markets for ecosystem services. It is in line with BD-2, Mainstreaming Biodiversity into Production Landscapes. The project will address multiple Operational Programs: 2- Freshwater, Coastal, and Marine Ecosystems, 3-Forest Ecosystems and 4-Mountain Ecosystems. While focusing on production landscapes, the project will also support BD-1, to enhance their financial sustainability of Protected Areas., through development of PES.

b) CBD Conference of the Parties. CBD COP decisions have strongly supported the need to develop payments for biodiversity conservation services. This project supports Article 21 of the Convention on Biological Diversity (CBD), which calls for new financial mechanisms to help support developing countries achieve the 2010 goals. It is also clearly supported by Decision VI/15 on incentive measures and Decision VII/18 on promoting incentive measures. This project will support the biodiversity information system of the Clearinghouse Mechanism of the CBD.

Project Goal, Objectives, Strategy, Outcomes and Outputs

1. Goal

The overall project Goal is: To increase the financial incentives for conservation of ecosystems and biodiversity.

2. Project Objective

Project Objective is: To establish institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services.

The project anticipates that this objective will be reflected by achieving targets to:

- At least 8 new and 8 established PES projects incorporating improved designs in Eastern and Southern Africa and Tropical America
- At least 15 projects with new biodiversity PES models
- At least 2 projects with buyers mobilized through new mechanisms developed with the project
- A 100% increase in area of land under effective biodiversity conservation in at least 10 collaborating PES projects
- New and/or improved organizational and policy framework for at least one PES in at least 8 countries across the world,
- At least 8 countries with leadership from stakeholder groups with capacity for strategic analysis, planning and implementation
- A 5-fold increase in the number of users of market information services of the Ecosystem Marketplace.

The project will focus geographically on countries eligible for GEF funding, including:

- Africa: (Kenya, Madagascar, Malawi, South Africa, Tanzania, Uganda),
- Latin America (Bolivia, Brazil, Colombia, Costa Rica, El Salvador, Mexico).

The project will focus on ecosystems rich in biodiversity, or where ecosystem protection or restoration is a high priority for biodiversity conservation. Project activities will include a major focus on PES that directly benefit the poor.

3. Overall Strategy

While most PES development globally will continue to be at the country level, the project strategy is to provide global and regional support mechanisms that will in turn support national development, initially in the GEF-eligible countries listed above. The project Objective will be achieved by removing those barriers and filling those gaps that can be addressed at global and regional levels. Under this project, activities will contribute to directly removing one or more of the barriers discussed earlier. **Table 4**, below, describes the specific barriers being removed by each project outcome.

The model of change underlying the project strategy is that scaling up and institutionalizing PES will be achieved most effectively (and cost-effectively) by empowering and enabling the innovators who will be responsible for policy and institutional development. The experience of Forest Trends and The Katoomba

Group and others in this field over the past six years of work with PES market innovators has shown that the elements of such support are:

1) Accurate and timely market intelligence;
2) State-of-the-art understanding of PES policy, institution and project design;
3) Ongoing access to expert and peer experience and advice during the process of PES design and implementation, and
4) Platforms for cross-sectoral dialogue and institution building.

Through this project, support will be provided at three scales: global, region/national and local/landscape.

a) Global. The project will strengthen the Ecosystem Marketplace as a service that will make market intelligence, tools and resource materials, identification of sources of expertise and policy dialogues globally available at a very low cost. The further development of this service is an extremely cost-effective way of supporting PES innovators and market participants all around the world. The Katoomba Group network provides expertise and contacts for timely market information from all around the globe, and efforts will focus on biodiversity.

A Community Advisory Group will help to develop a special portal and information services for low-income communities engaged in PES, that will include diverse media. Specialized market information services will be developed that can raise revenue for the site, to strengthen its financial sustainability. Diverse methods will be used to raise awareness and utilization of the Marketplace and ensure continuous feedback from users. The Marketplace website will provide a real-time platform for discussion, knowledge exchange and business transactions.

b) Regional/national. The international Katoomba Group has served as a highly effective networking and support service for its members—a forum for reviewing PES concepts and designs, accessing specialized advisory services, staying abreast of state-of the-art market development, forging relationships that lead to cross-sectoral and cross-country partnership between buyers and sellers and between policymakers and practitioners.

The project proposes to use the Katoomba Group model to develop regional networks in Eastern and Southern Africa and in tropical America, supporting PES development in 5 to 6 countries in each. These regional Katoomba Group networks will strategically engage individuals from different sectors who are playing a catalytic role in the formation of new PES institutions, policies and programs. The Group members themselves will determine the priorities of discussions and capacity-building.

These individuals are associated with businesses, landowner organizations, public agencies, NGOs, etc. actively involved in PES development, but such individuals often move over time among different institutions. Hence the focus of the networks is not on strengthening specific institutions within collaborating countries, but rather on strengthening a cadre of influential individuals from all key sectors who can collaborate effectively in the long-term development of the diverse institutions and policies that will be required to establish and grow payment and market systems.

“Learning by doing”—and critically assessing progress along the way—has been found to be the most effective way to develop new models and approaches to PES. Thus, this project will utilize a “learning network” approach among on-the-ground projects or policy initiatives or institutional developments such as mechanisms for aggregating ES buyers. There will be a particular focus on policy frameworks and mobilization of private sector buyers for PES, which were identified by The Katoomba Group as critical areas for the scaling up of PES. Experienced members of the International Katoomba Group will be engaged to provide targeted advisory services to a number of projects and policy initiatives in the network countries, through site visits, teleconference and e-mail.

c) Local/landscape. The project also proposes to use the "learning network" approach to develop promising types of models for biodiversity PES. These will draw together experts and practitioners from different sectors and parts of the world to share knowledge and methodologies, and lessons from field implementation.

Two of these models—for biodiversity offsets and forest enterprise PES--develop strategies for engaging in PES from the perspective of individual businesses seeking to benefit from them. The other two—agri-environmental and coastal protection payments—develop strategies for mobilizing finance from diverse ES beneficiaries to achieve ecosystem stewardship in particular landscapes of high biodiversity value. International technical advisory groups will provide state-of-the-art input to the pilot projects, and methods and lessons learned will be shared.

Most of the biodiversity payment projects in the networks will be located in tropical America and eastern and southern Africa, to enhance synergies with the regional networks. Lessons learned from those pilots will be disseminated regionally through the networks, and globally through the Ecosystem Marketplace. All of the biodiversity model networks will also seek to raise awareness and engage key policy and business actors to adopt new and improved models.

Table 4. Barriers to Be Addressed by Project Outcomes Root Causes

	Barriers	Responses: Project Outcomes	Information Response	Technical Response	Policy Response	Institutional Response
Many markets only recently developed and changing rapidly Weak financial motivation for monitoring market information due to economies of scale Proprietary financial info not shared	Market actors cannot obtain timely and relevant market information to take decisions	1. Timely information accessible to key market actors to engage in PES, through Ecosystem Marketplace	Information on market rules, transactions & trends, esp. for biodiversity PES PES market information services for community market actors		Platform for engaging diverse stakeholders in policy dialogue	Platform for linking buyers and sellers of ecosystem services Platforms for policy dialogue on PES
Fundamental philosophical and strategic debates over use of PES PES create and modify resource rights, motivating political conflict Business case for PES not well-established PES design & implementation requires cross-sectoral input and	PES pose complex policy and design challenges Institutions across the value chain of PES not in place, leading to high transaction costs ES buyers not identified or mobilized Rural communities are weakly engaged in policy and enterprise	2. Networks to support national capacity for PES policy and project innovation in E. & S. Africa and Tropical America	Awareness-raising of ES buyers	Synthesis of lessons learned; "learning-by-doing", network support for stakeholders, communities, training materials	Support for policy planning and formulation	Support to develop institutions to reduce transaction costs; forum and tools for cross-sectoral policy & planning Support to develop institutions that aggregate ES buyers

cooperation PES design requires local adaptation and innovation New markets require new rules and policy frameworks and new skills	development for PES Few potential market actors have experience in PES					
Limited experience with biodiversity payments Financial info from existing projects is not shared Achievement of ecological objectives uncertain, hard to measure or of secondary importance Incongruence between farm or site focus of PES and landscape objectives	Financially and ecologically viable business models for private buyers and sellers not available Financially and ecologically viable models for organizing PES to deliver landscape biodiversity outcomes not available	3. Operational models and capacity developed for new PES for biodiversity conservation		Models, capacity, invest. pipelines, policy support Pilot projects, lessons disseminated & adopted		

d) Coordination of Components. The Outcomes will combine to deliver the Project Objective, leading to (i) capacity in many regions/countries to develop policy frameworks and to set-up and run PES; (ii) new PES with improved designs up and running; and (iii) improved existing PES in terms of conservation impact and effectiveness and livelihood impacts. The Ecosystem Marketplace will facilitate exchange, synthesis and dissemination of critical market information to diverse actors. Capacity-building through the regional Katoomba Group networks will enable them to use this information effectively in developing new PES and improving existing PES, and developing a strategic policy and institutional framework for PES that supports development and conservation goals. New methods and best practices developed for biodiversity PES will be disseminated through the Marketplace and the networks, and by increasing awareness of buyers. Buyers will be mobilized and enabled to act together to provide new financing through PES in the target countries. The three components of the project will be closely linked as shown in **Table 7**. Opportunities for collaboration and complementarity will be identified and agreed on in semi-annual project planning meetings.

Table 5. Links Among Project Components

To: Input From:	Ecosystem Marketplace	Katoomba Group Regional Networks	Biodiversity PES Models
Ecosystem Marketplace		The EM will provide network members with tools and resource materials, timely market and policy info, search capacity, link buyers and sellers, track development of markets in the region	The EM will make available biodiversity measures, tools and links to experts, will disseminate models developed by the project, and raise awareness among businesses and policymakers of innovative biodiversity PES opportunities
Katoomba Group Regional Networks	The networks will provide to the EM: regional cases of PES projects and policies, resource materials, contacts for the experts database, tracking of regional markets		The networks will help Model teams identify interested businesses and potential offset sites, mechanisms for disseminating models and tools, and recruit new participants into the Learning Networks
Biodiversity PES Models	The Model teams will produce for the EM: cases of PES, best practice guidelines, investor contacts	The Model teams will produce resource materials for network training, a pipeline of investable projects, and mapping of project opportunities	The teams will share lessons learned regarding biodiversity measurement methods and business methods

4. Outcomes

This project will produce three major Outcomes. The attached Logframe (**Table 6** in part II) provides full details of outcomes, outputs, baseline situation, targets and monitoring mechanisms. In this section, we briefly introduce each Outcome, its targets, key outputs, key partners and how sustainability of each will be assured. A background strategy paper has been prepared for each Outcome and Sub-Outcome; these are summarized in Annexes to this Document.

a) Outcome 1: Timely, relevant, PES market information services for PES available to all stakeholders globally, through the Ecosystem Marketplace.

Project resources will be devoted to building up the Ecosystem Marketplace as the world's premier global market information and service for ecosystem service payments and markets. The service will catalyze market development by dramatically reducing transaction, search and learning costs for all key actor groups. GEF resources will be utilized for expanding coverage of biodiversity markets, especially in developing countries; developing new types of PES market information services deemed most critical by prospective users; enabling active community participation in PES markets; outreach and marketing to diverse market actors to catalyze their participation in PES; and development of a financially sustainable business with a high proportion of revenues earned from Marketplace services. A Business Plan is being developed for the Marketplace.

(1.1) Biodiversity market information services. Market coverage will focus on the high-priority markets identified through the matrix (**Annex 1**), including for agri-environmental payments, wetland and conservation banking, voluntary biodiversity offsets and conservation payments, land trusts and conservation easements, and coastal marine ecosystems. Additional less intensive coverage will be provided for other markets. The Ecosystem Marketplace will develop new types of PES market information services, targeted for particular markets and particular market actors within those. The MarketWatch service that tracks the development and financial performance of selected markets and payment systems around the world will be expanded, particularly for biodiversity PES. The new biodiversity information services of the Marketplace will help to catalyze expansion and improvement of PES by: connecting islands of 'best practice' around the world, making market news accessible to mainstream markets, facilitating interdisciplinary dialogue, matching buyers and sellers of ES of spatially explicitly scales, accelerating innovation flow between developed and developing countered, and reducing transaction costs and barriers to market access through tools. The strategy for developing the Biodiversity market services is summarized in **Annex 3A**.

(1.2) Market Information Services for Communities. The Ecosystem Marketplace will expand market content and services for community-based land and resource owners and managers, and to support their active participation in PES policy dialogue and enterprise activity. Forest area owned or administered by communities has doubled the last 15 years to at least 25% of all developing country forests or almost 400 million hectares and continues to grow, with the likelihood of doubling again by 2020. In addition, overlays of indigenous peoples, priority biodiversity, threats, and community-managed agroforestry and forest systems indicate that there are at least 500 million hectares of forests, sacred groves and cultural sites, and agroforestry and secondary vegetation managed for long-term goals by communities and low-income producers which conserve important biodiversity values. PES that have pro-poor and biodiversity co-benefits have a higher rate of replicability and sustainability on community-owned land. Income from PES, while modest, has proven to be highly catalytic in the transition to improved forest/land management practices. Therefore, by focusing on community-based PES, the Ecosystem Marketplace can play an instrumental role linking biodiversity and community values, and encouraging equitable PES systems and outcomes..

A Community Editor will be hired to coordinate this work, who will also work closely with community groups in the two regional networks discussed below. Topics will serve the interest of communities, and library content will expand and focus on materials in suitable communication forms and language. Services will be developed to support community-based organizations learn about and become engaged in PES policy processes. The Ecosystem Marketplace will collaborate with other major initiatives to serve community-based producers, including the IIED/WWF/CARE collaborative project, RUPES and others. More detail is provided in **Annex 4**.

(1.3) Awareness, Utilizaton and Access. The Ecosystem Marketplace will implement awareness-raising activities, including Katoomba Dialogues, and marketing activities aimed to attract users including all key groups of market actors (Brown, et al 2005). Design improvements will facilitate use of the marketplace, and systems will be put in place for continuous user feedback. This will involve a careful analysis of audiences, analysis of traffic on the website, organizing media outreach, and engaging in and co-organizing key events. Details may be found in **Annex 3b**.

(1.4) Financial Sustainability. The Marketplace will pursue new business opportunities consistent with its mission to support global scaling up of ecosystem service markets that are ecologically effective and contribute to sustainable development. It will aim to achieve at least 50% self-financing by 2010 through diverse mechanisms. Among the options to be evaluated from market and financial perspectives include: webinars, live and e-conferences, specialized fee-based market analyses and reports, ratings and indexes, a directory of service providers, advertising, on-demand publishing, and premium content subscription services,. etc. (See the Business Plan.)

b) Outcome 2: National champions and stakeholders of PES in at least 8 countries in E. and S. Africa and Tropical America have improved capacity and access to resources and support for institutional and policy development for PES

Over the past six years the Katoomba Group, an international networking group of 200-plus PES innovators from diverse sectors, has had a major impact on the development of PES around the world. The project proposes to draw on the lessons learned from that powerful model to organize regional Katoomba Group-type networks. The objective of these networks is to build the capacity of individuals and institutions in two major regions so that they can lead in the development of effective policy frameworks, locally-suitable PES mechanisms, and profitable PES enterprises. The focus will be on hands-on, action learning. Priorities for regional action were derived from an in-depth needs assessment conducted during the planning period (Waage, et al. 2005, Kaimowitz 2005, Borges 2005, ten Kate 2005, Romero 2005), summarized in **Annex 5**, which includes prospective network members.

The project has chosen these regions because they are areas of:

- High conservation value (14 conservation hotspots are found in these regions);
- A high degree of interest and growth in PES;
- A highly active leadership from Katoomba Group members; and
- Strong local partnerships and networking.

Staff and project leaders of relevant GEF, UNDP, UNEP, World Bank, IFAD and other UN agency PES initiatives will be invited to participate in the regional networks. Many of these organizations already have a strong representation in the international Katoomba Group. By 2010, UNDP and GEF will have strengthened internal capacity to identify opportunities for PES financing for conservation and integrate this into strategies, project design, and policy support activities. The Groups will share linkages and services with UNDP's regional knowledge networks.

The project will focus on particular criteria for what constitutes an "improved project" or "improved policy," including:

- Reduced transaction costs
- More effective and cost-effective conservation of biodiversity consistent with local and national biodiversity priorities
- Enhanced participation of and benefits to low-income communities in PES
- Increased mobilization of financing from private sector buyers and investors
- More effective role of governments in mediating tradeoffs and encouraging complementarities between public and private benefits of PES.

The emphasis of the regional Katoomba Group networks is to create an enabling environment for direct technical support for the development of PES schemes on the ground. These regional networks will provide the following services:

- Semi-annual meetings to bring market actors together (buyers, sellers, intermediaries) and to exchange market information, learn about diverse PES policy and project models from one another's experiences, and make deals. These meetings would be directed by regional partner needs.
- Regional web-enabled information exchange. This service would be designed and directed by regional partners to facilitate the exchange of learnings within the region and transfer of knowledge.
- Technical rapid response service. It would help local partners identify global and regional experts within the international Katoomba Group network to respond to specific project needs. Examples of this type of rapid response include in Mexico, Forest Trends brought experts with over 30 years of experience in conservation banking in the United States to help partners in the Sierra Gorda Biosphere Reserve think strategically about planning for a biodiversity offset project. In Uganda, Forest Trends helped identify individuals with expertise in writing carbon contracts to help local partners there.
- Policy rapid response service. Much in the same light as the technical response service, the project will help identify individuals with experience writing the rules for PES in regulatory and legislative frameworks to work with policymakers in identified regions.
- Tools for project and policy development. Based on an iterative process of understanding the needs of policymakers and project implementers in these networks, the regional Katoomba networks will design and develop tools for project and policy development.

The regional Katoomba networks will involve buyers, sellers, intermediaries, project implementers, and finance institutions—all the agents of change required to catalyze and create new ecosystem service markets. By connecting with buyers and sellers, informing policy developments, and delivering technical experience to implementers, these regional networks will be the most cost-effective mechanism to respond to the explosion of PES activity at the local level, linking the learning from other projects regions to concrete action on the ground.

(2.1) Eastern and Southern Africa Katoomba Group. The project will support a fully functioning and sustainable Eastern and Southern African Katoomba Group network providing information, analytical

tools and technical support to key stakeholders, including community organizations (described in more detail in **Annex 6** and in Waage, et al. 2005). Core partners for the regional network for Eastern and Southern Africa have already developed priorities and recommended key actions for regional collaboration. Networking will be facilitated by a user-friendly internet-based communications system, supplemented by an annual meetings focused on specific themes for capacity-building, and support for sub-groups interested in particular topics. One important sub-group will be community-based producers, to provide targeted support for their PES initiatives. Country inventories of institutional capacity for PES, already completed for Kenya, Uganda and South Africa, will be implemented for other participating countries (Madagascar, Malawi and Tanzania), to identify areas for focused work. An International Network Coordinator based with Forest Trends will provide technical support for the network, including internet-support communications tools.

Technical assistance will concentrate on "learning by doing" for organizational design and policy framework, and project design to improve or scale up existing PES, or establish new PES in 5 countries. Key technical themes for capacity-building (drawn from the needs assessment) will include:

- Identification of promising opportunities and conditions for different types of PES (including mapping tools, ecosystem service valuation)
- Design and implementation of policy and institutional frameworks (e.g. designation of rights to buy and sell ecosystem stewardship services, design of registries to track services),
- Pro-poor planning and design of projects and policies,
- Mobilization and aggregation of private sector and other buyers,
- Valuation and pricing of goods,
- Design features to achieve biodiversity impacts at landscape scale, and
- Other topics to be identified with network members.

International Katoomba Group members will be mobilized to assist regional working groups on project currently being developed, with technical and policy "rapid response" teams providing support through telecommunications and field visits. The project will help local partners map out capacity building needs (i.e. how to draft a carbon contract, how to measure biodiversity services, how to write policy guidelines for PES) and will identify and bring individuals from the Katoomba Group with the needed expertise on site to work with local partners. This kind of service is of particular value to local organizations. About 12 projects and policy initiatives will receive this more intensive support. These will be selected by the network on the basis of their potential to contribute important lessons learned or institutional capacity benefits. Collaborating organizations will provide significant co-financing to these activities.

Major policy challenges for high-biodiversity-impact, low-transaction cost, and pro-poor PES will be evaluated and incorporated into policy principles and design. The background report on Capacity-Building (Waage, et al 2005) found that capacity-building materials are available or under development particularly on aspects of project development (watershed projects from IIED, carbon projects from BioCarbon Fund, biodiversity projects from TNC, etc). These will be reviewed, compiled and shared with the network members. New resource materials will be drawn from all elements of this Project (Marketplace, Katoomba Group work on policies and institutions and buyer mobilization, and the biodiversity models.) The national partners in the networks will be actively involved in identifying priority capacity-building activities, contributing materials and information, and organizing workshops and meetings. Web-based networking tools will be developed to enable network members to share information and communicate more effectively (see Waage 2005; Bracer et al. 2005).

The network will aim to eventually involve 15-20 individuals from each country, invited in their personal capacity as PES leaders, experts or innovators. The country members will be explicitly and strategically drawn from diverse sectors, including: conservation organizations, government ministries, community-based organizations, private companies, financial institutions, research institutes or universities,

politicians, and development or consumer NGOs. New members will be brought in during the course of the project, as strategic opportunities or needs arise for national PES development. The aim will be to build in these cross-sectoral linkages from the beginning that are essential to developing the necessary hybrid institutions and relationships required for effective PES.

A major regional meeting will be held during each year of the project, rotating between countries and hosted by KG members' organizations in that country. The meetings will include these E&S African review sessions for specific projects and initiatives, capacity-building around at least one major theme, networking and PES site visits.

(2.2) Tropical America Katoomba Group. The project will also support a fully functioning Tropical American Katoomba Group network providing information, analytical tools and technical support to key stakeholders, including community organizations, as described in 2.1. A larger number of countries and institutions may be involved, and much interaction will done electronically and by organizing side events or special sessions at PES-related meetings organized by collaborating initiatives and networks (e.g., Netherlands/GTZ/FAO financial mechanisms network, CATIE project,).. This reflects the greater level of ongoing PES activity in Latin America. The network will be run in Spanish, with a closely-linked sub-group in Brazil working in Portuguese.

(2.3) Improving PES Policy, Planning and Institutions. While resource materials and capacity-building for PES projects is gradually becoming available, there is little guidance for national strategic planning. There is little development of planning tools like mapping ecosystem services to meet PES needs, guidelines on the role of governments in different types of PES, use of the national PES inventory tool, or designing institutional mechanisms like ES registries. There are few forums for policymakers engaged in PES program and policy development to exchange views and experience with their peers from other countries and regions. This project will create and support opportunities for exchange on the 'hard' policy issues, including how to address equity issues for different groups of beneficiaries and resource stewards, and how to ensure that PES Promote not just the provisions of one or two ecosystem services, but finance the sustainable management of ecosystems. The project supported network coordinator will work with collaborators in the regions, the International Katoomba Group, Forest Trends project leaders and the Ecosystem Marketplace staff to synthesize Best Practice Guidelines and to develop new Models and Tools for PES Policy, Planning and Institutions. These will be developed, evaluated and used by the regional Katoomba Group networks and disseminated globally through the Ecosystem Marketplace.

The project will aim to produce and disseminate 4 best practice tools/guidelines and 6 sets of resource materials on key policy and planning themes. The project will also result in a critical mass of policy and planning leaders in at least 10 countries with the capacity for strategic analysis, planning and implementation of PES policies and systems.

(2.4) Mobilizing Private Sector Buyers. This component of the project will directly address the challenges of mobilizing buyer awareness and interest in PES and finding solutions to the challenges of aggregation (Mulder, et al. 2005; Roberts, et al. 2005, summarized in **Annex 7**). The project will identify and analyze diverse existing mechanisms being used to aggregate private buyers of ecosystem services, and draw and disseminate lessons learned. It will sponsor, with diverse business organizations, Private Sector Dialogues on PES to mobilize private buyers of biodiversity conservation services in two selected sub-regions or landscapes in Eastern and Southern Africa and/or Tropical America. These may include, for example, food industries importing commodities from the Amazon Basin or offshore oil and gas firms operating near coastal marine resources.

The work will developed distinct approaches with companies and groups that are already participating as buyers of ES, those who are motivated but face institutional constraints to engage in PES and those who

are beneficiaries of ES but are not yet motivated – by financial or other factors – to become buyers. Strategies to mobilize buyers will address these specific barriers, and involve detailed financial analyses of benefits and costs to private actors, awareness-raising, development of new institutional mechanism to aggregate or intermediate among buyers and sellers, and risk assessments.

The project will produce at least three best practice guidelines on buyer mobilization. It will also seek to mobilize at least 10 new private buyers in PES projects through project activities. At least two buyer aggregation strategies will be piloted with collaborators. At least 5 private sector industries or associations will promote or endorse PES.

c) Outcome 3: Operational models and capacity to effectively design, establish and implement new PES and improve existing PES for biodiversity conservation

The review of Ecosystem Service Markets (**Annex 1**; Ecosystem Marketplace 2005) found diverse payment and market schemes to pay for biodiversity stewardship services. However, in general, these are much less developed than payment schemes for carbon offset, watershed protection or landscape beauty. This project will develop new or improved models for biodiversity conservation payments that have great potential for scaling up in different sectors. Agri-environmental payments are especially important for slowing or reverse biodiversity loss in agricultural landscapes due to natural land conversion or agriculture-related degradation. Biodiversity offsets have particular promise as a way of limiting biodiversity damage from various types of development and infrastructure investments. Incorporating financial incentives for ecosystem conservation into forest enterprises is one of the most promising opportunities to achieve sustainable forest management. There are largely untapped opportunities to develop PES for coastal ecosystem conservation, especially for fishery and flood protection.

For all these models to be adopted and adapted on a larger scale, potential buyers, sellers and investors need to have compelling evidence and business examples of profitable, sustainable enterprises, to understand the risks and opportunities, and to have cost-effective design principles that demonstrably achieve biodiversity benefits at landscape scale. To generate such information, and develop pipelines of investable PES, the project will mobilize and support pilot biodiversity PES, mainly in Eastern and Southern Africa and Tropical America. Learning networks will be developed that link innovators, evaluate and compare outcomes and then disseminates main findings and models globally. Related UNDP projects will be included in these learning networks. Project teams, associated businesses and agencies in the pilot projects, and learning network members will develop practical capacities to design and manage these new models.

(3.1) Payments for Biodiversity Conservation in Agricultural Landscapes. The Millennium Ecosystem Assessment confirmed that agricultural expansion and intensification are the main drivers of biodiversity loss and habitat change globally. One response is “ecoagriculture”—a landscape management framework that explicitly conserves biodiversity and ecosystem services while also sustainably producing crops, livestock, fish and forests, and enhancing rural livelihoods. Ecoagriculture approaches involve both ecologically-compatible management of agricultural fields, pastures and production forests, and the management of natural areas/ecological networks and wild species within and around agricultural landscapes. Payments for ecosystem services offer an important potential mechanism to finance the transition and maintenance of ecoagriculture systems, and are widely used, particularly in North America and Europe. Agribusiness and the food industry have significant untapped potential to become buyers of conservation services.

However, there are significant barriers for develop of PES in agricultural landscapes, such that even in developed countries they often do not achieve targeted conservation benefits at the landscape scale. There is insufficient knowledge and documentation on managing agricultural landscapes to effectively delivery

and verify ecosystemand biodiversity outcomes; financing models are unsustainable; the scale and scope of current payment models is limited; there is weak institutional support for the multi-stakeholder collaboration essential to landscape-scale management; agri-environmental payments for productive and natural areas are plot-focused.

The project and regional network partners will work to develop replicable models and tools to implement landscape-scale approaches to agri-environmental payments (summarized in **Annex 7**). The team will work closely with other UNDP and GEF projects involved in mainstreaming biodiversity in agricultural landscapes. The project will produce three Outputs: a Learning Network, support for design improvements for PES in two landscapes; and dissemination of lessons learned to policy groups.

Through an international Learning Network on PES in Ecoagriculture Landscapes, Landscapes where agri-environmental payments are being used to achieve landscape-scale biodiversity conservation targets will be identified. PES planning and implementation processes and tools in use will be evaluated, and promising ones will be shared with local partners in selected landscapes in the regional networks. The project will support multi-stakeholder planning groups in at least two major agricultural landscapes in regional network countries (E. and S. Africa and tropical America) to develop or improve PES systems to achieve landscape targets. This work will begin by evaluating or undertaking landscape-scale mapping to identify the overlays between important agriculture and biodiversity protection areas in Tropical America and Eastern and Southern Africa.

d) Output 1: International Learning Network on PES in Ecoagriculture Landscapes developed and supporting innovators. The International Learning Network will consolidate and mobilize international expertise on developing landscape-scale agri-environmental payment schemes, to support innovators working to strengthen or develop new PES initiatives within agricultural landscapes. In particular, the network will provide focused support to innovators within tropical American and eastern / south Africa, enabling them to benefit from experience and lessons learnt from ongoing activities worldwide.

Process. The network will draw upon the diverse capacity and outreach of existing partners, currently operating internationally and regionally. The review will consolidate information resources, training materials, case studies, 'best practice guidelines' and lessons learned. Materials will document experience from landscape-specific ecoagriculture management strategies within dynamic environmental, socio-political contexts; multi-stakeholder collaboration processes to undertake participatory landscape-scale analysis, management and outcome assessment; public and private financing opportunities to support landscape-scale action within diverse agricultural production systems.

Processes will be designed to strengthen knowledge exchange between existing agri-environment PES projects, including public programmes within OECD countries, Australian and N. America, as well as initiatives supported by GEF, World Bank, UNDP, UNEP, international and national NGOs and the food industry. The Learning Networks will invite the participation of UNDP GEF biodiversity projects in Central and Eastern Europe that are dealing with agri-environmental payments. Along with numerous other initiatives in Europe (such as SENSOR), these are actively involved in promoting innovations to enhance biodiversity benefits and can share lessons learned with developing country network members. The program will work with FAO on evaluating when and how PES can offer an appropriate incentive mechanism within diverse agro-ecosystem and socio-economic contexts. Mechanisms will include knowledge-exchange workshops (many during KG meetings), cross-site visits, video-taping group experiences and the translation of useful information into local languages.

e) Output 2: Improved ecoagriculture payment schemes designed and piloted in two landscapes in Eastern Africa and tropical America. Pilot sites will be located in areas of high biodiversity value and high agricultural pressure, selected on the basis of strong ecoagriculture foundations already in place –

management approaches, stakeholder collaboration, well established regional networks / active EP and Katoomba Group partners, coupled with expressed demand from local stakeholders to trial or strengthen ecoagriculture payment schemes. One landscape will focus on a public payment scheme; the other, a private one.

Process. Focussed support will be provided to PES innovators within two specific agricultural landscapes. Landscape-scale activities will be founded upon on-going activities of local stakeholders (community-based organizations, NGOs, private sector, researchers, local policy makers etc). The project and the International Learning Network members (Outcome 1) will offer support by making available additional (international) expertise, strengthening capacity and catalysing inter-institutional learning, cross-site fertilisation and coordination. The project will work with (or convene) a multi-stakeholder landscape-level working group to conduct an initial landscape-scale assessment of ecosystem service assets, flows, barriers, goals, outcome measures and sustainable financing options. Each landscape working group will take a leadership role in documenting processes employed, challenges and opportunities experienced to be disseminated through the Learning network.

f) Output 3: New approaches to ecoagriculture payments informing decision-making among national policy, farmer and/or industry groups. To scale up impacts beyond the landscapes and learning networks, the program will raise awareness about new agri-environmental models among potential market participants and policy advocates.

Process. The program will analyse strategic opportunities for scaling-up new approaches; identify actors that need to be engaged to enable scale-up; plan and implement a communication strategy to enhance awareness and engagement of these key actors. Communication materials highlighting implications and recommendations will be specifically tailored to meet distinct information needs of different target audiences. Policy dialogues will be convened with potential buyers and sellers of ecosystem services, including the food industry and the farming community etc. Policy recommendations and briefing notes will be disseminated internationally, through key policy fora, i.e CBD, FAO, MDG review processes etc, regionally within East/ South African and tropical America, and nationally within pilot site countries.

(3.2) Business and Biodiversity Offset Models. The project and its partners in the Business and Biodiversity Offsets Project (BBOP) will support a portfolio of biodiversity offset pilot projects around the world, draw lessons from their experience to develop guidelines and toolkits, and then build policy support for expansion of biodiversity offsets. This is a new tool for mobilizing large-scale new finance for conservation. (A summary is provided in **Annex 8**; the full report in ten Kate and Inbar 2005.)

Many infrastructure projects have a significant, adverse, direct impact on biodiversity and livelihoods by converting habitat and polluting soil, water and air. These projects often attract people to the area for jobs, trade, and local amenities. Such indirect impacts on biodiversity can be much greater than the company's direct footprint. Environmental impact assessments and corporate environmental management systems rarely focus on threats to biodiversity, but tend to seek engineering solutions to reduce impact and emissions. Companies may partly rehabilitate only the project site, leaving the surrounding area that the project has affected degraded. The restored site often has little conservation or biodiversity value.

The poor environmental, socio-economic and health legacies of such sites have damaged biodiversity and local communities' lives. They have also created liabilities for and harmed the reputation of companies, often for decades after an operation ends. Some companies are now aware that biodiversity offsets could decrease broader threats to biodiversity for costs similar to rehabilitating sites. Offsets can both rehabilitate sites and provide significant and enduring conservation results at the landscape sale. Offsets can also address local communities' biodiversity-related livelihood priorities, thus tackling a common cause of local biodiversity loss and also securing the social license to operate that companies prize.

However, a recent survey of companies, governments and conservation groups pointed to key barriers which have prevented biodiversity offsets from expanding on a globally significant scale. Stakeholders are not engaged in dialogue together and do not even have a shared vocabulary. Businesses and potential conservation paratners lack practical experience. There are no agreed guidelines and methodologies, and thus offsets pose unacceptable risks.

Biodiversity offsets have the potential to achieve significantly more, better and more cost-effective conservation outcomes than currently result from infrastructure projects which convert habitat. Biodiversity offsets can become a standard tool for businesses in a broad range of economic sectors to lower risk and manage projects. Offsets can help companies that impact biodiversity to secure legal concessions and the social license to operate and to manage their costs and liabilities. The immediate impact of the BBOP is to ensure that major infrastructure projects in six different high-biodiversity areas cause no loss of biodiversity. Accomplishing this will require addressing threats to biodiversity at offset sites, to ensure the offsets succeed. The project will magnify the impacts beyond the specific conservation outcomes at pilot sites by developing and disseminating best practices and guidance, and by stimulating systemic change as private and public developers recognize and use biodiversity offsets as a regular business practice.

g) Output 1: Create a portfolio of successful biodiversity offset pilot projects. Industry needs to see how biodiversity offsets will work in different circumstances to learn how different sectors, impacts, scales, regions and policy environments affect their success. Hence, Forest Trends will establish at least six offset pilot projects to demonstrate how firms can ensure that government-approved infrastructure projects cause no net loss of biodiversity. Each pilot partnership will include at least the private or public-sector developer, government agencies (national and/or local,) and one or more domestic NGO, including those that work with communities. The pilot activities will involve and benefit local communities, local NGOs and universities. An Advisory Committee of international experts will support the pilot partnerships. This committee will help design each pilot offset, ensure a consistent approach for pilots, and periodically gather all pilot partners to share experiences and lessons.

Process. Each infrastructure project in this program will impact an area of high biodiversity value. The activities of each biodiversity offset will be in areas with biodiversity value at least as high as where the impacts will occur. The partners for each pilot will first quantify the impact on biodiversity of the proposed infrastructure and analyze the threats to the biodiversity in the offset region. This analysis will be part of the baseline and trends assessments needed to ensure “no net loss” of biodiversity. Together, the partners will identify options for biodiversity offset conservation activities for each pilot, weighing their potential to contribute to national conservation priorities and to meet local communities’ needs. The partners and stakeholders will select the location, nature and scale of the offset. Either the developer, a government agency, NGO, or a firm under contract to the developer could actually implement the activities, collaborating with stakeholders. The current pilot portfolio includes a $3B oil and gas platform in the Middle East with Shell, an open pit gold mine in Eastern Ghana with Newmont Mining, the construction of an ecotourism lodge in the Mabira forest, Uganda with Africa Awakenings, and the construction of 56.3 km powerline with the Federal Electricity Commission in Mexico.

h) Output 2: Develop, test and disseminate best practices and guidance for designing and implementing biodiversity offsets. BBOP aims to develop guidance on implementing biodiversity offsets and make it widely available to industry, policy makers, development agencies, academics, and others. The BBOP will provide the methodology through a Toolkit. Companies embarking on biodiversity offsets have also asked for a multi-stakeholder partnership of experts to help design and implement biodiversity offsets to provide scientific credibility, practicality, and political support for the approach. The BBOP has established an Expert Advisory Committee and a Learning Network to meet this need.

Process. The BBOP has assembled an Expert Advisory Committee, consisting of experts from companies in different sectors, and from government departments, taxonomic, conservation, research and academic organizations world-wide. These experts are from disciplines that underpin biodiversity offsets, including: conservation methodologies and metrics; bioregional and landscape scale planning; systematics and biodiversity measurement and monitoring; risk, project and biodiversity management in business; and environmental economics. Many have already helped design and implement biodiversity offsets and associated public policy. This group will provide technical support to the pilots and build their capacity in biodiversity offsets; contribute to the Toolkit; and participate in training events. They will participate in work with national and intergovernmental policy-makers on biodiversity offsets. The project is also establishing a Learning Network to enroll a broad network of companies, industry associations and government representatives in learning about and promoting biodiversity offsets. Learning Network members are from organizations outside the pilot project partnerships and the Advisory Committee. Members will receive regular updates from the BBOP and have access to an interactive website. The Learning Network members and BBOP partners will regularly discuss scientific, technical and policy questions through the listserv and interactive website.

i) Output 3: The project aims to scale-up program impacts well beyond the proposed pilot sites. For this to happen, companies and governments need to change policies and practices. Companies must commit to conduct biodiversity offsets at sites where they have a significant impact on biodiversity. Governments must use existing policies or introduce new ones to require or encourage developers to offset their impacts on biodiversity. The BBOP will catalyze these systemic changes by working with companies and industry associations and with policy makers in national government and international policy fora.

Process: BBOP partners (including investors, banks, and NGOs that interact with companies) will work with individual companies, industry associations and professional groups to persuade them to adopt biodiversity offsets as a routine part of business. This will involve presenting the business case for biodiversity offsets and BBOP's experience and results. The project will also promote biodiversity offsets with key policy-makers, both in the countries and regions of the pilot projects and with inter-governmental bodies. BBOP will seek to build consensus on the use of biodiversity offsets based on sound science. The program aims to influence the conservation community, companies and policy-makers to mainstream biodiversity offsets routinely into the planning of major development projects. It also aims to guide the development of policy on biodiversity offsets in a direction that will meet the needs of business and the conservation community. By project end, at least 20 companies and/or institutions will have endorsed biodiversity offsets.

(3.3) Forest Biodiversity Enterprise Models. The Business Development Facility (BDF) is developing and evaluating business models evaluated for private and community forest enterprises to engage in ecosystem service markets and payment schemes. These are new business approaches that have promise to enhance the financial attractiveness of forest conservation and sustainable management. The full plan (Salvesen and Tepper 2005) is summarized in **Annex 9**.

Forest conversion to other land use options is still rife in most developing countries. In addition, the forestry sector in most of these countries is still largely characterized by unsustainable forest operators who have not yet received certification. The WWF/World Bank target of 200 million hectares under independent certification by 2005 is far behind. The markets for ecosystem services have been immature in most developing countries, and hence there has been no perceived value of these products and services. To date, forest operators have focused on their core business of harvesting and selling timber with no/limited view of the commercial and environmental value of their land assets and trees, other than timber, and the impact of their business on biodiversity. The value to local communities and local markets

has also often been undervalued and overlooked. Hence, cut timber has historically been seen as the only real value of forest assets, and still is in most of these markets.

The demand for alternative land use and the liquidation value of forests is high, creating strong economic incentive for conversion. Financial markets reward short-term over long-term returns which puts additional pressure on the returns required from forestry which is resulting in unsustainable harvesting practices, or land conversion to other land use methods (e.g. soya bean farming in Brazil). Certification has provided a significant additional cost to most forest operators as it requires fundamental changes in harvesting techniques and equipment, volume and species selection (for natural forest operations), conservation areas, forest management plans (planning, systems, and inventory databases), in addition to the actual cost of certification and validation. The approval processes can also be complex and conflicting in a number of countries. This has resulted in a number of operators struggling to make adequate returns, in particular in countries with a high risk-free rate of return, and hence shying away from certification.

In response, the Business Development Facility (BDF) will work to enhance the value of forests by assisting forest operators develop and commercialize ecosystem products and services. The goal of the BDF is to demonstrate that ecosystem services can enhance the financial returns for a forest operator, as well as provide a range of other benefits such as: biodiversity preservation, benefits for and improved relations with local community and other stakeholders, land appreciation, asset protection, risk reduction and positive public relations. This approach assists forest operators' move from a 'single-asset approach' where cut timber is seen as the only real value of forests, to a 'multiple-asset approach' that diversifies revenues streams by capitalizing on ecosystem services and products that generate higher real returns on the forest asset. The multiple asset approach assists in making forestry land use more profitable to compete with alternative land use such as agriculture (e.g. soya bean farming in Brazil), grazing, etc. to prevent conversion of land use. This approach also assists in setting and promoting new standards for sustainable forest management and in attracting capital from more long-term sustainable investors into forestry in developing and emerging economies.

The objective of the BDF is to develop a portfolio of forest-based ecosystem services and businesses with forest operators to demonstrate the business case that sustainable forestry, with multiple revenue streams from ecosystem services in addition to timber, can generate higher returns and increase long-term land value while preserving bio-diversity.

The BDF currently has two pilot projects in South Africa and the Brazilian Amazon. The GEF project will focus on developing the portfolio of PES mechanisms and projects. BDF staff provide day-to-day, on the ground assistance to the forest enterprise. Most importantly, the BDF provides the dedicated management of the project that is required, to keep the project on schedule, and to keep the staff motivated. The BDF also play a crucial role in identifying market opportunities, and negotiating commercial contacts between commercial partners and the forest operator. The BDF arranges for feasibility studies that engage local and international specialists to conduct technical and market assessments.

The BDF works with the forest operator to measure the financial contribution that ecosystem services will make to their bottom line. Current methods of valuation do not acknowledge and assess the contribution of alternative land uses. It is essential that the industry is able to compute this value and communicate it to their stakeholders including their board of directors. The BDF staff is characterized by their business and client management experience. The ability to negotiate the important aspects of the new business model and secure support from the board of directors is key to the success of the project, and the overall impact of the BDF initiative. Throughout the period with the pilot BDF staff working on the ground with the forest operations to equip the employees with the tools they will need to permanently integrate the ecosystem services into their long range business model.

The BDF also works to develop new distribution channels and stimulate new market demand for PES by working with users, potential buyers and regulators.

j) Output 1: New PES in forest enterprises designed and implemented with project support. BDF will build a portfolio of forestry companies and assist them to successfully diversify into ecosystem services businesses. The GEF project will assist in supporting the efforts of building a portfolio of prototypes. The focus will be on Africa with potential upcoming projects in southern and central African countries (Mozambique, Congo Brazzaville, South Africa) as well as continuing work in the Amazon basin. The success of prototype projects will be assessed and reported by analysing the contribution that ecosystem services has on revenue, profit, profit margin and return on assets on these businesses (this is also a new way of assessing and presenting the financial results of forestry companies). Increased access to capital and any improvements in community relations will also be monitored and documented.

Sharing the successes of the BDF portfolio is one of the cornerstones of the facility's business model. Cultivating a wide audience will be necessary for significant change. Through the dissemination of lessons learned and value created, the BDF plans to target the following influential groups, including the investment community, forest industry, NGOs and communities.

k) Output 2: Cases documented, and lessons synthesized and disseminated with a toolkit on how to set up PES in forest enterprises. The project will work with the BDF to develop a network of advisors that will help analyze and evaluate investment criteria and obstacles for tropical and emerging markets. It will assemble and synthesize lessons learned from the active projects. The success and failures of the forest investments and funds and the challenges of developing ecosystem services will be reviewed so that these finding can be made available to the forestry and sustainable development community.

The success and failures of the asset diversification undertakings will be reviewed and analyzed so that these findings can be made available to the forestry, finance, and sustainable development community. Lessons learned will be gleaned through in depth analysis and review with all of the project participants including the forest operators, the commercial partners, the community stakeholders and the project and BDF representatives. In addition to individual project findings, common themes that emerge among the various project will also be explored and shared. Issues, processes, outcomes and overall contributions to environmental and economic sustainability will be covered. In addition to profit margins, and return on assets and investments, access to capital will be monitored as well as public image, and relations with stakeholders including community groups and shareholders and the board of directors.

l) Output 3: Pipeline developed for investment in PES in forest enterprise. The project and the Business Development Facility will identify and develop a project pipeline to expand its portfolio of ecosystem services projects with the GEF grant. The focus will be on building the pipeline in Africa first, and then the Amazon basin. The BDF will work in collaboration with various institutions, including the Smartwood Network, the Bio-Carbon Fund, and the network of the Tropical Forest Trust, and Katoomba. Pilot participants will be selected based on their replicability, scalability, and demonstration of new business models in critical forest areas. The BDF will focus on the following revenue diversification opportunities: revenue generation from credit programs including watershed enhancement, carbon and methane avoidance, and conservation; revenue from sustainable recreation activities including eco-tourism credits. The project and the BDF aims to create opportunities that are regionally and operationally appropriate.

m) Local, Regional and Global Impacts. In addition to increasing profitability through diversifying into ecosystem services - watershed restoration, carbon emission reductions (with biodiversity benefits), and biodiversity offsets - these services produce local, regional and global benefits environmental benefits. The approach also stipulates sustainable land use and certification, hence it is assisting in increasing the

number of forest operators who operate sustainably and pursue certification. The additional revenue and profit contribution from ecosystem services assist, in part, in paying for the cost of being certified.

The fundamental benefits of the project on biodiversity and conservation are to reduce pressure on forests, increase the value of standing forests, promote sustainable forestry and certification, and enhance ecosystem services. Economic benefits include new models for forestry companies on how to manage their business, economic growth and employment, new business opportunities, new investments in asset development, and innovative funding mechanisms. Social benefits of this approach includes educating the forestry community about the biodiversity value of their assets and assisting in restoration of biodiversity, training of communities in eco-business management and social development, such as support for Black Economic Empowerment in South Africa.

The project should have a fundamental impact on the way forest operations are managed in developing and emerging economies by moving from focusing solely on timber for the timber & timber products markets, to focusing on multiple resource use. This will assist forest operators justify the path to sustainable forest management and certification as the cost of this can be offset through additional revenue streams from ecosystem services. The intention is that the multiple land use model will be marketed and adopted as the new sustainable forestry model. This should also result in increased investment into forestry in developing economies by sustainable investors.

(3.4) Analytical Models and Tools for PES Design for Coastal Fishery and Flood Protection. The project and local partners will explore ways to use PES to protect coastal marine ecosystems, in particular coastal fisheries and flood protection. It will focus efforts in the first three years on preparatory work for one pilot project of each type, since not enough is known or developed thus far to implement pilot projects in this area. Toolkits and methods will be developed to identify potential application of PES, and a strategy for aggregating buyers and sellers will be explored and designed in at least one fishery site and one coastal protection site in East or Southern Africa and/or Tropical America. The focus will be on development of mechanisms to finance conservation of coastal fisheries and/or flood protection through payments from diverse private sector and municipal beneficiaries of ecosystem services. A Technical Workshop will be organized early in the project to analyse PES approaches and design principles for assessment tools, and to link with international initiatives that are potential users of project outputs. The proposal (Agardy et al. 2005) is summarized in **Annex 10**.

Coastal marine environments are among the most productive and threatened ecological systems on earth. Many have talked about the need for innovative financing of coastal ecosystem service protection through payment for ecosystem services (PES) mechanisms; and the sociopolitical demand for focused attention to coastal conservation has risen substantially in the wake of recent world events, such as tsunami and hurricane disasters. Currently, however, many of the social and economic values associated with fully functioning coastal systems such as flood protection remain *unaccounted* for in capital market transactions. As a result, the prospective harnessing of market institutions for more effective coastal ecosystem service protection is not well understood.

The project will help to extend the scope of ecosystem services analysis and development to coastal services. The goal will be to provide the supportive framework around which a small subset of pilot PES can be developed in Eastern and Southern Africa and tropical America. The component on coastal PES will enable the first step in a process that will bring PES to maturity in the coastal zone. The project will analyze nascent initiatives that have experimented with payments for coastal ecosystem services and identify potential buyers and sellers. The project will identify promising opportunities for coastal ecosystem protection for flood control and fisheries. The project will also lay the groundwork for implementing or improving pilot coastal PES projects. The project's outreach efforts will include targeted publications for key economic sectors, materials for the Ecosystem Marketplace to cover coastal

services, scientific publications aimed at coastal science and management associations, and awareness-raising in the lay media. In addition, the project will bridge sectors and disciplines in new ways by establishing a functional network of practitioners utilizing innovative financing mechanisms.

Coastal PES systems and associated market offsets have the potential to achieve significantly better and more cost-effective conservation outcomes than currently result from projects which seek to isolate and protect coastal areas from human encroachment. Coastal zones are by their very nature dynamic and ever changing. As a result, the establishment of protected zones in a sea of ecological and social change is not inherently effective. By clarifying the linkages between ecological function, ecosystem service delivery, and market incentives, PES systems and conservation offsets can become a standard tool for humans operating at a broad range of economic sectors to lower risk and manage projects. For example, coastal development offsets can help companies that impact coastal biodiversity to secure legal concessions and the social license to operate and to manage their costs and liabilities. The immediate impact of the Coastal Systems Payment for Ecosystem Services Project will be to ensure that new approaches will be explored in a variety of coastal settings. The project will magnify the impacts beyond the specific conservation outcomes at two test sites by developing and disseminating guidelines on PES project identification and planning assessment, and by stimulating systemic change as private and public developers recognize and use biodiversity offsets as a regular business practice.

These are major barriers; the use of market mechanisms for coastal systems is not yet a developed concept or standard practice. The social, political and economic institutions for coastal PES systems exist only in pre-formative stages and will need substantial, focused effort to create and sustain them.

Coastal ecological systems are highly complex and exist at the interface of terrestrial and oceanic systems and thus, often suffer from the classic 'tragedy of the commons' dilemma. They are generally poorly understood, undervalued, and largely at risk from coastal development and the indirect impacts that arise from land use in connected watersheds. Lack of clear ownership and fuzzy jurisdictions of management authorities has kept back the sorts of market solutions that have been successfully applied in terrestrial conservation. Finally, stakeholders have been hard to identify, creating special challenges in assembling and sustaining even those stakeholders with common interests.

To address these questions, the coastal PES program will need to start from the beginning and assemble the best available empirical evidence and supportive information to facilitate the development of sustainable markets. The project aims to establish the basic foundations for development, through separate funding, of a learning network of pilot coastal PES projects.

n) Output 1: Develop a Conceptual Framework and Decision Support Tool for Fishery and Flood Protection PES. Given that the concept of applying PES systems and market mechanisms to coastal systems is still in a nascent stage, significant background analytical work needs to be done in order to create a sustainable basis for implementation. The project team will assemble materials to document alternatives for implementation of Coastal PES systems, and provide a neutral source of information relevant to developing national and international policy and legal frameworks for coastal ecosystem market development. To support the project, a formal executive working group and informal learning group will be formed and are expected to evolve into the institutional capacity needed to carry forward well-developed markets for coastal ecosystem services.

Process. Early in this effort, the project team will assemble an analytical document that summarizes the best available information on coastal PES systems and identifies the most promising opportunities for implementation. This analysis is critical for rigorous identification of potential barriers as well as key stakeholders that will serve as a foundation for moving forward with PES systems. The document will include a matrix summarizing potential actors and market mechanisms, demonstrations, and generalizable

scenarios for developing full-fledged markets. This project will develop a set of analytical tools for assessing the feasibility and key design parameters for PES for coastal fishery and flood protection. An inter-disciplinary team with coastal scientific, economic and business expertise will adapt existing assessment tools for coastal ecosystem conservation planning and PES planning from other sectors, to develop a draft toolkit. To provide input to these activities, the team will pull together a working group of experts and stakeholders representing diverse expertise and backgrounds to serve as a formal review committee for the implementation of Coastal PES systems. This small working group, comprised of 10-12 individuals will work with the project team to identify potential pilot sites and market mechanisms that will be targeted in output 2.

o) Output 2: Feasibility Assessment for Coastal PES in Two Landscapes. The draft analytical framework and assessment tools will be tested in two sites in Eastern and Southern Africa and/or tropical America, one for coastal fishery protection and the other for flood protection. The analyses will be implemented with input from multi-stakeholder group in each location. Based on results from the assessment, pilot PES schemes will later be developed through co-financing.

Process. Candidate sites for coastal PES will be identified by the Katoomba Group regional networks in East and Southern Africa and Tropical America, based on criteria identified during preparation of Output 1. These will be evaluated and two sites selected, one for flood protection and one for fishery protection. The project team will collaborate with Katoomba Group members working in the coastal areas and with local multi-stakeholder groups already existing. Results will be presented for feedback to these groups as well as the Advisory Group and Katoomba Groups.

p) Output 3: Resource Materials on Coastal PES Compiled and Disseminated. **T**he team and Advisory Group will identify and compile resource materials on coastal PES and the revised analytical framework and feasibility assessment tools, to be disseminated through the Ecosystem Marketplace and the specialist listervs, newsletters and publications for diverse stakeholder groups (including beneficiaries) involved in coastal ecosystem management.

Process. Materials will be collected during the process of literature review and Advisory Group consultations. The Ecosystem Marketplace staff will edit and organize materials for dissemination.

Project Indicators, Risks and Assumptions

The Logframe (**Table 7**) summarizes the project indicators and assumptions.

Assumptions. The principal assumptions in this project are that demonstrable business and biodiversity benefits will be sufficient to sustain investor-buyer-seller-policymaker interest in PES; that potential regional network members and pilot implementers will remain actively and supportively engaged with the project; and that concerns of potential opponents of PES will be sufficiently addressed to avoid disrupting pilots and policy action.

Risks: There are five principal risks for this project:

1) That the individuals participating and benefiting from the Katoomba Group networks will not remain engaged in PES policy and programs. This will be mitigated by having a large enough cadre of involved individuals from each participating country, and facilitating continued engagement of members over time even as they change positions.
2) We recognize that events beyond our control, within countries or companies, may affect the ability for partner PES projects and initiative to succeed. We address this by working with a larger number of countries, pilots, PES schemes and support mechanisms, so that success in a significant proportion of them will be sufficient to be considered successful. We will develop and use selection criteria for choosing partners and pilots that are likely to be successful.
3) Should the pilot PES schemes in the learning networks not be successful, there may not be proven models to disseminate. We address this risk by working with a relatively large number of pilots around the world, in different contexts and design.
4) The project has multiple components, each of which is relatively complex and involves many different partners. We address this risk through careful institutional design and management, and mechanisms for feedback in every component.
5) There is a risk that the level of Katoomba Group and Marketplace support for national PES innovators provide by this project will be insufficient to achieve meaningful improvements in PES design and policy or to mobilize major new buyer interest. The project has built in active monitoring of activities and impacts into all three components, to enable adaptive management

The objective of the project is to establish institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services. Thus the principal indicators of achieving the project Objectives is the number of projects with improved designs for biodiversity conservation, and number of new projects implemented with improved designs. Forest Trends will also assess Forest Trends effectiveness in mobilizing new buyers for ecosystem services. The quality, breadth and depth of policy and design capacity among leaders from different sectors will be a key qualitative indicator, as will the number of countries whose policies or strategies for PES have been improved through project input. The national PES Institutional Inventories developed by the project, project case records, and policy documents will be used to track these indicators.

Forest Trends will track achievement of **Outcome 1** on development and utilization of market information by tracking the users and subscribers of the Marketplace, participation in Dialogues, while the financial sustainability of the service will be assessed by the proportion of the budget that is self-financed by the end of the project.

Outcome 2 on the Katoomba Group networks will be evaluated based on the level of regional participation, the number of project , policy or buyer innovations in which the project has contributed These will be tracked by survey tools, the national inventories and case reviews.

Progress on **Outcome 3** on Biodiversity Models will be tracked through country inventories noting development of new and improved types of biodiversity payment projects, project records showing preparation and dissemination of tools and reports, and policy statements from businesses, associations, NGOs and governments or inter-governmental agencies.

All of these achievements are based on assumptions that the quality of market information, project design and outputs are high, and that potential Katoomba Group members and pilot project implementers will remain actively engaged in project activities in a supportive context.

Expected Global Benefits

The ecosystem market information services provided by the Ecosystem Marketplace will dramatically reduce the costs of learning, transactions, project design and institutional and policy development for PES all around the globe. It will facilitate and empower the engagement of diverse stakeholder groups in the development of PES institutions and policies. It will enable program and project developers around the world to have access to state-of-the-art design principles and practical inputs. The service will power the interest of the private sector in PES and help to mobilize large new inflows of private finance into the conservation and management of ecosystem services.

The activities of the Katoomba Group networks will have significant benefits on the development of PES not only in the countries most actively involved, but also will develop expertise, analyses, resources and new networks that will mobilize increased activity and improved quality of diverse PES approaches more broadly in Africa and Latin America; many elements will also directly benefit PES institutional development in Asia. All of the models of payments for biodiversity conservation will be relevant and replicable globally, and help to raise awareness, interest and capacity of productive sectors to investment in biodiversity conservation.

By assisting in the development of viable PES that are pro-poor and equitable, the project will also have local impacts on people's livelihoods and contribute to achieving the Millennium Development Goals to reduce hunger and poverty, sustain the environment, provide access to water and improve health. These impacts will benefit not only the dozens of PES projects directly involved in the project, but also projects developed globally who benefit from lessons learned, examples, and mobilization of new finance for pro-poor PES.

Country Ownership

This is a global project whose objectives are consistent with international priorities as identified in the Convention for Biological Diversity, and Convention to Combat Desertification. There has been wide consultation already with key stakeholder groups concerned with PES from at least 20 countries, at larger meetings in Kenya in September 2004, Thailand in November 2004, Uganda in September 2005, and Brazil in November 2005, as well as in numerous smaller meetings. The proposed program responds directly to the needs expressed in these forums.

The Ecosystem Marketplace will serve global conservation, community, financial and other stakeholders around the globe, and will enable the global dissemination of information, analyses, resources and toolkits

developed in the course of this project. Leadership support for PES institutional development, project learning networks and community support and training will be provided in countries participating in regional networks in Tropical America and Eastern and Southern Africa. National institutions and initiatives will provide core experience contributed in the networks. The project recognizes that governments represent only one group of beneficiaries of the project and that achieving the project targets will involve mobilizing action and institutional development by private sector buyers and investors, civil society, consumer and other non-governmental groups. Developing governmental policy frameworks and institutions will indeed be a high priority, however no particular government ministry can logically take the lead for PES in general, although they may for certain types of PES.

The project is consistent with priorities identified in key forums:

- African Strategic Planning Workshop in Queen Elizabeth National Park, Uganda for E.S. Africa
- Katoomba Group
- Chinese PES Working Group
- Katoomba Group-Africa
- IUCN Global Conservation Congress, Bangkok recommendations
- CBD
- UNFCCC

United Nations will participate through UNDP, UNEP, the World Bank and IFAD.

The initial members of the two regional Katoomba Groups will be drawn from diverse stakeholder groups in selected countries of Eastern and Southern Africa (Kenya, Madagascar, Malawi, South Africa, Tanzania, Uganda) and Tropical America (Bolivia, Brazil, Colombia, Costa Rica, El Salvador, Mexico). The objective will be to have a critical mass of active PES innovators in different sectors within the country who can work together effectively to build the institutional and policy frameworks required for PES.

SUSTAINABILITY

The overall project strategy for sustainability is to build leadership capacity in Eastern and Southern Africa and tropical America, and to provide key tools that will help them to institutionalize high-quality PES strategies and programs in their countries—including reliable access to a sustainable source of timely, high-quality market information; analytical frameworks, lessons learned and an international network of technical expertise they can tap for policy and program development; and tested business and landscape models they can apply in their work. Market information services, resource materials and operational models will be available globally on a sustainable basis through the Ecosystem Marketplace, and through the various learning networks formed.

Global Market Information Services:

The Ecosystem Marketplace has identified and will develop, through this project, long-term sustainable financing options, thus significantly reducing its dependence on grants from 95% to no more than 70%. The Marketplace will evaluate potential clients and business opportunities from diverse types of advertising, as well as services including webinars, live and e-conference, specialized fee-based market analyses and reports, ratings and indexes, a directory of service providers, on-demand publishing and premium content subscription services. Preliminary analyses business opportunities are reported in the Business Plan. Most of the resources from this project going to develop content for the Marketplace will be used to improve currently weak components on Biodiversity PES and Community PES, and develop

multi-media communications and feedback strategies. Most of these costs should not recur after the project.

Regional Networks for PES Innovators

Regional initiatives in Eastern and Southern Africa and tropical America are designed explicitly to provide a sustainable foundation for PES initiatives, by strengthening capacity of national leaders in key sectors and supporting them to institutionalize new policies and programs. Resource materials will be available globally, in English and Spanish, and strengthened training and program support centers will support continued capacity-building efforts. Individual leaders trained during the project will sustain national efforts to promote ecosystem service markets, and provide a well-networked cadre of people from across critical sectors able to lead PES development. PES initiatives will be well linked formally and continue exchanging lessons learned. New institutions will be in place in participating countries in the regional networks that will provide technical and business services on a long-term sustainable basis.

By developing new approaches to aggregate buyers and by raising awareness of the potential business benefits of PES, partners in the Katoomba Group regional and international networks will be in a position to mobilize additional buyers over the long term. Major policy and institutional lessons learned through the project will be institutionalized in the national and international programs whose leaders are involved in the networks, and policy outreach. Strong networking and collaborative experiences among The Katoomba Group network members will provide the foundation and motivations for extending regional and international networking and knowledge-sharing initiatives of the Group well beyond the life of the project. Shared web-based networks can be regionally managed at low cost. As PES systems evolve and mature, priorities for action in the networks will also evolve, so that the groups may not continue in the same form.

Biodiversity Payment Models

This project will establish the foundations for continuing implementation of new models of PES for biodiversity conservation long after the end of the project. Key elements of sustainability will be the development and global dissemination of best practice guidelines, capacity-building in the learning networks, mobilization of government and business, policy support, and development of a pipeline of investable projects that will facilitate investment after the project is complete. Private corporations, international conservation organizations and national governments engaged in implementing the pilot schemes will have developed internal capacity and motivation to sustain the pilots and to institutionalize the models and processes in their normal operations.

Replicability

This project was designed explicitly to promote the replication of high-quality PES policies, strategies, effective business and program models and information services. The *Ecosystem Marketplace* will undertake systematic assessment of market information needs in diverse sectors for diverse stakeholders, which will create a foundation for long-term development of new information products and services to serve the sustainable development of ecosystem markets around the world. The analytical frames, structured market descriptions and assessments, and identifying of high priority market information needs will catalyze and facilitate the development by others of specialized global market information services, as well as regional information services. (This has already occurred with the development of a new Marketplace for the Northwestern US, which Forest Trends and The Katoomba Group are assisting.) Moreover, the project should have significant impacts on replicating PES models around the world, by dramatically reducing information and transaction costs through the diverse information services and products of the Ecosystem Marketplace.

Regional Katoomba Group networks activities will replicate PES support and technical services within the Eastern and Southern Africa and tropical America regions, including individual and institutional capacities for replicating good project and policy design. This work will strengthen institutions that can provide these services within the region over the long-term. The project will support development of strong personal and inter-institutional networks within the participating countries, that will enable replication of platforms for policy dialogue, technical exchange, etc. within those countries following the project. Similar regional networks will be replicated during and after the project elsewhere, including in Central and West Africa, China, Southeast Asia and Eastern Europe.

Demonstration of the financial feasibility of pilot biodiversity models is expected to encourage businesses, agencies and NGOs directly involved in the pilots to replicate investments in other sites.The international learning networks of innovators for PES policy and institutions and for biodiversity business and landscape models will facilitate the replication of successful policies and models throughout the developing world. The Learning Network for Agri-environmental projects will stimulate adoption of effective designs in projects of participating innovators and institutions. The lessons learned by companies and conservationists in the Biodiversity Offsets projects is being design to facilitate and catalyze replication of projects by those organizations in other sites. The Business Development Facility is developing a pipeline of promising forest PES enterprises so that other investors can link to new business opportunities to replicate these models. The Coastal PES models project will develop tools and an assessment framework and link with institutions that will stimulate adoption and adaptation of the tools in other coastal sites.

PART III: MANAGEMENT ARRANGEMENTS

Management

a) Project Leadership and Coordination. This project will be implemented by UNDP, and executed by UNOPS, using as necessary UNDP's existing infrastructure and services of both Headquarters (HQ) and Regional Coordination Units (RCUs). Forest Trends, an international NGO, will be sub-contracted to take the lead in overall program management and coordination. Overall project coordination, management and monitoring will be undertaken by senior staff of Forest Trends. Each component (The Ecosystem Marketplace, the Katoomba Group regional networks, the Business and Biodiversity Offset Program, the Business Development Facility, the Agricultural Landscape Models and Coastal PES models) will be managed by senior Forest Trends staff or consultants for those projects, and implemented with partner organizations on the ground.

The Katoomba Group was initiated by Forest Trends, initially as a loose coalition of individuals with shared interest in PES. As the Katoomba Group has matured and begun to implement projects together, they formed a more cohere institution and in early 2005 incorporated as a non-profit organization, but linked as a 'supporting organization' to Forest Trends. The Ecosystem Marketplace and the Katoomba Group Networks will run under the auspices of the Katoomba Group, which has a managing Board of Directors. .

The Component Leaders of the Ecosystem Marketplace, the Business Development Facility and the Business and Biodiversity Offset Project will report to the Project Leader. The Component Leaders of the Katoomba Group Networks, Payments in Agricultural Landscapes, and Coastal PES will report directly to the Project Manager who reports to the project leader. **Figure 3** in Section VI, Part II shows the project organizational chart.

The Executive Committee of the project will meet at least every three months to review progress. The Project Leadership Team and key staff will meet face-to-face twice each year for joint Project Planning Meetings, organized by the Project Manager, to develop detailed and coordinated Work Plans. An intranet system will be set up for the project, for internal communications, posting of reports and updates, etc. A centralized "tickler" system will be set up to notify when deliverables are due to and monitor their delivery. A centralized system for managing project budgets and invoices will be set up and managed by the Financial Controller. The Monitoring process for the whole project will be coordinated by the Global Network Coordinator, who will work together with the Project Manager.

b) Project Steering Committee. The Steering Committee for the overall project will include representatives from UNDP and UNOPS, senior directors from Forest Trends, and senior stakeholders from the Africa Katoomba Network and the Latin America Katoomba Network, including representatives from government and the private sector each. The Project Steering Committee will:

- Participate during the Project Inception Workshop and finalize the project budget, workplan, logframe and monitoring plan;
- Participate in annual project review meetings (held in alternating years with regional Katoomba Group meetings); and
- Participate in the Tripartite Review and Terminal Report for the project.

c) Ecosystem Marketplace. The Marketplace has a core editorial team led by its senior editors, and works with a large number of independent reporters, writers and stringers from all over the world, as well as

regular news sources from among Katoomba Group members and collaborating organizations. It overall editorial and business strategy and policies are provided by its International Advisory Committee composed of members of The Katoomba Group and international experts from media and communications. The editorial team, with input from the Advisory Committee, develops the pipeline of news and features articles, plans for Library development, implementation of the Market Watch, and organizes small teams to plan and develop new market information services. A consulting firm provides input on web design, and another on media communications.

d) Katoomba Group Networks. A Katoomba Group Coordinator will lead project's work in supporting the Tropical America and Eastern/Southern Africa regional networks, and the development of analyses, programs and resource materials related to policy and buyer mobilization. The network priorities for meeting agendas, development of resource materials, and management and content of the network web services will be set by the regional members at the meetings and in committees formed as needed. Forest Trends staff will be actively involved in the networks, providing regular input and stimulating exchanges. A small number of policy and project initiatives in each regional network will be selected according to agreed criteria, for more targeted technical support. These initiatives can request specific types of expertise from international and regional Katoomba Group experts, and the KG will organize and facilitate these "rapid response teams." Such services will be provided by several individuals just before or after each regional Katoomba Group meeting, and at least two other times each year, and will be available for consultations by phone and e-mail. These resource people will be remunerated for their time in special site visits, but will provide intermittent input remotely as part of their in-kind support.

e) Biodiversity Models. Each of the biodiversity models will be managed by a small team of Forest Trends staff and senior consultants. All will involve a core set of partners involved in field projects on the ground for which targeted technical and business support will be provided or mobilized by the project on a regular basis. Arrangements and agreements will vary according to context. All of the PES field projects and enterprises themselves will be independently organized and management; this project only provides advisory services. All of the Model projects will also have a cross-sectoral Technical Advisory Group that evaluates and devises methodologies and institutional approaches, and provides direct technical input to the core PES initiatives involved in the project. These Groups will meet once or twice each year. All the Models will also have a "learning network" associated whose members will receive regular updates about progress and learnings from the projects, and will share insights from their own experience.

Many of the core institutional actors indicated in the figure have played a central role already in shaping the Ecosystem Marketplace, the Katoomba Group (and the emerging regional networks), and were among the initial innovators of the work on biodiversity models. Forest Trends and the Katoomba Group have been able to count on their effective collaboration in the past and have confidence in their continued engagement.

Institutional Collaboration

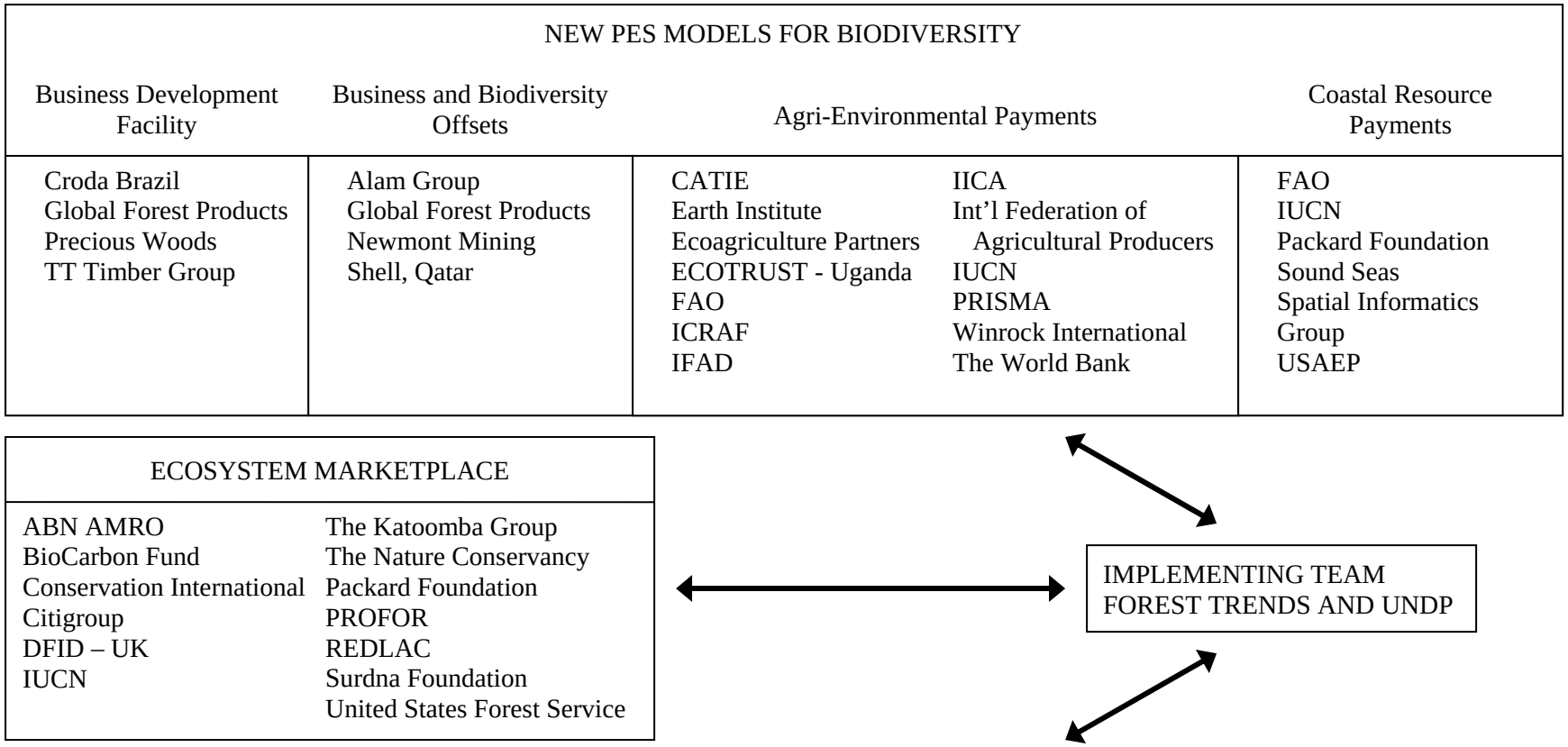
This project will be implemented with a large number of collaborating institutional partners, as summarized on the next page in **Figure 2**.

a) Ecosystem Marketplace. The Marketplace draws on a large number of institutional sponsors who not only provide financial support, but also supply key market information included in EM services. The EM has contractual arrangements for provision of market information with other organizations. These include institutions from major private sector and conservation organizations. The Advisory Board for the Marketplace also provides significant institutional support. Most of the members have been involved with the Marketplace since its inception in 2004.

b) Katoomba Group Regional Networks. **Figure 3** shows the initial organizations who have been instrumental to date in planning the Eastern and Southern Africa and tropical American Katoomba Group networks. They intentionally include representatives from organizations from public, private and civil society sectors—and buyers, sellers, policymakers, intermediaries, service providers and researchers. While Katoomba Group members will participate as individuals in networking activities, institutions will also be involved in specific activities, particularly for focus project and policy cases, organization of meetings, and provision of services to the group. Katoomba Group members from these and other institutions outside of the two regions will serve as mentors and on "rapid response" teams, including, for example, from IUCN, The World Bank, Forest-Re, RUPES, the U.S. Forest Service, New Forests Ltd. Many of the members of the international Katoomba Group who will be involved in the project have been collaborating with Forests Trends and the Group for as long as six years.

c)Biodiversity Payment Models. **Figure 2** also shows the collaborative working groups currently involved in each of the biodiversity payment model components of the project. Again, a principle is cross-sectoral membership. BBOP and BDF partners include those already in the learning network projects (though more are anticipated), while site partners for the Agricultural and Coastal Landscape Model projects will be selected as part of the project activities.

Figure 2: Institutional Collaborators



GEF and UNDP logos

Forest Trends will ensure that a GEF logo appears on all relevant GEF project publications, including among others, project hardware purchased with GEF funds. Any citation on publications regarding projects funded by GEF will also accord proper acknowledgment to GEF. The UNDP logo will be more prominent and separated from the GEF logo if possible, as indicated in guidelines.

PART IV. MONITORING AND EVALUATION PLAN AND BUDGET

Monitoring and Reporting

1. Project Inception Phase

A Project Inception Workshop will be conducted with the full project team, relevant Katoomba Network counterparts, co-financing partners, and representation from UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate.

A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

Additionally, the purpose and objective of the Inception Workshop will be to: (i) introduce project staff with UNDP-GEF expanded team which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings.

2. Monitoring responsibilities and events

A detailed schedule of project reviews meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator, based on the project's Annual Work Plan and its indicators. The Project Team will inform UNDP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

The Project Coordinator and the Project GEF Technical Advisor will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP and assisted by UNDP-GEF Regional Coordinating Unit.. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will

form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop and tentatively outlined in the indicative Impact Measurement Template at the end of this Annex. The measurement, of these will be undertaken through subcontracts or retainers with relevant institutions

a) Periodic monitoring of implementation progress will be undertaken by UNDP-HQ through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

UNDP Country Offices and UNDP-GEF RCUs as appropriate, will conduct yearly visits to projects that have field sites, or more often based on an agreed upon scheduled to be detailed in the project's Inception Report / Annual Work Plan to assess first hand project progress. A Field Visit Report will be prepared by UNDP and circulated no less than one month after the visit to the project team, all SC members, and UNDP-GEF.

Annual Monitoring will occur through the **Tripartite Review (TPR).** This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The project proponent will prepare an Annual Project Report (APR) and submit it to UNDP-HQ and UNDP-GEF regional office at least two weeks prior to the TPR for review and comments.

3. Terminal Tripartite Review (TTR)

The terminal tripartite review will be held in the last month of project operations. The project proponent is responsible for preparing the Terminal Report and submitting it to UNDP and LAC-GEF's Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

4. Project Monitoring Reporting

The Project Coordinator in conjunction with UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (f) are mandatory and strictly related to monitoring, while (g) through (h) have a broader function and the frequency and nature is project specific to be defined throughout implementation.

5. Inception Report

A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Firs Year/ Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from UNDP or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work

Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.

6. Annual Project Report (APR)

The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self -assessment report by project management to the CO and provides input to the country office reporting process and the ROAR, as well as forming a key input to the Tripartite Project Review. An APR will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work.

The format of the APR will include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP, CAE and other expenditure reports (ERP generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress.

7. Project Implementation Review (PIR)

The PIR is an annual monitoring process mandated by the GEF that is the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by the CO together with the project. The PIR can be prepared any time during the year (July-June) and ideally prior to the TPR. The PIR should then be discussed in the TPR so that the result would be a PIR that has been agreed upon by the project, the executing agency, UNDP CO and the concerned RC.

The individual PIRs will be collected, reviewed and analysed by the RCs prior to sending them to the focal area clusters at UNDP/GEF headquarters. The focal area clusters supported by UNDP/GEF M&E Unit analyse the PIRs by focal area, theme and region for common issues/results and lessons. The TAs and PTAs play a key role in this consolidating analysis.

The focal area PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings.

8. Quarterly Progress Reports

Short reports outlining main updates in project progress will be provided quarterly to UNDP and UNDP-GEF regional office by the project team. See format attached.

9. Periodic Thematic Reports

As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

10. Project Terminal Report

During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc.. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

11. Technical Reports

Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

12. Project Publications

Anticipated publications are described in detail above.

Independent Evaluation

The project will be subjected to at least two independent external evaluations as follows:

1. Mid-term Evaluation

An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by UNDP based on guidance from the Regional Coordinating Unit and UNDP-GEF.

2. Final Evaluation

An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by UNDP based on guidance from the Regional Coordinating Unit and UNDP-GEF.

3. Audit Clause

The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Learning and Knowledge Sharing

Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums described above. In addition, the project will participate in UNDP/GEF sponsored networks, organized for Senior Personnel working on projects related to Payments for Ecosystem Services.

The project will also identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.

Table 6. Indicative Monitoring and Evaluation Work plan and corresponding Budget

Type of M&E activity	Responsible Parties	Budget US$ Excluding project team Staff time	Time frame
Inception Workshop	Project Coordinator UNDP CO UNDP GEF	$5000	Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost $60,000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Project GEF Technical Advisor and Project Coordinator Measurements by regional field officers and local IAs	To be determined as part of the Annual Work Plan's preparation. Indicative cost $30,000	Annually prior to APR/PIR and to the definition of annual work plans

APR and PIR	Project Team UNDP UNDP-GEF	None	Annually
TPR and TPR report	Government Counterparts UNDP CO Project team UNDP-GEF Regional Coordinating Unit	None	Every year, upon receipt of APR

Type of M&E activity	Responsible Parties	Budget US$ Excluding project team Staff time	Time frame
Steering Committee Meetings	Project Coordinator UNDP CO	None	Following Project IW and subsequently at least once a year
Periodic status reports	Project team	$5,000	To be determined by Project team and UNDP CO
Technical reports	Project team Hired consultants as needed	$15,000	To be determined by Project Team and UNDP
Mid-term External Evaluation	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	$75,000	At the mid-point of project implementation.
Final External Evaluation	Project team, UNDP UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	$75,000	At the end of project implementation
Terminal Report	Project team UNDP External Consultant	None	At least one month before the end of the project
Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	$15,000 (average $3,000 per year)	Yearly
Audit	UNDP Project team	$5,000 (average $1250 per year)	Yearly

Type of M&E activity	Responsible Parties	Budget US$ Excluding project team Staff time	Time frame
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP Country Office UNDP-GEF Regional Coordinating Unit (as appropriate) Government representatives	15,000 (average one visit per year)	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US$ 300,000	

See Impact Measurement Template in **Annex 11**.

Details on the GEF SP-2 Tracking Tool are provided in **Annex 13**.

SECTION II: Strategic Results Framework and GEF Increment

PART I. INCREMENTAL COST ANALYSIS

Broad Development Objective

The overall Development Objective is institutionalizing and scaling up financial payments for ecosystem stewardship so that the financial value of these services is fully reflected in economic decision-making by land managers, investors, consumers and others..

Global Environmental Objective

The Project will conserve biodiversity and ecosystem services by supporting the institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation.

This Objective will be achieved by providing timely market information through a global Ecosystem Marketplace service, by providing a regional mechanisms for policy and institutional support to national PES innovators in Eastern and Southern Africa and tropical America, and by developing operational capacity for new types of PES for biodiversity conservation.

Overview

Baseline and Incremental Costs have been assessed provisionally over the full project Forest Trends years of the GEF intervention. Thematically, the Costs cover provision of ecosystem market information services, technical support and capacity-building for PES policy and institutional development in East and Southern Africa and Tropical America, and the development, testing and promotion of new operational models for biodiversity conservation payments.

Costs include the costs of national and county government agencies, semi-governmental organisations and associations, large and small private sector organisations, cooperatives, local and international NGOs, and international partners including GEF. Incremental costs include both the costs of reorienting (or modifying) baseline activities and the costs of supporting additional activities required to conserve/sustainable use the biodiversity.

Baseline Scenario

In the baseline, the main force driving the institutional development of Payments for Ecosystem Services in developing countries will be the continued ad hoc projects financed by donor agencies and international NGOs. Overall investment in PES will be hampered as market actors continue to face high transaction and information costs and uncertain risks, have few convincing examples of business success, and difficulties in accessing relevant technical assistance. Payments for biodiversity stewardship will grow especially slowly due to design challenges and weak market demand. Low-income rural communities will continue to be bypassed by major new investments in PES. Private sector participation as ecosystems service buyers will remain very limited. Initiatives to support PES development and raise capacity will continue to be led principally by international public agencies, academics, and conservation NGOs in the early stages of the learning curve, rather than by business leaders and seasoned leaders experienced in PES development. The Katoomba Group network, which is comprised of such leaders,

will provide only limited and ad hoc support to PES innovators. Policies will largely not provide an enabling framework for PES development.

In the baseline, the aggregate impact of PES initiatives on conservation of biodiversity and ecosystems will continue to be limited, as result of design weaknesses in projects, poor coordination of PES projects with broader conservation strategies, and PES development independent of broader economic forces determining pressures on and values of ecosystem services.

Baseline Cost Analysis

Definition of project baseline. Most of the work needed to establish successful PES will have to be done at national level, and is specific to the type of ecosystem service, the type of site and the type of market instrument. A growing volume of work is currently being done by a large numbers of actors to plan and organize new payment systems, and implement new pilot projects. The country inventories in Africa, and the interviews in Brazil, China and Latin America, and inventory of multilateral development agency investment in PES (**Annex 12b)** illustrate the ongoing activity to establish information services, develop policy and regulatory frameworks, develop and disseminate new technical knowledge, and create or adapt institutions for PES.

However, cross-cutting global and regional level mechanisms and activities can play a vital role in removing barriers and filling gaps at the national level. Key areas where regional and global activities can have important economics of scale and scope include:

- Synthesis and monitoring of global market information and trends;
- Synthesis of lessons learned from specific types of PES being implemented in a small number of sites in different countries and regions;
- Facilitating information-sharing among PES innovators;
- Resource-pooling to undertake activities that will benefit diverse stakeholders in diverse types of PES across countries (e.g., mobilizing international buyers).

In this section Forest Trends limits the baseline analysis to global, and regional initiatives underway and planned to build institutional capacity for PES in developing countries, as well as national institution-building activities in the Katoomba Group network countries, and continuation of ongoing activities of The Katoomba Group and Forest Trends into 2006-2010. Most capacity-building and institutional development efforts in the baseline are focused on specific projects, specific sectoral actors, or on national government agencies. These are summarized in **Annex 12a.**

Global PES Market Information. Existing sources of PES market information include websites managed by The World Bank, IIED (through FLOWS and a new service being developed for community watershed services), WWF (just recently), Nature's Services (for U.S.), CINCS (for carbon projects), Nature Valuation (Dutch on financing ecosystem services) and some implementing agencies that have websites documenting PES initiatives and lessons learned. However, most of these simply provide library-type services targeting a narrow range of markets and do not support financial, business or investment needs, nor do they track market activity.

The exceptions are a few information services, including Earth Assets Group, Ecosystem Services Project and Ecosystemvaluation.org, and a number of companies and organizations offering PES-related information and news, such as environmental commodity brokerages (Chicago Climate Exchange, Cantor-Fitzegerald, NatSource Inc., CO2e.com and Point Carbon) and environmental service providers (such as ERT EcoLands Program and Environmental Banc and Exchange). However all of these are narrowly focused on particular PES market segments or geographic regions; most do not address information needs in developing countries.

The Katoomba Group's Ecosystem Marketplace uniquely provides market information across the full range of ecosystem services, geographic regions and market actors. Thus Forest Trends consider the project baseline on Global PES Market Information to be the projected services produced by the Marketplace in the absence of GEF support. Forest Trends anticipate that without the GEF, the Katoomba Group's Ecosystem Marketplace will continue to function in providing basic market information, however:

- Coverage of biodiversity-related markets would be modest over the next 4 years;
- The Marketplace will not be able to provide significant original market research;
- The Marketplace will not develop as a platform for information on PES for communities and community support institutions;
- Development of market information services specifically for community actors would be quite modest;
- Outreach and education of market actors would be limited;
- The Marketplace will continue to depend principally upon donor funding to support the market information services.

*Institutional Capacity for PES in Africa and Latin America***.** There are a number of current and planned global and regional capacity-building activities for PES 2006-2010 in Eastern and Southern Africa and Latin America, including:

Training

- Training activities on the Clean Development Mechanism and LULUCF have been organized under the UNFCCC and as part of an FAO/UNEP/ICRAF collaborative project;
- The World Bank has implemented a number of formal training courses on PES, especially for watersheds, with greatest activity to date in Latin America, and in its new PES projects in Africa intend to provide short-term technical assistance;
- The World Bank BioCarbon Fund is providing technical assistance for initial project establishment activities.

Lessons Learned, Resource Materials and Guidelines

- Ford Foundation-sponsored dialogues and research on relevance and impacts of PES on poverty, in Indonesia, eastern and southern Africa and Central America;
- The Environmental Economics Network for Africa has worked on conservation finance in general, and is interested in PES;
- IUCN, IIED, UNDP, FAO and others have collected and synthesized lessons learned about LULUCF carbon emission offset projects and watershed payments, and developed introductory handbooks on some types of PES projects;
- The International Development Research Centre of Canada is in the planning phase for a program of research on contributions of PES to poverty reduction

PES Support Networks

A project of GTZ, FAO, and the Netherlands in Latin America includes some strategic planning and capacity-building;

- The RUPES project ("Rewarding Upland Poor for Ecosystem Services"), led by ICRAF and supported by IFAD, has been working in several Asian countries on community-based PES and is considering possible expansion to work in Africa, where ICRAF is already involved in several action research PES * projects;
- IIED, WWF and CARE are partnering in a new project on watershed payments, focused on pilot project development in different parts of the developing world;
- A project is under development of CATIE, Hohenheim University and CIFOR to develop toolkits for PES in Argentina, Mexico and Costa Rica)

- The University of Peace in Costa Rica is exploring with a number of Latin American researchers and implementation agencies interest in a Latin American PES network;
- UNEP recently convened a workshop to discuss integration of PES into the program of work of the Multilateral Environmental Conventions, and has decided to move forward in this area.

Other relevant work in Asia includes:

- RECOFTC, based in Bangkok, has begun the planning phase for a project to provide technical assistance in forest PES in south and southeast Asia;
- Winrock International has organized a network of researchers on PES in Asia.

There are also a large number of investments in specific national PES projects, which include institution-building elements, particularly by multilateral and a few donor agencies. While global and regional capacity-building activities 2006-2010 are projected to increase, they will fall far short of meeting the needs of the diverse market and policy actors who need to be engaged in scaling up these markets. The focus of most capacity-building services is on project initiation and design and compliance with market rules. There is little support for strategic policy analysis and planning for PES, for development of key institutions for PES, for engaging with and mobilizing private sector buyers and investors for PES, or for the provision of business advisory and technical support for ongoing project development. Most have a limited number of beneficiaries of capacity-building, and do not have a strategic framework for cross-sectoral institutional development of PES.

A majority of the initiatives above will be implemented by Katoomba Group members, but they are not well articulated. Without this GEF/UNDP project, the Katoomba Group will continue to function as an international networking group, holding annual meetings and occasional expert panels in individual countries. It will not have the capacity to mobilize strategic input at project or national levels.

Operational Models for Biodiversity Payments. The development of PES for biodiversity faces many barriers discussed above, and current models for PES for biodiversity are limited. Through the Katoomba Group network contacts, Forest Trends began in 2004 to explore the development of projects that would provide targeted technical and market analysis and support for pilot projects of innovative new types of biodiversity payment schemes, in particular biodiversity offset, forest PES enterprises, and agri-environmental payments to reduce deforestation in the agricultural frontier. It had also begun to analyze lessons learned about pro-poor, pro-biodiversity carbon forestry offset projects, and to evaluate the desirability of expanding work on coastal marine ecosystems. Without this GEF project, Forest Trends will note be able to provide technical assistance to pilot projects, and will not be available to draw and compare lessons learned across sites, or to communicate results to a broader policy, business and community audiences.

There are few regional initiatives to provide such support to development of operational models for biodiversity PES in relation to offsets or forest enterprises and none that could identify for coastal ecosystem protection. There is a large body of work in North America and Europe on agri-environmental payments—in the context of large-scale public subsidy systems, that provides important insights into design of payment systems that have higher biodiversity benefits. And there is also highly relevant experience in relation to individual country projects supported by the World Bank, IDB, GEF, ICRAF, UN agencies, FAO and others, but little of this experience has been reviewed and synthesized. Moreover, there are few ongoing activities to systematically devise, support, evaluate and promote knowledge-sharing and policy reform on new types of models relevant for low- and middle-income developing countries. A particular gap is efforts that tap private, civic or municipal buyers of biodiversity stewardship services of farmers and farming communities, to deliver landscape-scale biodiversity benefits.

Total Baseline Costs. Based on the above analysis, the project calculates that total baseline funding on regional and international institutional capacity [excluding management and monitoring costs] would be:

$111.88 million over the years. This includes $3.84 million for the Marketplace, $97.29 mln for institution-buildling in the eastern and southern Africa and tropical America regions, and $10.75 million for developing and evaluating new operational models of biodiversity conservation.

GEF Alternative

The alternative consists of modifying baseline initiatives and supporting additional initiatives in order to establish the institutional capacity for expanding PES globally, and particularly in eastern and Southern Africa and tropical America.

Table 7 presents a status report on Cash Commitments for Co-Financing of the GEF Alternative. Biodiversity Offsets (Sub-Outcome 3.2) has 4:1 co-financing. The Ecosystem Marketplace (Outcome 1), models for Agri-Environmental (Sub-Outcome 3.1) and Biodiversity Offsets (Sub-Outcome 3.2) have more than 3:1 co-financing confirmed, the Katoomba Group networks (Outcome 2) and the Business Development Facility (Sub-Outcome 3.3) have more than 1.5:1 and Coastal Payments (Sub-Outcome 3.4) has 1.2:1.

This co-financing does not include portions of confirmed or anticipated funding from these sources that will be allocated to other outputs or other geographic areas.

Forest Trends anticipates very considerable additional cash and "in-kind" co-financing during the course of the project, from additional PES projects and companies in the learning networks, institutional contributions from members of the regional Katoomba Group networks, private buyers and investors, and other donors organizations.

Outcome 1: Ecosystem Marketplace. Under Outcome 1, the project will provide timely, relevant market information for PES to stakeholders globally, through the Katoomba Group's Ecosystem Marketplace. This will be achieved through (i) Deepening of news coverage and expansion of market information services for biodiversity conservation markets; (ii) Expanding content and market information services relevant for community-based stakeholders; (iii) Enhanced awareness, utilization and application of Marketplace services; and (iv) Establishment of financial sustainability of the Marketplace information services. With investment in the baseline at $3.84 million, the Alternative Outcome costs $9.32 million, with Incremental cost of $5.47 million. The GEF contribution would be $1.82 million.

Main co-financers include: US Forest Service, Packard Foundation, World Bank, Citigroup, Swiss-Re, IFAD, FAO, Moore Foundation, Surdna Foundation, ABN-AMRO, WWF, TNC, IUCN, Conservation International, DFID and the UK Forestry Commission. Extensive in-kind co-financing will come from Katoomba Group members involved in market information collection, reporting, interpretation, etc.

Outcome 2: Regional Katoomba Group Networks. This Outcome aims to improve capacity and provide technical assistance to national champions and stakeholders of PES in at least 10 countries in East and Southern Africa and tropical America for institutional and policy development for PES. This will be achieved through: (i) a regional Katoomba Group Network for Eastern and Southern Africa; (ii) a regional Katoomba Group Network for tropical America; (iii) development and dissemination of models, tools and best practice guidelines for PES policy, planning and institutions; and (iv) Development and dissemination of tools and institutional models for aggregating private sector buyers of ecosystem services.

Relative to investment in the baseline at an estimated $97.29 million, the Alternative Outcome costs $101.66 million, with the total incremental cost of $4.37 million. GEF contribution will be $1.68 million.

Main co-financers include: DFID, FAO, IFAD, PROFOR, World Bank, Blue Moon Fund, Mitsubishi International, Moore Foundation, and VK Rasmussen. There are a large number of in-kind co-financiers, including government agencies, NGOs, private industries, community-based organizations, donors and others, working on policy and field initiatives associated with this project.

Outcome 3: Operational Models for Biodiversity Payments. This Outcome aims to develop the operational capacity to effectively design, establish and implement new types of PES instruments for biodiversity conservation. It includes Forest Trends sub-Outcomes:

- Payments for biodiversity conservation in agricultural landscapes;
- Biodiversity offsets for business developments;
- PES business in small and medium-sized forest enterprises; and
- Payments for coastal fishery and flood protection.

For **Agri-ecological payments**, the baseline is $6 million, and costs of the Alternative Outcome will be $8.05 million, of which $2.05 million would be incremental. GEF Contribution to the increment is $0.59 million. Major co-financing will be from FAO, Moore Foundation and Ecoagriculture Partners. Collaborating farmer and agricultural organizations, agribusinesses, conservation agencies and government agencies will provide in-kind co-financing. This project will also collaborate with UNDP-GEF projects working on biodiversity in agricultural landscapes in Central America and East Africa.

For the **Business and Biodiversity Offsets Project**, the cost of the baseline is $2.5 million relative to an Alternative Outcome of $5.85 million, of which $3.35 million will be incremental. GEF Contribution to the increment is $0.67 million. Major co-financing will be from USAID, ALCOA, PROFOR, the Goldman Fund and Conservation International. Collaborating businesses, conservation partners, and the technical advisory committee members will provide an equivalent level of in-kind co-financing.

For **Business Development Facility**, the cost of the baseline is $2 million, and the Alternative Outcome will be $3.95 million, of which $1.95 would be incremental. GEF Contribution to the increment is $0.68 million. Major co-financing will come from Citigroup, HSBC, IFC, Surdna, and SIDA. Collaborating forest enterprises will provide an equivalent level of in-kind co-financing.

For **Coastal Protection Payments**, the baseline is only $0.25, while costs of the Alternative Outcome will be $0.75 million, of which $0.52 would be incremental. GEF Contribution to the increment is $0.24 million. Main cash co-financing will be from the Packard and Moore Foundations. Collaborators in the pilot sites will provide in-kind co-financing.

Incremental Cost

The matrix below summarises the baseline, alternative and incremental costs expenditures during the Project. From a total baseline of $111.88 million, the total incremental cost of the project is $17.72 million (excluding the PDF B), with a GEF contribution of $5.7 million (i.e. 4 % of the total cost and 32% of the incremental cost). With additional co-financing anticipated during the course of the project, the GEF share is expected to decline.

Table 7. Incremental Cost Matrix (4 years 2006-2010)

	Description	Baseline	Alternative	Incremental Cost (US$)	GEF Contribution
Outcome 1	Ecosystem Marketplace : Biodiversity, Community information, Outreach	3,840,000	9,316,363	5,476,363	1,817,780
Outcome 2	Katoomba Group Regional Networks in East and Southern Africa and Tropical America	97,295,000	101,666,780	4,371,780	1,687,697
Outcome 3.1	Landscape Models for Agri-Environmental payments	6,000,000	8,051,573	2,051,573	592,490
Outcome 3.2	Business Models for Biodiversity Offsets	2,500,000	5,850,084	3,350,084	671,001
Outcome 3.3	Business Models for PES in Forest Enterprises	2,000,000	3,951,073	1,951,073	688,240
Outcome 3.4	Landscape Models for Coastal Protection Payments	250,000	777,065	527,065	243,732
Total Costs		$111,885,000	$129,612,939	$17,727,939	$5,700,939

See **Annex 13**, Baseline Tables

PART II. LOGICAL FRAMEWORK ANALYSIS

Table 8: Logical Framework for Project on Institutionalizing Payments for Ecosystem Services

Goal: The Overall Goal of the Project is to increase the financial incentives for conservation of ecosystems and biodiversity.

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Project Objective: To establish institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services Total budget: $1,425,000/year over 4 years (including management, monitoring and evaluation, UNOPS)		Number of new PES schemes developed with improved design in project countries	# in national PES inventories	0	8	1 scheme in most countries in KG networks
		Number of PES projects with new biodiversity models		0	12	Most projects in learning networks
		Number of established PES projects with improved biodiversity outcomes	Project assessments	0	8	1 scheme in most countries in KG networks
		Number of PES schemes with significant increase in number of buyers as a result of project activities		0	4	Buyer mobilization pilots in KG networks
		Volume in US$ of PES operating to which the project contributed		0	$50M	Value of above sets of projects

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Project Objective: To establish institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services Total budget: $1,425,000/year over 4 years (including management, monitoring and evaluation, UNOPS)		Number of hectares of land in project-related PES with improved biodiversity impact	Survey of KG members	Tbd for projects	100% increase	Biodiversity impacts in above projects
		Number of countries with leaders from key stakeholder groups with capacity for strategic analysis, planning and implementation of PES schemes and actively networked	Country PES inventories	0	8	Anticipate 8-12 from each participating country
		Number of countries with new policies or plans supporting or improving PES as a result of project	Survey of KG members Country reports to UNCBD provide info on PES	0	8	Diverse outcomes may include changing regulations, policies rights, institutions
Outcome 1: Timely, relevant, market information for PES available to all stakeholders globally, through the Katoomba Group's Ecosystem Marketplace ($453,000/yr)	Output 1.1 Ecosystem Marketplace bulletin and website have expanded and deepened coverage of biodiversity PES and new market information services	Ecosystem Marketplace widely used by key market actors around the world	Marketplace user tracking, by country and type Subscriptions Participants in Katoomba Dialogues	18,000 (10,000 in US & UK: 8,000 international) 1,200 500	75,000 (25,000 outside US, UK) 5,000 3,000	Systematic outreach efforts to diverse stakeholders will be made through the communications activities Katoomba Group partner institutions will actively promote new users

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Outcome 1: Timely, relevant, market information for PES available to all stakeholders globally, through the Katoomba Group's Ecosystem Marketplace ($453,000/yr)	Output 1.2 Ecosystem Marketplace (EM) has expanded information services relevant for community-based stakeholders on website, bulletin and other information centers	Extensive Biodiversity PES market information services available through Marketplace Extensive Community PES market information services available through Marketplace	Content Analysis	2005 review of content/ services	2010 review of content/ services	New market information services will reach users with out internet access
	Output 1.3 Awareness, utilization and application of EM information services by key stakeholders Output 1.4 EM is financially sustainable	Marketplace is financially sustainable	Proportion of budget self-financed relative to grants	5%	30%	Anticipated financial demand for market information services will be realized

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Outcome 2: National champions and stakeholders of PES in E. and S. Africa and Tropical America have improved capacity and access to technical assistance for institutional and policy development for PES ($423,000/yr)	Output 2.1 Fully functioning East and Southern African Katoomba Group (KG) network providing information, analytical tools and technical support to key stakeholders, including community organizations Output 2.2 Fully functioning Tropical America Katoomba Group network providing information, analytical tools and technical support to key stakeholders, including community organizations	Number of E. and .S. Africa and tropical America national PES leaders in key sectors actively engaged in and benefiting form Katoomba Group networks	Survey of regional Katoomba Group members	0	100	60-70 members in each regional group

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Outcome 2: National champions and stakeholders of PES in E. and S. Africa and Tropical America have improved capacity and access to technical assistance for institutional and policy development for PES ($423,000/yr)	Output 2.3 Models, Tools and Best Practice Guidelines for PES Policy, Planning and Institutions developed and disseminated in East Africa and Tropical America regional netwoks	Number of cases documented of PES policy or institutional innovation instigated by KG network members		0	8	At least one in each country
		Increased participation of rural communities in PES as a result of project activities	National PES inventories	See country inventory	8	At least one PES scheme newly integrating community producers in each country
		Number of mechanisms for PES buyers aggregation tested and evaluated	Case reviews	0	2	At least two test sites for buyer aggregation and mobilization
		Synthesis and dissemination of lessons learned on key themes of PES policy and program design	Number of reports	0	6	Reports on topics e.g., ES rights, roles of government in PES, equity in PES, buyer mobilization

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Outcome 3: Operational models and capacity to effectively design, establish and implement new types of PES for biodiversity conservation ($549,000/year)		Collaborating countries are implementing new types of PES for biodiversity conservation	Country inventories	0	20	
Sub-Outcome 3.1 Operational models and capacity to effectively design, establish and implement effective payment for biodiversity conservation in agricultural landscapes ($146,000/year)	Output 3.1.1 Learning Network actively sharing, evaluating and disseminating best practices on payments for BD in agricultural landscapes Output 3.1.2 Improved payment schemes designed and piloted in E. and S. Africa and Tropical America Output 3.1.3 New approaches to agri-environmental payments informing decision-making by national farmer and or industry groups	Number of schemes of improved agri-ecological PES due to project	Country inventories	0	3	These will be drawn from learning networks, as well as projects in test landscapes
		Lessons learned from landscape models synthesized	Reports	0	2	
		New approaches reflected in policy design	Policy statements	0	3	

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Sub-Outcome 3.2 Operational models and capacity to effectively design, establish and implement biodiversity offsets ($172,000)	Output 3.2.1 Participating offsets projects designed, implemented Output 3.2.2 Best practices and lessons learned documented, disseminated and in use Output 3.2.3 Biodiversity offsets endorsed by key institutions and companies	Number of businesses implementing improved biodiversity offsets	Country inventories	0	6	Businesses will realize demonstrable benefits from participating in offsets activities Biodiversity offsets developed will be ecologically sound
		Lessons learned from business models synthesized	Report	0	2	
		Policies or new offset initiatives adopted by businesses	Policy statements	0	4	

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Sub-Outcome 3.3 Operational models and capacity to effectively design, establish and implement PES for biodiversity in forest enterprises in S. and E. Africa and Tropical America ($172,000/year)	Output 3.3.1 New PES activities in forest enterprises designed and implemented with project support Output 3.3.2 Cases documented, lessons synthesized and tool-kit developed on how to set-up and run PES in forest enterprises Output 3.3.3 Pipeline developed for investment in PES in forest enterprises and strategy for support services	Number of businesses implementing new PES in forest enterprises	County inventories	0	6	Half of enterprises evaluated will incorporate biodiversity payments
		Lessons learned from PES in forest enterprises synthesized	Report	0	2	

Objective	Output	Indicator	Means of Verification	Baseline	Target (2010)	Assumptions
Sub-Outcome 3.4 Develop assessment tools for coastal fishery and flood protection PES at landscape scale	Output 3.4.1 Analytical framework and tools designed to evaluate & design PES for coastal fishery and flood protection	Analytical framework for coastal PES developed	Report	0	2	
	Output 3.4.2 Framework and tools used to evaluate the potential and design for two coastal PES projects	Assessment tools developed and tested in two sites	Number of sites evaluated with toolkits	0	2	Pre-assessments will identify viable opportunities for coastal PES
	Output 3.4.3 Resource materials on coastal PES compiled and disseminated					

Table 9. Indicative Outputs, Activities and Workplan

Outcome	Outputs	Activities	Year 1	Year 2	Year 3	Year 4
Outcome 1: Timely, relevant, market information for PES available to all stakeholders globally, through The Katoomba Group's Ecosystem Marketplace	Output 1.1 Ecosystem Marketplace bulletin and website have expanded and deepened coverage of biodiversity PES and new market information services	1.1.1 Expand BD market news and analyses	X	X	X	X
		1.1.2 Develop BD market tracking -MarketWatch		X	X	X
		1.1.3 New BD market info services planning and implementation	X	X	X	X
	Output 1.2 Ecosystem Marketplace has expanded information services relevant for community-based stakeholders on website, bulletin and other information services	1.2.1 Organize community advisory group	X			
		1.2.2 Design of community portal	X			
		1.2.3 Expansion of content on communities & PES	X	X	X	X
		1.2.4 Development of new community market info services		X	X	X
	Output 1.3 Awareness, utilization and application of Ecosystem Marketplace information servicees by key stakeholder groups	1.3.1 Understand audience information needs	X		X	
		1.3.2 Marketing and outreach through partners and networks	X	X	X	X
		1.3.3 Public education and policy dialogues	X	X	X	X

	Output 1.4 Ecosystem Marketplace is financially sustainable	1.4.1 Financial analysis of proposed fee-based information services	X	X	X	X
		1.4.2 Advertising strategy and implementation	X	X	X	X
		1.4.3 Engage with potential sponsors and investors	X	X	X	X
		1.4.4 Implement and monitor business plan	X	X	X	X
Outcome 2 National champions and stakeholders of PES in at least 10 countries in E. and S. Africa and Tropical America have improved capacity and access to technical assistance for institutional and policy development for PES	Output 2.1 Fully functioning East and Southern African Katoomba Group network providing information, analytical tools and technical support to key stakeholders, including community organizations	2.1.1 Organization of regional networks	X			
		2.1.2 Web-based and other networking services	X	X	X	X
		2.1.3Country PES institutional inventories	X			X
		2.1.4 Organization of annual meetings	X	X	X	X
		2.1.5 Provision of expert policy & project support	X	X	X	X
		2.1.6 Cross-site visits		X	X	X
	Output 2.2 Fully functioning Tropical America Katoomba Group network providing information, analytical tools and technical support to key stakeholders, including community organizations	2.2.1 Organization of regional networks	X			
		2.2.2 Web-based and other networking services	X	X	X	X
		2.2.3 Country PES institutional inventories	X			X
		2.2.4 Organization of annual meetings	X	X	X	X
		2.2.5 Provision of expert policy & project support	X	X	X	X
		2.2.6 Cross-site visits		X	X	X

	Output 2.3 Models, Tools and Best Practice Guidelines for PES Policy, Planning and Institutions developed and disseminated in E.and S. Africa and Tropical America	2.3.1 Review and synthesize lessons learned from existing policy, planning and institutional models internationally	X	X		
		2.3.2 Network members assess policy, planning, and institutional PES experience within region		X	X	
		2.3.3 Compile and disseminate resource and training materials		X	X	X
		2.3.4 Participate in regional PES policy workshops	X	X	X	X
	Output 2.4 Tools and institutional mechanisms for mobilizing and aggregating private sector buyers developed and tested in Africa and Tropical America regional networks	2.4.1 Consult with ES buyers and beneficiaries and develop analytical framework for mobilization of new ES buyers	X			
		2.4.2 Evaluate existing models for aggregating buyers for PES	X	X		
		2.4.3 With Katoomba Group partners, evaluate opportunities for private sector buyer mobilization in two PES initiatives in ESA and TA and support mobilization efforts		X	X	X
		2.4.4 Develop and disseminate tools and lessons learned about private sector mobilization for PES			X	X

Sub-Outcome 3.1 Operational models and capacity to design, establish and implement effective payment to support biodiversity conservation in agricultural landscapes	Output 3.1.1 Learning Network actively sharing, evaluating and disseminating best practices on payments for BD in agricultural landscapes	3.1.1.1 Review international experience in design of agri-env payments for landscape impacts 3.1.1.2 Compile and develop resource and best practice materials based on international and project experience 3.1.1.3 Disseminate materials through Katoomba Group networks, Ecosystem Marketplace, EP partners	X	X	 X X	 X X
	Output 3.1.2 Improved payment schemes designed and piloted in E.S. Africa and Tropical America	3.1.2.1 Select project partners in two agricultural landscapes in ESA, TA with global biodiversity values 3.1.2.2 Assist projects to develop or modify designs to enhance BD 3.1.2.3 Monitor implementation and impacts	X X	 X X	 X	 X
	Output 3.1.3 New approaches to agri-environmental payments informing decision-making by national, farmer and/or industry groups	3.1.3.1 Engage with and brief key government, farmer and industry organizations about new models 3.1.3.1. Media and policy seminars about new models		X	X X	X X
Sub-Outcome 3.2 Operational models and capacity to effectively design, establish and implement business biodiversity offsets	Output 3.2.1 Participating offset projects designed, implemented	3.2.1.1 Candidate projects identified and evaluated 3.2.1.2 Development of project biodiversity and other baselines 3.2.1.3 Design of offsets 3.2.1.4 Monitoring of offset implementation and outcomes	X X X	 X	 X	 X

	Output 3.2.2 Best Practices and lessons learned documented, disseminated and in use	3.2.2.1 Compile and develop resource and best practice materials 3.2.2.2 Review materials with Advisory Group 3.2.2.3 Disseminate materials through Katoomba Group networks, Ecosystem Marketplace, partners	X X 	X X 	X X X	X X X
	Output 3.2.3 Biodiversity offsets endorsed by key institutions and companies	3.2.3.1 Engage with and brief key industries, industry associations, conservation organizations and CBD 3.2.3.2. Media and policy seminars about offset models		X 	X X	X X
Sub-Outcome 3.3 Operational models and capacity to design, establish and implement PES for biodiversity in forest enterprises in S.& E. Africa, tropical America	Output 3.3.1 New PES activities in forest enterprises designed and implemented with project support	3.3.1.1 Candidate enterprises and PES options identified and evaluated 3.3.1.2 Development of PES enterprises	X X 	X X X	X X X	 X X
	Output 3.3.2 Cases documented, lessons synthesized and tool-kit developed on how to set-up and run PES in forest enterprises	3.3.2.1 Assess cases of enterprise implementation and outcomes 3.3.2.2 Compile and develop resource and best practice materials 3.3.2.3 Disseminate materials through Katoomba Group networks, Marketplace, partners, associations	 X 	X X 	X X X	 X

	Output 3.3.3 Pipeline developed for investment in PES in forest enterprises and strategy for support services	Identify forest enterprises interested in PES Pre-appraise potential for PES in enterprises Communicate results to potential investors	X X	X X X	X X X	X X X
Sub-Outcome 3.4 Develop assessment tools for coastal fishery and flood protection PES at landscape scale	Output 3.4.1 Develop analytical framework and tools to evaluate & design PES for coastal fishery and flood protection	3.4.1.1 Develop analytical framework for coastal fishery and flood protection PES 3.4.1.2 Develop assessment strategy and tools to determine viability and key design features for coastal PES	X X	 X		
	Output 3.4.2 Use framework and tools to evaluate the potential and design for two coastal PES projects	3.4.2.1 Select project partners in two coastal landscapes with global biodiversity values 3.4.2.2 Assess opportunities for PES in two landscapes (one for fishery and one flood protection)		X X	 X	

SECTION III. TOTAL BUDGET AND WORKPLAN

PART I. BUDGET

The budget details for this project may be found in **Table 9**. Of the total budget, around 30% each will be spent for the Ecosystem Marketplace and the Katoomba Group networks and associated work in policy analysis and buyer mobilization, and 40% for the development and institutionalization of the Forest Trends biodiversity PES models.

Of the funds through Forest Trends (excluding UNOPS), approximately 17% are for project staff, 42% for consultants, 10% for travel expenses, 9% for workshops, 5% for other direct costs, and 17% for indirect costs.

Forest Trends' direct expenses include all direct project expenses for salaries & benefits, consultants, travel, meetings and conferences, communications, publications, supplies, materials and other miscellaneous office expenses that vary directly with salary levels. Indirect expenses include general and administrative salaries, rent, depreciation on equipment and other miscellaneous expenses that fluctuate based on overall spending levels. The budget worksheets show the different categories included in direct expenses.

Program increment. The program of work proposed for this project is entirely incremental to the baseline program of Forest Trends and The Katoomba Group.

The Ecosystem Marketplace news, library, MarketWatch etc. current coverage of biodiversity PES and community-based PES is quite modest, as is the level and type of client outreach and engagement, which is almost entirely through a passive website. Given limitations of staff time, budget for reporting, analysis and communications, a significant upscaling of coverage of these markets would not be possible with existing resources. GEF funds will provide for additional staff and enable key editorial staff to focus their attention on these particular outcomes.

The other current activities of The Katoomba Group are limited to international network convenings, one or two pieces of analytical work each year, and occasional ad hoc advisory consultations with national policymakers. All of the funds that will be provided by GEF to this project will go to new activities in Eastern and Southern Africa and in Tropical America, and to new programs of work on buyer mobilization and national policy frameworks and tools.

The proposed GEF-supported activities on Operational Models for Biodiversity Payments involve entirely new initiatives on agri-environmental payments and costal PES, and a very significant expansion of initial exploratory work by Forest Trends on biodiversity offsets and PES in forest enterprises, in terms of the number of new pilots supported and the new establishment of learning networks and mechanisms to share and disseminate results of these activities.

Cost-effectiveness. This project has been designed explicitly to provide a cost-effective strategy for supporting institutional development of PES. The most important cost-saving, efficiency-increasing element is Forest Trends' engagement with the international Katoomba Group. The figures presented below on co-financing from the international KG members significantly understate their contribution, because both the time estimates and daily rates are very conservative. Many members—particularly those

from the private sector—are senior people who command very high salaries and would thus be inaccessible financially to many of the stakeholders of this project, and would otherwise have no mechanism to share their experience and knowledge.

The existence of the Katoomba Group is a sine qua non for the functioning of the Ecosystem Marketplace. Without this support, access to strategic information, and the members' individual networks, a global market information service would not be possible to operate because the costs would be astronomical. The Forest Trends staff and senior consultants serve as strategic 'nodes' in enabling this global network.

The structure of the learning groups for the regional Katoomba Group networks and Biodiversity Models also leverages high-quality technical input and efficient information exchange that would otherwise be unaffordable to most of this project's clients and stakeholders. Few other institutions are able to convene collaborative platforms that include conservation, community, corporate, research and government leaders. These platforms themselves contribute to cost-effectiveness and dramatic reductions in transaction costs.

Forest Trends itself operates with a small, highly experienced staff and low overhead, and achieves its impressive level of performance through strategic networking and leveraging action by large and influential organizations. National collaborators are encouraged and supported to take leadership in project activities, rather than outposting a large number of staff. Forest Trends is also set up to take full advantage of diverse new technologies that enable partners and networks to communicate regularly and effectively with reduced need for expensive face-to-face meetings. Most publications will be inexpensively produced electronically, rather than as 'hard' copies. Key elements of project monitoring are incorporated as part of ongoing program activities, thus reducing overall monitoring costs.

Table 10. Total Project Budget

1	Award ID: PIMS 3179							
	Project Title: Institutionalizing Payments for Ecosystem Services							
	GEF Outcome/Atlas Activity	Managing Party	Source of Funds	Amount (USD) Year 1	Amount (USD) Year 2	Amount (USD) Year 3	Amount (USD) Year 4	Total (USD) All Years
	OUTCOME 1:	Forest Trends	GEF	454,140	454,624	454,525	454,492	1,817,782
			Co-Financing	914,646	914,646	914,646	914,646	3,658,583
			sub-total	1,368,786	1,369,270	1,369,171	1,369,138	5,476,365
	OUTCOME 2:	Forest Trends	GEF	421,641	422,091	421,999	421,968	1,687,698
			Co-Financing	671,021	671,021	671,021	671,021	2,684,083
			sub-total	1,092,662	1,093,111	1,093,020	1,092,988	4,371,782
	SUB OUTCOME 3.1:	Forest Trends	GEF	148,023	148,181	148,149	148,138	592,491
			Co-Financing	364,771	364,771	364,771	364,771	1,459,083
			sub-total	512,794	512,952	512,920	512,909	2,051,574
	SUB OUTCOME 3.2:	Forest Trends	GEF	171,576	163,528	165,167	165,725	665,996
			Co-Financing	669,771	669,771	669,771	669,771	2,679,083
			sub-total	841,347	833,298	834,938	835,496	3,345,080
	SUB OUTCOME 3.3:	Forest Trends	GEF	170,695	170,877	170,840	170,827	683,240
			Co-Financing	315,708	315,708	315,708	315,708	1,262,833
			sub-total	486,404	486,586	486,548	486,536	1,946,074
	SUB OUTCOME 3.4:	Forest Trends	GEF	60,892	60,957	60,944	60,939	243,732
			Co-Financing	70,833	70,833	70,833	70,833	283,333
			sub-total	131,726	131,790	131,777	131,773	527,066
	TOTAL BUDGET	Forest Trends	GEF	1,326,969	1,320,258	1,321,624	1,322,089	5,690,939
			Co-Financing	3,006,750	3,006,750	3,006,750	3,006,750	12,027,000
			TOTAL	4,433,719	4,427,008	4,428,374	4,428,839	17,717,939

PART II. CO-FINANCING

Table 11 presents a status report on Cash Commitments for Co-Financing. The Ecosystem Marketplace (Outcome 1), and models for Agri-Environmental (Sub-Outcome 3.1) and Biodiversity Offsets (Sub-Outcome 3.2) have more than 3:1 co-financing confirmed, the Katoomba Group networks (Outcome 2) and the Business Development Facility (Sub-Outcome 3.3) have more than 1.5:1 and Coastal Payments (Sub-Outcome 3.4) has 1.2:1.

For Outcome 1, the **Ecosystem Marketplace**, some co-financiers will provide diverse types of support: general support for all project activities (Citigroup, Conservation International, DFID, IUCN, Profor, Swiss Re, Surdna, Goldman Sachs, GE, The Nature Conservancy and the U.S. Forest Service); the development of market information services for biodiversity markets (Moore, Packard Foundations, UK Forestry Commission and WWF); analysis of markets and report news to the Marketplace (Baker McKenzie, Environmental Finance and RECOFTC); the development of market services for communities (Citigroup, Sierra Gorda and ICRAF); technical input and content to Marketplace development (the EM Advisory Board, Ecotrust, Forest Trends Board, Fudacao Getulio Vargas Business School, the International KG Network and O Boticario Foundation). GEF contribution to the increment is $1.46 million.

For Outcome 2, the **Regional Katoomba Group networks**, co-financiers for the E.S. Africa network provide general support (IFAD, Profor) and technical support for network activities (BEA International, Biocarbon Fund, CSIR, Eastern Arc Mountains Conservation, Ecotrust-Uganda, Forest Trends Board, Kenyan Forestry Department, the International Katoomba Group, Kenya Resource Centre for Indigenous Knowledge, Leadership for Environment and Development of Malawi, PEMA, Resource-Africa, ICRAF and WWF-Tanzania). Co-financiers for the Tropical America network provide general support (Mitsubishi International), and technical input to network activities (the Fundacao Getulio Vargas, the International Katoomba Group, the Forest Trends Board, REBRAF, University of Sao Paolo, the Woods Hole Research Centre and the World Bank. Support for buyer mobilization is provided by the Moore Foundation, and for policy analysis from IDRC, Malawi's Dept of Environment, NEMA-Uganda and Uganda's National Forestry Authority.

For Sub-Outcome 3.1, **Agri-ecological payments**, the major co-financing for the Learning Networks will be provided by FAO, Moore Foundation, Agricultural University of Wageningen, CATIE, Defendersof Wildlife, ModelForests, PRISMA, ICRAF, The Nature Conservancy, and Ecoagriculture Partners. EP, FAO, PRISMA, ICRAF and TNC will also provide technical assistance to the pilots.

For the **Business and Biodiversity Offsets Project**, major co-financing for general support will come from Conservation International, USAID, Alcoa and Profor. The companies implementing the pilot biodiversity offsets (e.g., Gyelloba) will contribute co-financing. Others will provide technical input to the project (Forest Trends Board, Ministry of Ecology and CSIR-South Africa, NEMA-Uganda, SANBI and the BBOP Advisory Committee). O Botacario Foundation and the Moore Foundation will support BBOP meetings.

For the **Business Development Facility**, co-financing for development of the pipeline of forest enterprises will come from Citigroup, IFC, US Forest Service, while technical input will come from the BDF Advisory Committee, Forest Trends Board and the International Katoomba Group

Network. Companies involved in pilot enterprises (such as Global Forest Products and Precious Woods will contribute significant co-financing.

For **Coastal Protection Payments**, co-financing of the general program will come from the Packard Foundation, while technical inputs will be contributed by FAO, the International KG network and IUCN.

Forest Trends anticipates considerable leveraged cash and “in-kind” co-financing during the course of the project, from advisory group institutions, additional PES projects in the Forest Trends learning networks, additional institutional members of the Katoomba Group networks, private buyers and investors, and other donor organizations.

Table 11. Cash and In-Kind Commitments for Co-Financing

Outcome	Name of Cofinancier	Classification	Cash	In-Kind
Outcome 1	Baker McKenzie	Corporate		100,000
	Citigroup	Corporate	362,500	
	Conservation International	NGO	25,000	100,000
	DFID	Bilateral	300,000	
	Ecosystem Marketplace Advisory Board	Diverse		220,000
	Ecotrust	NGO		10,000
	Environmental Finance Magazine	Corporate		100,000
	Forest Trends Board	Diverse		66,667
	Fundacao Getulio Vargas Business School	NGO		100,000
	GE	Corporate	50,000	
	Goldman Sachs	Corporate	500,000	
	International Katoomba Group Network	Diverse		166,667
	IUCN	NGO	15,000	
	Moore Foundation	Foundation	110,750	
	O'Boticario Foundation	NGO		100,000
	Packard Foundation	Foundation	75,000	
	Profor	Multi-lateral	30,000	
	Recoftc	NGO		80,000
	Sierra Gorda	NGO		200,000
	Surdna	Foundation	150,000	
	Swiss Re	Corporate	225,000	
	The Nature Conservancy	NGO	25,000	
	UK Forestry Commission	Bilateral	85,000	
	US Forest Service	Bilateral	112,000	100,000
	World Agroforestry Centre	NGO		100,000
	World Wildlife Fund	NGO	50,000	100,000
Outcome 1 Total			2,115,250	1,543,333
Sub-Outcome 2.1	ABN Amro	Corporate	125,000	
	BEA International	NGO		20,000
	Biocarbon Fund	Multi-lateral		200,000
	Council for Scientific and Industrial Research	NGO		40,000
	Eastern Arc Mountains Conservation Endowment Fund	Government		20,000
	ECOTRUST-Uganda	NGO		40,000
	Forest Trends Board	Diverse		33,333
	Forestry Department-Kenya	Government		20,000
	IFAD	Multi-lateral	175,000	
	International Katoomba Group Network	Diverse		83,333

Outcome	Name of Cofinancier	Classification	Cash	In-Kind
	Kenya Resource Centre for Indigenous Knowledge	NGO		20,000
	Leadership for Environment and Development-Southern Africa	NGO		20,000
	Malawi Department of Environmental Affairs	Government		20,000
	Mitsubishi	Corporate	250,000	
	National Environment Ministry Authority-Uganda	Government		75,000
	National Forestry Authority-Uganda	Government		20,000
	Participatory Environment Management Program	NGO		20,000
	Profor	Multi-lateral	25,000	
	Resource Africa	NGO		20,000
	World Agroforestry Centre	NGO		200,000
	World Wildlife Fund-Tanzania	NGO		30,000
Sub-Outcome 2.1 Total			575,000	881,667
Sub-Outcome 2.2	Forest Trends Board	Diverse		33,333
	Fundacao Getulio Vargas Business School	NGO		30,000
	GE	Corporate	50,000	
	IDRC	Bilateral	50,000	
	International Katoomba Group Network	Diverse		83,333
	Moore Foundation	Foundation	110,750	
	REBRAF	NGO		20,000
	University of Sao Paolo	NGO		100,000
	Woods Hole Research Centre	NGO		500,000
	World Bank	Multi-lateral		250,000
Sub-Outcome 2.2 Total			210,750	1,016,667
Sub-Outcome 3.1	Agricultural University of Wageningen	NGO		40,000
	CATIE Silvopastoral project	NGO		200,000
	Defenders of Wildlife	NGO		50,000
	Ecoagriculture Partners	NGO		200,000
	FAO	Multi-lateral		300,000
	Forest Trends Board	Diverse		16,667
	Inter-American Institute for Cooperation in Agriculture	Multi-lateral		100,000
	International Katoomba Group Network	Diverse		41,667
	Model Forests	NGO		40,000
	Moore Foundation	Foundation	110,750	
	PRISMA	NGO		100,000

Outcome	Name of Cofinancier	Classification	Cash	In-Kind
	The Nature Conservancy	NGO		60,000
	World Agroforestry Centre	NGO		200,000
Sub-Outcome 3.1 Total			110,750	1,348,333
Sub-Outcome 3.2	ALCOA	Corporate	200,000	
	BBOP Advisory Committee	Diverse		800,000
	Conservation International	NGO		400,000
	Forest Trends Board	Diverse		16,667
	Gyelloba	NGO		200,000
	International Katoomba Group Network	Diverse		41,667
	Ministry of Ecology and Sustainable Development-France	Government		40,000
	Moore Foundation	Foundation	110,750	
	National Environment Ministry Authority-Uganda	Government		25,000
	O'Boticario Foundation	NGO		75,000
	Profor	Multi-lateral	30,000	
	South African National Biodiversity Institute	NGO		100,000
	USAID	Bilateral	640,000	
Sub-Outcome 3.2 Total			980,750	1,698,333
Sub-Outcome 3.3	BDF Advisory Committee	Diverse		200,000
	Citigroup	Corporate	362,500	
	Forest Trends Board	Diverse		16,667
	Global Forest Products	Corporate		180,000
	IFC	Multi-lateral		100,000
	International Katoomba Group Network	Diverse		41,667
	Precious Woods	Corporate		250,000
	US Forest Service	Bilateral	112,000	
Sub-Outcome 3.3 Total			474,500	788,333
Sub-Outcome 3.4	FAO	Multi-lateral		100,000
	Forest Trends Board	Diverse		16,667
	International Katoomba Group Network	Diverse		41,667
	IUCN	NGO		50,000
	Packard Foundation	Foundation	75,000	
Sub-Outcome 3.4 Total			75,000	208,333
Grand Total			4,542,000	7,485,000

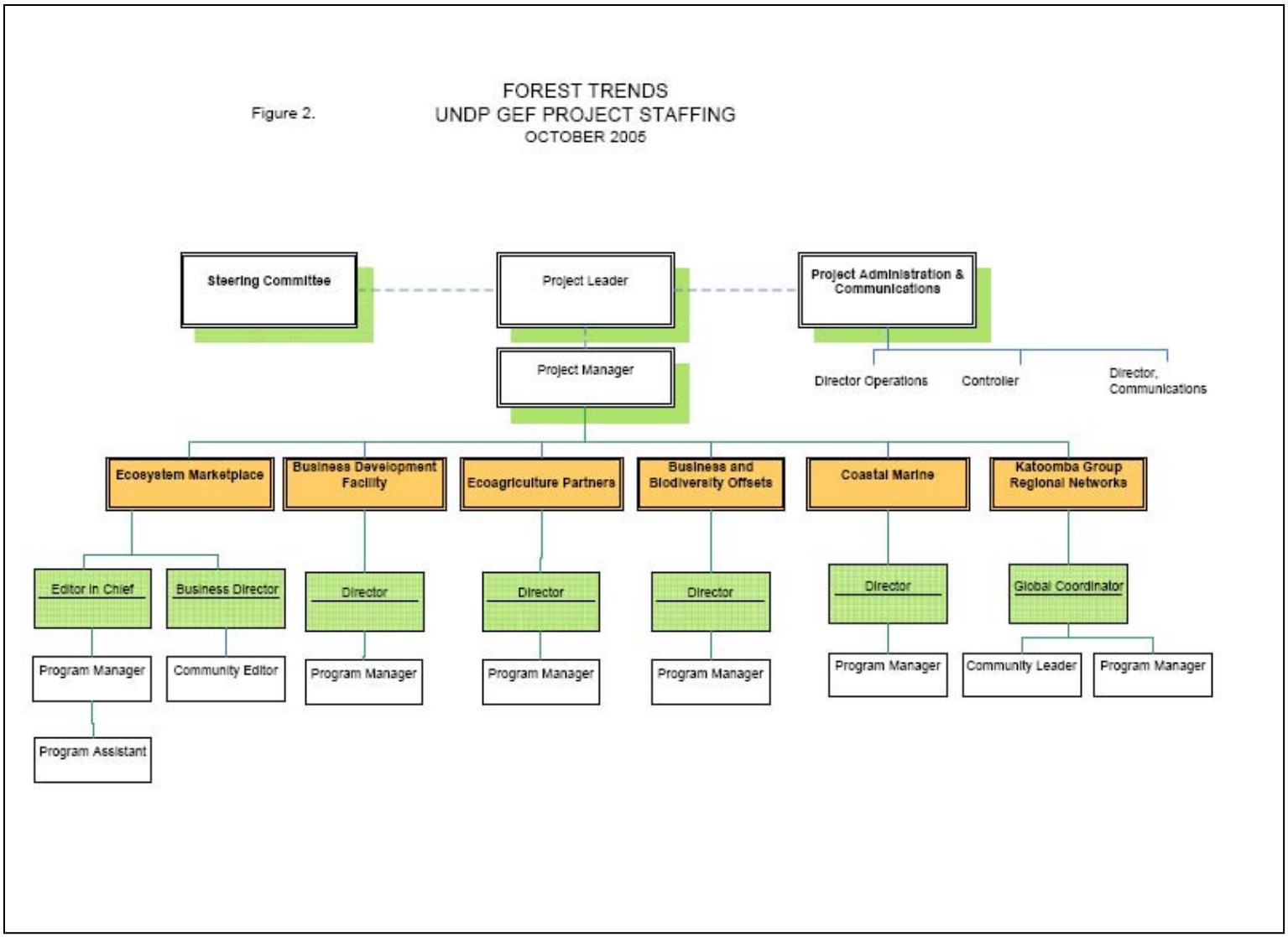
SECTION IV: Additional Information

PART I: OTHER AGREEMENTS

[to be completed after GEF review]

PART II: ORGANIGRAM OF PROJECT

Figure 3: Organigram of Project



PART III: TERMS OF REFERENCES FOR KEY PROJECT STAFF AND MAIN SUB-CONTRACTORS

[to be completed after GEF review]

PART IV: STAKEHOLDER INVOLVEMENT PLAN

The motivation for development of this project, and the setting of its priorities, emerged from the ground up—from the leading innovators in PES around the world who have been involved for the last six years in the international Katoomba Group. The specific components and design elements of the project emerged from intensive and systematic face-to-face, phone and e-mail consultations with key stakeholder groups globally (with existing and potential buyers of conservation services, international conservation community, financiers) and regionally (with buyers, sellers, policymakers and project developers). Detailed information about these consultation processes may be found in the Supplemental Reports to the Prodoc.

Buyers

Ecosystem Marketplace. Potential financial investors will use the Marketplace to connect with potential sellers and find guidance on establishing PES contracts or arrangements. Buyer groups will also gain access to information on market prices, trends, or factors influencing these, as well as information on regulations, national biodiversity priorities, etc. The Ecosystem Marketplace will engage buyers through user-feedback surveys and interviews. Marketplace staff will regularly monitor the frequency of which sellers access the Marketplace as well as the usefulness of available information for this group.

Katoomba Group Networks in E and S Africa and Tropical America. Potential investors and buyers of ecosystem services will be directly involved as members of the E. and S. Africa and Tropical America Katoomba Group Networks. Annual workshops designed as real-life "marketplaces" will bring buyers together with sellers and service providers to negotiate and structure deals. Selected projects will have access to a Rapid Response team of technical experts, including those with financial and business management expertise, to help them address specific issues in structuring institutional mechanisms to engage buyers in PES..

Biodiversity Models. Buyers are directly engaged in the Learning Networks in two ways. The first is directly as implementers of new business models, whether they be biodiversity offsets, forest enterprise models, etc. The second is as part of a wider network of organizations interested in gaining access to the experiences and lessons generated in these networks. In this case, buyers will gain access to materials and analyses generated from the project through the Marketplace and other platforms, such as Katoomba Group meetings and intergovernmental conventions.

Sellers

Ecosystem Marketplace. Potential suppliers and sellers of ecosystem services will use the Marketplace to find out about PES opportunities, link to potential buyers, and learn about PES experiences in other countries. Sellers from rural communities and small businesses will be able to access information that would otherwise be unavailable to them. The Ecosystem Marketplace will engage potential sellers through user-feedback surveys and interviews. Marketplace staff will regularly monitor the frequency of which sellers access the Marketplace as well as the usefulness of available information for this group.

Katoomba Group Networks in E and S Africa and Latin America. Sellers and suppliers of ecosystem services will be directly involved as members of the E. and S. Africa and Latin America Katoomba Group Networks. Annual workshops designed as real-life "marketplaces" will bring sellers together with buyers

and service providers to negotiate and structure deals. They will also have access to a Rapid Response team of technical experts.

Learning Networks. Sellers of ecosystem services will participate directly in the Learning Networks by interacting in transactions with buyers. Potential future sellers can access materials from the Learning Networks through the Ecosystem Marketplace and other platforms.

Policymakers and regulators

Ecosystem Marketplace. Policymakers and regulators will use the Marketplace to learn about global experiences designing legislation and regulations which support PES and access strategic analyses which will help them determine where, when and in what forms PES is appropriate (in relation to national or sub-national strategic priorities for conservation and development) and therefore help them establish appropriate national legislative and regulatory frameworks. The Ecosystem Marketplace will engage policymakers through user-feedback surveys and interviews. Marketplace staff will also host Socratic dialogues and policy debates online through "Katoomba Dialogues" in which policymakers will be directly involved.

Katoomba Group Networks in E and S Africa and Latin America. Policymakers and regulators will be directly involved as members of the E and S. Africa and Tropical America Katoomba Group Networks. They will have access to regional experience through interactive annual meetings as well as an Eastern and Southern Africa web portal of information on developments in Africa. Both global and regional policymakers will have access to regular network news, reports and guidance.

Biodivesity Models. The management teams of the Learning Networks will target policymakers and regulators with the lessons learned from their respective business models to influence future legislation. Policymakers will participate in regular Learning Network meetings and will receive policy briefs and other materials targeted at this audience.

Service providers and project developers

Ecosystem Marketplace. Service providers and project developers will use the Marketplace to obtain detailed, practical information about planning, designing, implementing, and monitoring PES projects, as well as evolving national legislative and regulatory frameworks. Through the Marketplace, this group will also gain access to expert experience and advice on design and implementation of PES projects. The Ecosystem Marketplace will engage service providers and project developers through user-feedback surveys and interviews. Marketplace staff will regularly monitor the frequency of which service providers and project developers access the Marketplace as well as the usefulness of site information for this group. Service providers will also be able to advertise their services and project developers can use the Marketplace as a platform to disseminate project reports and other materials.

Katoomba Group Networks in E and S Africa and Latin America. Service providers and project developers will be directly involved as members of the E. and S. Africa and Tropical America Katoomba Group Networks. Annual workshops designed as real-life "marketplaces" will bring these actors together with buyers and sellers to plan and structure PES deals. These actors will also have access to an Eastern and Southern Africa web portal to gain information about project developments across the region.

Biodiversity Models. Service providers and project developers will be involved directly in the planning, design, and implementation of new business models. They will provide technical, scientific, legal, financial, and business management expertise to the Learning Network projects.

PART V: RESPONSE TO UNDP-GEF REVIEWS

Forest Trends have responded to all of the comments and recommendations made in the STAP review of November 15, 2005.

STAP Recommendations to:	Page #	Response
Address equity issues explicitly	134-136, 137-140	Expanded reference to equity issues in Annex on Community Face of Marketplace, community-related activities of Katoomba Groups
Address full set of ecosystem services and not just specific commodities	16-17, 37	This challenge has been specified among the policy challenges in the prodoc
Address the sustainability of the individual PES projects in the learning networks	48	This point has been added to the section on Risks in the text about our role in relation to individual PES projects
Address linkages with Climate Change, Land Degradation and International waters	26	Text has been added to clarify the strong relationship of project activities with Climate Change and Land Degradation, and potential contributions to International Waters
Clarify existing strength of institutional linkages in the networks	55	The section on institutional partnerships indicates those with whom Forest Trends and Katoomba Group had strong relationships developed prior to the pdf-B
Provide more detail on mechanisms for stakeholder involvement	99-100	Text provided in section on stakeholder involvement
Ensure implementation of knowledge-sharing activities	137-139,147-151, 152-155, 156-160, 161-163	Additional clarifying text in Annexes on regional Katoomba Groups and learning networks for the four biodiversity payment models
Consider whether targets are over-ambitious	Table 8	Targets identified in Logframe were reviewed and minor changes made to set slightly less ambitious targets for the Katoomba Group project impacts and number of projects supported by model learning networks
Reflect management challenges of this complex project as one of the project risks.	48	These risks are explicitly noted and discussed now in the section on project risks

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ANNEX 1. PRICELESS, NOT WORTHLESS: CURRENT AND FUTURE VALUE OF MARKETS AND PAYMENT SCHEMES FOR ECOSYSTEM SERVICES

Types of PES

At the Ecosystem Marketplace Forest Trends have been monitoring the trend in development of PES and trying to establish what its impact will/can be on the conservation of biological diversity in both developed and developed countries. Understanding the scale and potential scope of this approach, however, requires understanding that this trend, at its core, takes two distinct, although related, forms. The first of these comes in the form of specific transactions whereby the users of an ecosystem service pay those most responsible for providing or maintaining this services (e.g. water users downstream paying for the protection of watersheds upstream). These "one-off" deals are still few (relatively) and far between and they don't yet constitute a true "market" for ecosystem services. Additionally, by their very nature they are fractured and dispersed, so getting a sense of the number and volume of these transactions is difficult. However, for a variety of reasons enumerated by Bayon (2004) and others, these one-off deals are the most likely to have an impact in developing countries and they bring with them numerous lessons on how to internalize environmental externalities. They may, even, in the long term, serve as a basis for (or spur the creation of) full-fledged markets in environmental services.

The other trend, which is also having an impact worldwide, is the creation of true markets related to ecosystem services. Of these large and true markets (where buyers and sellers get together on a regular basis, the largest and perhaps most influential is the European Emissions Trading Scheme (EU-ETS), whereby European companies are being forced by their governments to limit emissions in greenhouse gases (GHGs). This market, which began operating in January of 2005, has already transacted hundreds of millions of dollars-worth of carbon credits and observers have estimated that it could one day be worth tens of billions of dollars, becoming, some say, one of the world's largest commodity markets. However, these large and liquid markets are most likely to be created (at least in the first instance) in developed countries, where the laws, rules, regulations, and institutions exist to facilitate the use of these markets.

Nevertheless, these large markets also have scope to influence environmental decisions and conservation in developing countries, as can be witnessed by the fact that carbon reduction projects in countries such as China, India, Brazil, Mexico, and Africa are already being sold into the global carbon markets in Europe and elsewhere.

In short, although these two trends seem to be, at first glance, quite distinct, they are, in reality, part of the same overall attempt to internalize the value of ecosystem services into the global economic system. In a way, it may be useful to think of these two examples (i.e. one-off payment for ecosystem services and markets for pollution) as part of a continuum that runs from, at one extreme, large and liquid markets related to specific ecosystem services, all the way to smaller, more discrete transactions and payments for ecosystem services. What both have in common is that they are mechanisms for putting a real economic value on the services Forest Trends obtain from nature.

The Katoomba Group Matrix of Ecosystem Service Payments and Markets

To better understand what impact these markets and payment schemes might have around the world, and in developing countries in particular, it is first necessary to categorize, classify, and determine the relative sizes of each of these markets and payment schemes. Using a variety of industry sources, as well as based on conversations with dozens of market players, the Ecosystem Marketplace has attempted to undertake

this task in the attached matrix (Supplemental Report 1). It includes not only the various types of markets Forest Trends see emerging, but also their size, their estimated potential size, as well as their potential impact on the environment and the various players involved in each market. This is an attempt not only to conduct a strategic assessment of the various audiences for the Ecosystem Marketplace, but also to better understand who the relevant players are in each of these markets and payment schemes. Table 12 presents a summary of Matrix data on diverse markets globally and in developing countries. .This is by no means a complete assessment, and it is Forest Trends intention to modify the matrix based on discussions with experts and practitioners from around the world.

Still, Forest Trends believe the matrix provides some valuable information related to the scope, the depth, breadth, and potential impact of these markets. For instance, along the top line of the matrix, you will find a series of classifications of the various types of markets and payment schemes. These range from compliance-driven cap-and-trade markets all the way to voluntary private payments for ecosystem services. Below this Forest Trends have a list of 19 markets (or market sub-sections, e.g. regulated forestry carbon markets) that Forest Trends consider the most important currently taking place. Although these can be arranged according to market type, market-size, or any other such criteria, Forest Trends have chosen to arrange them in terms of those markets that Forest Trends consider most relevant to the work of the Ecosystem Marketplace, either because they are underserved in terms of information, or because Forest Trends believe they have the greatest potential, or because of their direct impact on conservation and the internalization of environmental externalities. Below each of these markets Forest Trends have included estimates about the current size of the market, the potential size of the market in the mid-term, as well as the long-term, and the estimated impact of the market on the environment and on conservation more specifically. Below these, Forest Trends have included lists of the most relevant market participants, categorized in terms of Buyers, Sellers, Market Shapers, and Market service providers. Last, but not least, based on all this information, Forest Trends have included a suggested level of coverage for each market by the Ecosystem Marketplace.

Promising Biodiversity Conservation Payment Schemes

Based on this matrix, Forest Trends can arrive at some very interesting preliminary conclusions: First, Forest Trends believe that the wetland mitigation banking and conservation banking markets in the US are large, underserved in terms of information, and poised for rapid growth. Forest Trends have also determined that these two markets have large potential impacts on the environment and that they also have tremendous potential for application outside the US, particularly in developed countries (indeed it now appears that Australia and possibly Europe are looking at the US mitigation banking market as a model for future biodiversity markets). Since the market is based on strong regulatory enforcement, as well as on high property values, however, Forest Trends do not see markets such as these forming in developing countries in the mid-term. For developing countries, Forest Trends believe the real potential lies in the use of voluntary conservation payments and biodiversity offsets; either from private companies or mediated via local governments. This is the sort of work Forest Trends are exploring through the Business and Biodiversity Offsets Pilot Programme (BBOP, see relevant section).

However, many of the types of questions that BBOP and others working on biodiversity offsets in developing countries are likely to face –questions like: How do you determine what kind of offset is needed for what kind of biodiversity damage?; Do you allow biodiversity offsets to take the form of off-site and out-of-kind offsets?; Who monitors and who regulates these offsets?—are precisely the same sorts of questions being faced by the existing wetland mitigation and conservation banking markets in the US. For this reason, Forest Trends believe that this market deserves priority attention from the Ecosystem Marketplace, that there are lessons to be learned, and that these lessons can have a significant impact, not only in developing countries, but on biodiversity conservation worldwide. Currently Forest Trends

believe the US wetland mitigation market transacts about US$1 billion dollars a year, while the US conservation banking market is around US$ 45 million. Voluntary biodiversity offsets (mostly in developing countries), on the other hand, amount to around US$20 million dollars currently. In the future, however, by 2050, Forest Trends believe the wetland mitigation and conservation banking markets (including outside the US although mostly in developed countries), is poised to grow significantly, possibly amounting to some US$3.5billion in combined trading each year. Voluntary biodiversity offsets in developing countries, by contrast, will, Forest Trends think amount to some US$150 million per year. Although this figure is much smaller than the figure for mitigation banking in the US and elsewhere in the developed world, it might mask a tremendous impact on global biodiversity considering that most of the world's biodiversity is found in the developing world and given the relative costs of doing businesses in these countries.

Beyond biodiversity banking and offsets, Forest Trends have determined that both the voluntary carbon markets, and the regulated carbon forestry markets (known, in Kyoto parlance, as land use, land use change, and forestry, or LULUCF), are underserved markets of great potential interest to the EM and to biodiversity conservation worldwide. Currently there are no reliable public estimates on the size of the voluntary carbon market worldwide, although Forest Trends estimate that it is around US$75 million per year (note: add the columns for non-compliant carbon trading and voluntary carbon forestry). Here Forest Trends should point out that this figure, in particular, is changing rapidly as large corporations such as HSBC begin buying credits on the voluntary markets. Nevertheless, this compares with the regulatory-driven carbon market, which is likely to be worth more than US$1 billion by the end of 2005. However, most of the transactions on the regulated carbon markets have to do with emissions reductions in developed countries, or with energy (or exotic gas, i.e. HFC) emissions reductions in developing countries. As such, its direct impact on biodiversity conservation (i.e. not counting the indirect impact that climate change might have on biodiversity) is considerably less than could be guessed from the transaction figures. For this reason, Forest Trends believe it is important to focus on two components of this larger market: the voluntary and compliance-driven investments in forestry carbon. These markets are essentially paying for carbon that is sequestered through LULUCF projects, projects that Forest Trends believe can have some direct biodiversity benefits on the ground. These markets (both voluntary and regulated) taken together amount to some US$115 million, and Forest Trends believe that, if managed correctly, can have considerable benefits for biodiversity in developing countries.

In particular, Forest Trends believe that the voluntary carbon markets are likely to have a growing impact on biodiversity conservation in developing countries, simply because they often involve less onerous registration and certification procedures –as well as less transaction costs—than do the regulated carbon markets. Likewise, Forest Trends believe that depending on how the voluntary and regulated carbon markets address the problem of avoided deforestation (which is not included in the market currently), this could have considerable impact on biodiversity worldwide.

The next market Forest Trends believe could have impacts on biodiversity (mostly, Forest Trends should add, in developed countries), is the market for conservation easements. Currently, this is a large and thriving market in the US, transacting several billion dollars a year. However, it is a model that could be used elsewhere in the developed world and, if it is, it could begin to have a tremendous impact on biodiversity conservation in these countries. Forest Trends do not believe easements will be all that relevant to developing countries in the short term (at least not in the "least developed countries") simply because they require strong and well-established legal frameworks protecting not only property rights, but also restrictions on the right to development. Most developing countries, however, do not have such systems.

Finally, Forest Trends believe that cap-and-trade markets for pollution as it relates to water (i.e. water nutrient trading systems) hold tremendous potential in both the developed and developing worlds. These

systems, which essentially set caps on emissions into watersheds are beginning to show promise in the US, where some have been in place for nearly two decades. Additionally, nutrient trading markets hold the promise of impacting coastal and marine biodiversity since, ultimately, the pollutants that they are intended to control end up in the world's oceans.

To summarize: markets and payment schemes for environmental services are a large and growing response to global environmental problems, one whose impact goes far beyond generating new sources of revenue for conservation. They are tools for internalizing the intrinsic value of the environment into economic thinking; for ensuring that nature's many services are recognized for what they are: priceless, not worthless.

These tools have a variety of applications: in some places large, multi-faceted environmental markets may be viable; in others they will take the form of one-off transactions effecting payments for ecosystem services. For these markets and payment schemes to work, they require information; information that the Ecosystem Marketplace will provide. Additionally, there is a need to share experiences and case studies of what sorts of markets and payment schemes work under what sorts of conditions. The Ecosystem Marketplace will undertake to provide this sort of relevant information (see section on Marketplace strategic plan). There is also a need to better understand and analyze the entire range of market-based and market-like mechanisms that will enable us to internalize environmental externalities. This will involve looking at the whole range of markets and payments schemes, determining their size, and making decisions on which approaches have the most promise, not only in the developed world, but also in developing countries.

Table 12: Estimated Size of Ecosystem Service Markets

ECOSYSTEM MARKET	**ESTIMATED CURRENT SIZE OF MARKET GLOBALLY** *($ per annum)*	**ESTIMATED CURRENT SIZE OF MARKET IN DEVELOPING COUNTRIES** *($ per annum)*
REGULATORY-DRIVEN ECOSYSTEM OFFSETS (including US Wetland Mitigation Banking)	**$200 million** (just private, for profit wetland and stream); **$1,000 million total** (including in-lieu fee etc.)	Unknown how many ecosystem offsets are driven by EIA regulation in developing countries
REGULATORY-DRIVEN SPECIES OFFSETS (including US Conservation Banking)	**$45 million** in the US; Program just begun in Australia and possibly similar program in France, size unknown	Unknown how many species offsets are driven by EIA regulation in developing countries
REGULATORY-DRIVEN CARBON FORESTRY (e.g. Kyoto, LULUCF)	$100 million	Majority of investment in developing countries
VOLUNTARY CARBON FORESTRY	$15 million	Probably 80% in developing countries

LAND TRUSTS, CONSERVATION EASEMENTS (and expenditures by NGOs for conservation)	$6,000 million in US alone	Size and use of easements in developing countries unknown. Roughly $2 Billion/yr (McKinsey-WRI-TNC)
WATER QUALITY TRADING (Nutrient/Salinity trading)	$7 million	Size and volume in developing countries unknown; probably around $2 million
VOLUNTARY BIODIVERSITY OFFSETS	$20 million for just offsets	probably some 50% of this is in developing countries
GOVERNMENT CONSERVATION PAYMENTS AND BIODIVERSITY OFFSETS	**$3,000 million** - just flora and fauna oriented programs (not including water and soil conservation)	One study indicates that current global expenditures on protected areas amount to approximately $6.5 billion per year(this is government mediated) but the amount required to fully support conservation objectives would cost an estimated $45 billion per year (Balmford 2002). This shortfall is exacerbated when considering the stark ratio of conservation investment in developed and developing nations. Of the estimated $6.5 billion per year spent on managing protected areas, less than 12 percent is spent in developing countries – where biodiversity is typically greatest (Balmford 2003).In developing countries government involvement may be through state electricity, water, road agencies Costa Rica: over $14 Million
GOVERNMENT-MEDIATED PAYMENTS FOR WATER-RELATED ECOSYSTEM SERVICES	**$1,000 million** (New York City **~$150 million**, WRP **$240 million**, EQUIP estimate 50% for water-related ~**$500 million**)	Mexico program: **$15 million**; Costa Rica program: **$5 million**; China program: **$1+ billion**
PRIVATE WATERSHED MANAGEMENT PES	**$5 million** (many public PES are partially public)	Costa Rica ~30% private funds by electric, also Ecuador, public utility revenues
CERTIFIED PRODUCTS: Timber and NTFPs	Just Forest Stewardship Council estimated at **$5,000 million**	$120 Billion
RECREATION (Hunting, Ecotourism, etc.)	Information unavailable Worldwide Ecotourism is about	Information unavailable

	$300 Million/year	
WATER TRADING	**$100 million** for environment, **$2,000 million** overall (Western US, **$500,000,000** million Murray-Darling Australia) - extremely rough estimates	Examples in Chile, Mexico
BIOPROSPECTING	$17.5 Billion	Most in developing countries
COMPLIANT CARBON TRADING	**$1,000 million** (just for project-based reductions; trading of allowances could be as much as Forest Trends times this size)	Probably close to 80% of this is in developing countries
VOLUNTARY (i.e. NON-COMPLIANT) CARBON TRADING	$60 million	Some 50% of this is spent in developing countries
RENEWABLE ENERGY TRADING	$155-185 million	NA
TRADABLE LAND DEVELOPMENT RIGHTS	Information unavailable	Only a few pilot cases (e.g., Brazil)
INDIVIDUAL TRANSFERABLE QUOTAS (fisheries)	New Zealand, US	Information unavailable

***Source:** Ecosystem Markets Matrix, Version 14. Based on expert consultation and some market monitoring.

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ANNEX 2A. BARRIERS TO PES BY STAKEHOLDER GROUP

Private Sector Buyers

Consultations with potential or actual buyers of ecosystem services report a number of major barriers preventing their participating or expanding their activities:

1. Business leaders are unaware of the role and value of ecosystem services to their business

In many cases, business leaders are unaware of the benefits of ecosystem services to their business, or are unaware that improved conservation management of the underlying resources would make a difference to the delivery of those benefits.

2. Business leaders are unclear about the financial benefits of ecosystem payments

Even when companies recognize the importance of healthy ecosystems to their business, they typically do not have good evidence on the financial benefit of the ecosystem service to the company, nor the expected financial benefits that would come from having a "deal" for ecosystem service management. Evidence on the ecosystem services themselves is inadequate, as is information on how different management practices affect the service. Companies can often identify other types of financial investments with more reliable returns.

3. Private sector buyers often require institutions for aggregation of activities which do not exist

In the case of ecosystem services from resources that have multiple beneficiaries, if one company organizes a deal with landowners to protect that service, there is often no way they can exclude competitors from sharing in the benefits. In other cases, to actually achieve ecosystem service benefits will require effort over a larger area than a single company can afford to finance; unless multiple companies get involved, the marginal investment by the first company will have little payoff. In all these cases, some mechanism is needed to aggregate efforts from a number of buyers. This has typically been done by government entities, who charge a "user's fee" from the companies and transfer the funds to the landowners. This solution is not always appreciated by companies, because they lose control over quality assurance, because voluntary initiatives are transformed into mandatory ones, or because certain types of potential benefits (e.g. to reputation or morale) are lost in multi-actor solutions. Other options, such as coordination and aggregation by one of the companies on behalf of all, or by a non-profit conservation organizations, have been little tested and would probably require some policy framework to address contract issues, equity, etc.

4. Lack of internal capacity to plan and manage PES

Many businesses achieve their efficiency and profitability by focusing on core business activities. Becoming engaged in PES in effect creates an additional business activity for the company, one for which they may not have any internal technical or business capacity.

5. Lack of clear and publicly-endorsed mechanisms

In the case of private PES deals, individual companies may be reluctant to expose their company to reputation risks associated with making payments for ecosystem services. There may be public resistance to the idea of paying for ecosystem services, or to a particular form (e.g., offsetting ecological damage).

There may not be existing protocols for multi-stakeholder consultation, addressing equity issues, for monitoring compliance, etc.

Sellers—medium- to large-sized commercial enterprises

At the enterprise level, PES offer an opportunity for portfolio diversification, bringing in new revenue streams that complement products (see Figure A1.) A major potential group of sellers of ecosystem services are forest owners, because of the multiple ecosystem benefits of standing natural forest. While there has been experimentation in many settings with the sale of ecosystem services from commercial forest holdings, most businesses are poorly positioned to engage in them. Forest Trends has consulted widely with forest enterprise owners and managers, and in-depth with Forest Trends diverse cases, and found that they perceive the following barriers (Salvesen and Tepper 2005):

1. Forest owners are unable to assess real market opportunities

Because these markets are new and unfamiliar, enterprise owners do not have the internal capacity to undertake market analysis,

2. Forest owners require convincing business models

Enterprise owners have difficulty assessing how new PES enterprises would fit into their business plan, what cost structures and revenue flows would likely be, and anticipated rates of profit under different scenarios. Thus they perceive not only the risks of engaging in a new business, but high uncertainty as to what such a business would look like, and few if any models to learn from.

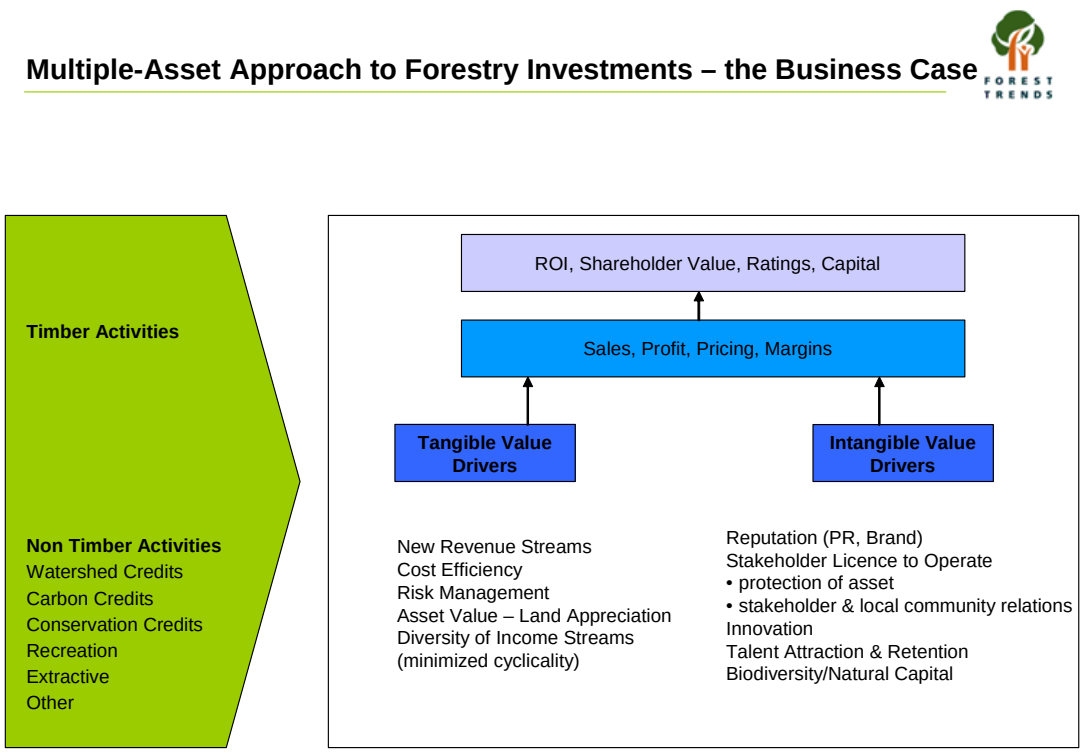
3. Forest owners require technical assistance that is currently unavailable

The outside business, financial and technical consultants who generally provide specialized input needed by medium-sized enterprises generally have no capacity to provide these services in relation to PES enterprises.

4. High transaction costs

Many of the existing PES systems involving either public payments or cap-and-trade have many rules and regulations for eligibility, application, compliance, etc.—most notably carbon offset projects. The learning costs to understand the rules, and the time required to comply, are especially onerous for medium-sized businesses.

Figure 4. Multiple-Asset Approach to Forest Investments – the Business Case



Sellers—Low-income or small-scale community producers

One of the exciting opportunities of PES is for this source of financing to supplement income in low-income, resource-dependent communities (organized communities, or groups of smallholders), or even to finance their transition to more profitable and sustainable production and livelihood systems. At this time, however, there are very significant barriers to their participation in PES, in addition to those described above for medium-sized private commercial enterprises, as gleaned from Forest Trends extensive interviews with community-based groups and technical assistance programs working with them (Bracer 2005):

Difficulties in learning that relevant PES programs exist

Communities lack knowledge about both national and international PES, and lack means to access information (phone, internet, contacts). NGOs that provide technical assistance to local communities are also typically unaware.

Difficulties in organizing their own participation in PES

Communities lack the financial means needed to cover start-up costs or for undertaking the local organization needed to plan for and implement PES. They lack organizational capacity to negotiate or organize PES participation, and lack the business savvy needed. They often face conflict within the

communities regarding the desirability of participating, which may be a constraint for collectively-owned or managed resources (or where coordination is required, as in developing biodiversity corridors or watershed protection). Dealing with heterogeneous and fragmented landscapes makes it difficult to plan for ecosystem service management.

Communities are usually excluded from key decisions on enterprise design

Communities are often too unfamiliar with the PES process to suggest design elements that would better match their own interests. They are often unaware of the financial value of their own resources to potential buyers. Moreover, regulatory frameworks are often unclear or inadequate, or make little provision for community input to design.

Communities have difficulty in protecting own interests in negotiating PES

Communities may be inexperienced with or uncomfortably in drawing up contracts regarding land and resource management, particularly over longer periods of time. Developing such contracts may be inconsistent with local culture or economic norms. Conflicts may arise between communities and the NGOs working with them, in terms of trusting them to represent their interests. Unclear tenure rights may generate difficulties or even conflicts in determining fair agreements. Ecosystem services sought by buyers may require land and resource management practices that actually diminish other ecosystem services provided by the resources that are important for the community, or for particular groups within them. Inadequate access to business services (market information, contacts, legal and accounting services) puts communities at a business disadvantage with buyers and intermediaries.

Communities have difficulty in gathering information from other communities experienced in PES

Communities are unfamiliar with different models for PES agreements that would be most suitable for their social and economic situations. They do not know where or how to find other communities with experience in PES, and in cases where they do learn about such communities, find it difficult to contact them.

Communities are largely excluded from involvement in policy process of developing PES rules

A fundamental barrier for community participation as sellers in ecosystem service markets is that community needs, concerns and safeguards are rarely considered during the process of developing the "rules of the game." Thus, processes, eligibility criteria, contract terms, monitoring methods, financing structures, etc. are often set up in ways that make it impossible or overly onerous or risky for communities to participate

Of these, the overarching barriers to be addressed include education and knowledge of PES, leadership and organizational/negotiation capacities, infrastructure for communications, and targeted support relationships. Many of these barriers could be overcome through pro-active efforts to enable community participation in PES (with many positive co-benefits for communities) but such efforts are uncommon.

Investors

Private investors and financial institutions consider investment in PES markets in much the same way they do any other business or market, balancing anticipated rates of return against risk. Broad consultation with investors, including banks, venture capitalists, insurance companies and others identified the following key barriers limiting the flow of financial capital into PES markets:

Investors rely on analysis of financial performance which are unavailable for PES

Because market information on PES is so disperse, difficult to obtain and so much is inadequately documented, investors cannot make rational determinations of likely returns or assess the factors that would influence returns. Cost of obtaining market information is high.

Investors do not understand how these markets work

Investors typically invest in industries that they understand well enough to make reasonable judgements about what factors will increase or reduce their risk or performance trends. In the case of PES, most investors do not know or understand the shape, size, direction and factors driving these, and thus prefer to make other investments they do understand.

Investors perceive high regulatory and policy risks

Most public payment systems and cap-and-trade markets are in the process of institutional development, and the "rules of the game" are either unclear or undergoing changes. The carbon markets suffer particularly from lack of clarity on the rules. Private payments are sometimes being made in the context of a complete lack of policy or regulatory framework, posing risks that decisions will later be taken that will sharply affect profitability.

Investors must rely on financial intermediary services that are difficult to secure

Most potential investors in ecosystem service markets are used to working in sectors with well-developed intermediation. Lack of intermediation increases investment costs.

Investors perceive uncertain price trends or price formation process

Because most ecosystem service payment and market systems are quite new, with few buyers and few sellers, it is very difficult to estimate the level of prices that will emerge once the market expands.

Support providers and project developers

Business and technical support providers and project developers play a critical role in PES, by supporting buyers and sellers to organize and implement agreements and long-term management. , technical providers and project developers need to have both a broad understanding of market opportunities and quite specific knowledge of key technical and business components of the deal. The principal barriers they face in getting into project development for PES include:
Potential intermediaries are unaware of market opportunities.
Intermediaries do not have access to practical models for structuring deals and contracts.
Intermediaries do not have training and capacity-building opportunities required to support dynamic field operations.

Policymakers and regulators

It is the responsibility of policymakers and regulators to provide a supportive framework for PES markets. Even for private deals, policies need to establish rights to buy and sell ecosystem services, and establish safeguards needed for buyers, sellers and investors. For public payments and cap-and-trade systems, they are responsible for developing the "rules of the game." At its meeting in Locarno, Switzerland in 2003, The Katoomba Group concluded that lack of policy frameworks was one of the two

most critical overall barriers to the expansion of PES (the other was market information). Policymakers interviewed identified several major barriers limiting their ability to establish such frameworks:

- Political and social conflicts over use of market instruments.
- Appropriate policy and regulatory models not known
- Lack of practical guidelines and advice on design and implementation.
- Challenges to design PES with positive equity impacts
- Challenges of shaping PES to address underlying priorities for ecosystem management

ANNEX 2B. BARRIERS TO PES BY TYPE OF MARKET

Forest Trends consulted widely with experts and actors in major types of markets identified to be of greatest conservation interest, and also undertook targeted assessments of barriers for coastal ecosystem service markets (Agardy 2005), agri-environmental payments (Rhodes and Scherr 2005), carbon emission offset markets (Scherr, Inbar and Jenkins 2005), biodiversity offsets (Inbar and ten Kate 2005).

Coastal ecosystem service markets

A review of coastal marine ecosystem services undertaken for this project identified a large number of services provided by distinct elements of the ecosystem (estuaries, mangroves, lagoons, intertidal pools, kelp beds, rock reefs, seagrass and coral reefs (Agardy 2005, see Table A1.). The study identified a large number of potential buyers, who are directly economically dependent upon diverse services, particularly from food, aquaculture, pharmaceutical, shipping, human habitations/coastal development, tourism and recreation industries.

Table 13. Summary of Coastal Ecosystem Services and their Relative Magnitude by Subtype

Services:	Estuary	Mangrove	Lagoon	Intertidal	Kelp	Rock reef	Seagrass	Coral reef
Food	●	●	●	●	●	●	●	●
Fibre, timber, fuel	●	●	●					
Medicines, other	●	●	●		●			●
Biodiversity	●	●	●	●	●	●	●	●
Biological regulation	●	●	●	●		●		●
Freshwater Retention	●		●					
Biochemical	●	●			●			●
Nutrient cycling	●	●	●	●	●	●		●
Hydrological	●		●					
Atmospheric & climate regulation	●	●	●	●		●	●	●
Human disease control	●	●	●	●		●	●	●
Waste processing	●	●	●			●	●	●
Flood/storm protection	●	●	●	●	●	●	●	●
Erosion Control	●	●	●				●	●
Cultural & amenity	●	●	●	●	●	●	●	●
Recreational	●	●	●	●	●			●
Aesthetics	●	●	●	●				●

Nonetheless, there are very few examples of PES systems in place. The principal barriers to expanding and institutionalizing private sector payments for ecosystem services are:

- Lack of recognition of the services and their value by beneficiaries and policymakers.
- Lack of mechanisms to prevent free-riding, i.e. if some actors pay to conserve the resources, many others will benefit at no cost;
- Lack of supportive institutions, in particular to deal with complicated issues of resource governance, and mechanisms for collecting and aggregating payments from the private sector to finance protection of ecosystem services.

Payments for Biodiversity Conservation in Agricultural Landscapes

Agri-environmental payments are better established than most PES, largely due to the prominence of public payments to farmers for conservation activities in the developed countries of North America and Europe (though commodity payments still predominate), and payments in China for agricultural land conversion, particularly over the past decade. However, the scaling up of agri-environmental PES calls for systems that achieve landscape-scale benefits and incentives for protection of natural areas and ecologically compatible and sustainable systems of production—what Forest Trends call “ecoagriculture”

landscapes. Organizing and managing agri-environmental payments to support biodiversity conservation in these landscape mosaics face key barriers, including:

1. Weak processes and incentives to enable multi-stakeholder collaboration for landscape scale managment

There is a critical need to enable collaborative strategies among neighboring land users to encourage strategically complementary approaches within the landscape as a whole. Multi-stakeholder engagement processes are required to enable local stakeholders to jointly understand landscape productive and biodiversity function; to effectively participate in land-use decisions and negotiate management agreements that reconcile multiple objectives with respect to ecology, livelihood and productivity goals; and design equitable compensation / incentive payment schemes. While there is consensus on the importance of participatory negotiation processes, there are relatively few 'best practice' examples documented. Strengthening cross-sectoral institutional frameworks and support services to enable meaningful local stakeholder participation in landscape planning and management remains a key challenge. PES mechanisms need to create incentives for collaboration and engagement in multi-stakeholder landscape approaches.

2. Context-specificity of ecosystem service provision within ecoagriculture landscapes

Clarity over the most appropriate management strategy to deliver outcomes is a pre-requisite for designing payment schemes on basis of outcome delivery. Landscape management planning for ecoagriculture requires an understanding of which mix of land use strategies will deliver optimal landscape-scale benefits in terms of biodiversity/ecosystem services, agricultural productivity and rural livelihoods – to multiple resource users. The development of PES mechanisms for ecoagriculture landscapes is significantly limited by serious gaps in understanding of the interactions between the many elements of ecoagriculture and how changes in these affect the delivery of ecosystem services at a landscape scale. The monitoring of impacts of the management intervention on biodiversity and productivity at a plot-level in itself complex. This complexity is exacerbated when scaled up to monitoring collective outcomes from a mosaic of diverse (production and conservation) land-use practices within a landscape. [Understanding of the influence of scale on ecosystem service provision is currently weak, i.e. impacts of fragmentation, the fact that different ecosystem services may be most optimally different at different spatial scales]. Even when this understanding is in place for a specific landscape, outcomes and values are extremely context-specific, making it extremely difficult to compare results and values across sites, transfer / upscale management models, monitor and certify context-specific performance and outcomes – and thus design sufficiently robust / resilient and equitable PES mechanisms.

3. Highly dynamic nature of ecoagriculture landscapes and stakeholder values

The dynamic nature of ecoagricultural landscapes exacerbates uncertainty regarding outcome delivery – and thus collective risk to sellers of ecosystem services within the landscape. The design and administration of PES mechanisms must be robust / adaptive enough to uphold the consistency of payments to sellers in the face of dynamic land-use change and constantly fluctuating (stakeholder and market) values with respect to ecosystem health, agricultural production and livelihood objectives. Dynamic land-use is a more general challenge to the design of PES schemes – but the mosaic of land-uses and land-users that comprise an ecoagriculture landscape significantly enhances the fluidity of land-use and the diverse range of stakeholder values that it has to accommodate. PES mechanisms must function in highly dynamic social and economic environments, and be robust to adaptive collaborative management processes. Climate change and impact upon dynamics in ecological service provision could heighten this complexity further.

4. Lack of cross-sectoral institutions with the capacity to design or administer PES within ecoagriculture landscapes

Existing PES schemes are primarily established to administer payments to individual plot-managers. Furthermore, most institutions influencing land and resource use at local, national and international levels continue to operate with narrow sectoral perspectives. Most agricultural landscapes lack institutions sufficiently inter-disciplinary and multi-stakeholder to efficiently support ecoagriculture implementation, the design and administration of payment mechanisms, or the enforcement of rights to buy and sell ecosystem services. Ecoagriculture landscapes, comprising a matrix of protected area and agricultural production plots, present exceptional challenges with regard to determining the respective contribution of diverse land management practices that collectively deliver ecosystem services, the diversity of potential sellers operating within the landscape (farmers, forest communities, private companies, conservation mangers), payment administration to diverse sellers (should payments be on an individual or co-operative basis) and the determination of legal rights to buy and sell.

5. Need for tailoring of PES incentives at a plot-level – to facilitate delivery of outcomes at a landscape scale

Most appropriate PES mechanism for each plot within the landscape may be contingent upon where the plot lies within the landscape's spatial configuration. For example conservation easement may be most appropriate for plots where non-disturbance is critical (nesting site, protected area etc), coupled with payments for agricultural stewardship in areas of landscape already under cultivation. Thus, an incentive system for an ecoagricultural landscape would ideally comprise a portfolio of PES mechanisms, with different land-users benefiting from different incentives (also inter-dependent on neighbouring management practices) to collectively deliver management goals at a landscape scale.

Carbon emission offsets

Over the long term, carbon sequestration and storage through and use modifications may offer the largest single market for ecosystem services. Important barriers restrict this market presently:

1. Restrictive regulatory framework

The single most important barrier to growth of these markets are carbon trading regulations that seriously restrict the use of LULUCF activities to offset legally mandated emission reductions. This is despite the fact that land-use changes are responsible for 20 to 25 percent of all carbon emissions globally. Within the developed countries, which have commitments for emission reductions under the Kyoto Protocols, there are modest limits on use of LULUCF within the country. The European Trading Scheme, which covers half of emissions in Europe, does not permit use of LULUCF projects. Under the Clean Development Mechanism rules, only forestation and reforestation are permitted, and there is a highly restrictive cap on the proportion of emission offsets that can be obtained through land use projects.

The single most important land-use related source of carbon emissions is deforestation, due to the high levels of carbon stored in forests. Yet averting deforestation has been excluded from most carbon trading rules. Intense political opposition to including avoided deforestation during the 1990s and early 2000's came from certain environmental groups intent on focusing pressure for industrial emissions reduction, and from countries like Brazil concerned with loss of sovereignty. These sources of resistance have softened significantly in the past several years, and a new Coalition of forest countries are now mobilizing support for re-opening the dialogue.

2. Credibility of carbon offsets

Many of the concerns about measuring and monitoring land-use related carbon emission offsets that dominated discussions during the 1990s and early 2000s have been resolved. Nonetheless, questions remain about determining baselines, additionality and permanence. There has been debate as to whether carbon offsets sold in the private voluntary carbon market have been rigorous enough, which has affected buyer confidence. A number of new mechanisms for certifying the quality of carbon projects have been devised, but are not yet well tested.

3. Uncertain regulatory framework

With the U.S. failure to ratify the Kyoto Protocols, and awareness that the commitments under the first period were much too low to have a major impact on global climate processes, there is some question about the second commitment period of Kyoto. Thus, while ratification of the Protocols and coming into force of the EUTS led to sharp rises in the price of carbon emission offset credits, this has slowed due to uncertainty about the future regulatory framework.

4. Limitations of the "project" approach

In signatory countries to Kyoto, benefits of large-scale aforestation and soil carbon enrichment count towards national carbon accounts which aggregate all land use emission and sequestration. In developing countries, however, carbon trading is structured around "projects." A major barrier to expansion are the transaction, organizational and monitoring costs of individual projects. Alternative approaches that would encourage large-scale land use change (e.g., at a state, provincial or ecosystem scale) have not yet been institutionalized.

5. Poor coordination of international climate change agreements with other multilateral agreements

Dialogue and policies for the UN Framework Convention of Climate Change have taken place within a very restrictive disciplinary and sectoral community. The rural development community, indigenous peoples, agricultural communities, biodiversity conservation organizations and agencies have been largely excluded. Thus there is limited coordination between UNFCCC, CBD, CCD, Ramsar, and the Millennium Development Goals. This has led to rules that have unnecessarily limited project design, and actually discouraged the development of projects that would have significant co-benefits for rural livelihoods or biodiversity.

Biodiversity offsets

Countries rely on oil, gas and mining projects, transport, construction and agriculture for economic development and the public relies on them for products, services and jobs. These projects are important for development; they also contribute to the loss of habitat that is a major threat to biodiversity. "Biodiversity offsets" are conservation actions intended to compensate for the residual, unavoidable harm to biodiversity caused by development projects, so as to ensure no net loss of biodiversity. Before developers contemplate offsets, they should have first sought to avoid and minimize harm to biodiversity. Biodiversity offsets have significant potential to achieve significantly more, better and more cost effective conservation outcomes, and to assist companies that impact biodiversity by securing their license to operate and helping them manage costs and liabilities. Thus they offer a potential mechanism to address high priority threats and achieve sustainable

Recent publications by investors, brokers, companies, governments and NGOs suggest that a new social contract is emerging for companies with an impact on biodiversity: society depends upon the goods and services they provide, and understands that extraction and manufacturing processes have environmental and social impacts. However, to continue to enjoy this license to operate – in terms of both formal permission from governments and social license from the public – companies must demonstrate that they are operating according to best practice with respect to biodiversity. Increasingly, such best practice is understood as minimizing and mitigating impact on biodiversity from their operations, and offsetting the residual, unavoidable impact.

However, the development of biodiversity offsets on a scale that would be significant for conservation faces some key barriers:

1. Weak standards for managing biodiversity impacts

Environmental Impact Assessments and corporate environmental management systems rarely focus on threats to biodiversity, but tend to seek engineering solutions to reduce impact and emissions. Companies may rehabilitate only the project site, leaving the surrounding area that the project has affected degraded. The restored site often has little conservation or biodiversity value. The poor environmental, socio-economic and health legacies of such sites have damaged biodiversity and local communities' lives. They have also created liabilities for and harmed the reputation of companies, often decades after an operation ends.

2. Lack of agreed "best practices"

A range of methodologies are used by developers, environmental groups, and governments to determine what the impact of development will be on biodiversity, what is the appropriate offset to compensate for that impact, where an offset should be sited, the size of that offset and how the offset will be sustained. However, to routinely incorporate biodiversity offsets into development projects, accepted and cost-effective methodologies and standards are needed based on sound science, to measure development impacts and establish prioritized offsets.

3. Political risk of offsets

Many companies who would otherwise be interested in doing biodiversity offsets are concerned about the political and public relations risks of engaging in offsets. They are concerned about possible negative publicity from environmental groups who believe their offsets are illegitimate or badly designed.

Wetlands mitigation banking

Wetlands mitigation banking is one of the best-established, large-scale cap-and-trade PES system, although it has been implemented almost exclusively in the United States.

1. Regulatory weaknesses

Within the U.S., the principal barriers to further expansion of the program have been challenges to the credibility of the system due to uneven regulatory oversight, and complexity and delays associated with regulatory approval of projects.

2. Public institutional capacity

Barriers to extension of the system outside the U.S. relate mainly to institutional capacity to manage and monitor wetland status, and establishment of legislative frameworks.

ANNEX 3A. MOBILIZING BIODIVERSITY PAYMENTS IN DEVELOPING COUNTRIES THROUGH ENHANCED MARKET INFORMATION SERVICES

Context

A major push is needed to expand biodiversity markets because they represent the single most promising avenue for expansion of funding for biodiversity conservation and restoration efforts.

In the face of shrinking wilderness areas, understanding and conserving biodiversity in countryside landscapes – defined by Gretchen Daily as "the growing fraction of the Earth's un-built land surface whose ecosystem qualities are strongly influenced by humanity" – will be the key to the sustainable and profitable management of natural resources during this century. Increasing the flow of information at the intersection of ecology, natural resource economics and conservation finance will allow policy-makers to make better-informed decisions about how to manage the countryside landscapes now covering roughly half of the usable land in the world. If the links between land-use, species composition and ecosystem processes are clearly understood, conservation practices can be used to generate economic benefits as well as protect biodiversity (sensu Tilman 2000, Balvanera et al. 2001, Daily & Ellison 2002).

Limited number and extent of biodiversity markets

At present there are relatively few market-based and market-like instruments focused on trading ecosystem services. These markets include US Conservation Banking, the BushTender, EcoTender and biodiversity banking schemes in Australia, and less formalized biodiversity offset projects, for example that undertaken by Exxon Mobil and others in Cameroon and Chad. The 'market-like' instruments do not involve trade per se, but provide incentives for landowners for each incremental unit of environmental improvement. These include conservation concessions, easements, and various types of direct government payments to farmers for biodiversity conservation. If market instruments are to succeed in helping both humans and the natural world, lay audiences must be able to navigate the connections they chart between economics, culture, land-use, climate and ecosystem functioning.

Difficulty of finding buyers

Early participants in these activities are interested in knowing about any source of revenue that is available for specific conservation and restoration actions related to water, carbon and biodiversity. The Ecosystem Marketplace actively seeks out and publishes information on: buyers; listings and requests for proposal and tenders. In addition Ecosystem Marketplace staff work with non-profits and Fortune 500 companies that are interested in integrating ecosystem service markets – particularly biodiversity offsets – into mainstream systems of Corporate Social Responsibility (CSR). A fundamental issue that the Ecosystem Marketplace seeks to address is the definition of specific biodiversity products. Through examination of existing market mechanisms and case studies, the market information provided includes examples of the various approaches and ways of understanding the 'unit' of biodiversity protection that can be valued and incentivized.

Barriers and root causes

A fundamental issue facing any effort to affect biodiversity outcomes through market mechanisms is the necessity of providing improved information. All markets have been preceded by the proliferation of reliable and trustworthy information, and 'market-like' incentive programs can likewise benefit greatly from information on related and comparable program efforts elsewhere. Before stock markets existed, it was possible to buy into companies, but this required getting to know the owners personally, and negotiating terms of sale. Early markets in the provision of services provided through conservation and restoration actions are still in this phase. An honest broker can connect buyers and sellers, provide price signals and alert the broader community to the value opportunity inherent in these emerging markets. Starting with the MarketWatch as a platform, the Ecosystem Marketplace will provide coverage of actual transactions in the various markets and market-like instruments within which ecosystem service related values are traded.

Market information on biodiversity

There are a wide range of actors, including policy makers, project managers and potential investors, who need market information on biodiversity payments. Not all of these actors need the same level of detail and timeliness, however. In order to address these disparities, the Ecosystem Marketplace provides information in a variety of formats; from the coverage of interesting features highlighted in the newsletter to the detailed case studies and policy documents available in the library to the transaction information in

Market Watch

A plethora of projects have now been launched by public and private sector organizations around the world. The people engaged in these projects, because they are working in geographically distant areas, are not always aware of one another. In order for ongoing and future projects to learn from one-another, a common language for discussing ecosystem services thinking needs to be developed and a central information source describing the multitude of projects needs to be established. While policy makers are fundamentally looking for understanding and direction as to what types of incentive programs and market mechanisms may be effective under specific conditions, practitioners are looking for information on best practices within the context of specific market mechanisms and incentive programs.
In addition to information on innovation for competitive advantage, practitioners are looking for networks and alliances. Forest Trends function in supporting this need is to provide a comprehensive, searchable listing of these organizations along with brief descriptions and contact information. While information on these organizations is available elsewhere, it is widely scattered and not particularly useful in providing a clear sense of the extent and range of related organizations. The Ecosystem Marketplace also links this network by providing a calendar of events related to conservation and restoration markets.

Baseline analysis

Apart from the Ecosystem Marketplace, most current market information is found in academic journals and government publications. While this information can certainly be of use to biodiversity market actors, the focus of much this information is on the scientific aspects of measuring biodiversity, and certainly on the concept of applying market mechanisms to improve conservation and restoration efforts.

However there is no other source which tracks multiple programs to provide compensation based on each incremental unit of biodiversity improvement.

There are, of course numerous websites that provide information on the basic concept of biodiversity related payments, many of which are referenced on the Ecosystem Marketplace. These sites, including IUCN, World Bank and Conservation International sites, do not provide either the comprehensive approach to covering this specific issue that the Ecosystem Marketplace does, nor do they provide the kind of tangible examples that allow cross cutting analysis and development of best practices. Current information on the Ecosystem Marketplace includes a listing of individual transactions in US Conservation Banking, in the Australian BushTender and EcoTender programs, and in a wide range of voluntary payment schemes. While this presents concrete examples of transactions thus providing clear evidence of costs and benefits in specific cases, its fundamental limitation thus far is the fact that it does not contain comprehensive coverage of the complete set of transactions in any one market. It will also be important to expand on the transaction information and make it more accessible by providing cross-cutting analysis.

Another element of the baseline consists of a range of initiatives that focus on incentives to landowners for biodiversity related management. These would include the Climate, Community and Biodiversity Alliance, and the Center for Environmental Leadership in Business, along with various biological corridor strategies that include strategic payments. There are also the UNEP and GEF projects that are now involved in paying for biodiversity conservation along with the entire set of resources focused by governments on environmental management by farmers, including USDA, EU, and OECD programs. Finally, certification initiatives that include biodiversity friendly forest and agricultural practices may also be considered part of the existing baseline.

Site Elements

The current site has a homepage with a feature headline, links to current news items culled from over 2500 periodical sources worldwide, original writing including personal profiles and editorials, and links to an events calendar. Additional pages used to organize content are available through a tabular format, and include News and Opinion, a Library, Organization Directory, and Events listings. There are several thousand unique entries on the site under these category headings. All of the content on the site is searchable by keyword and can be sorted by a number of master categories as well, via drop down menus.

Marketwatch

The Marketwatch section of the site was launched on March 31, 2005 at a major event in London at ABN Amro headquarters. The Marketwatch section describes and reports on transaction activity across a range of specific markets, rolls up information from these transactions into high level intelligence on these emerging market activities, and provides listings of buyers and offers for ecosystem services.

Specific markets are divided into the same main classifications of Water, Biodiversity and Carbon that govern the organization of the whole site. Coverage of carbon related transactions contains extensive information on community and biodiversity related programs found nowhere else on the web in a consolidated format. There are fourteen specific markets and market-like mechanisms now covered, with particular emphasis on leading examples such as US wetlands and conservation banking, and world carbon markets including voluntary transactions where biodiversity and community co-benefits are particularly important, as well as the EU ETS, NSW Greenhouse Abatement Certificates and CCX.

Market coverage is global in scope, and includes Latin American PES schemes in addition to the Australian, North American and European examples. In addition to reporting on these specific markets, the site also contains Buyers Listings, where RFP's, Offers, and Tenders to purchase specific types of ecosystem service related products are listed.

Rationale

Improved market information will result in increased market activity and greater biodiversity conservation in a number of ways.

1. Cross cutting features will connect islands of best practice throughout the world. Anecdotal evidence suggests that important exchanges have already occurred that have helped practitioners working in countries as varied as Australia, India and Mexico. Continuing to connect the dots in this way will fuel new biodiversity conservation efforts around the world and, importantly, will ensure that they are efficient and context appropriate.

Examples: Past Ecosystem Marketplace features focusing on conservation and mitigation banking in the United States have led Australian government officials to approach the head of the National Mitigation Banking Association in the United States to help them structure a biodiversity banking scheme that will launch in New South Wales in 2006. The Ecosystem Marketplace team has also reached out to scientists at the South African National Biodiversity Institute (SANBI) about the prospects for biodiversity and wetland mitigation banking programs there. Ecosystem Marketplace coverage of the Working for Water, Working for Wetlands, Working on Fire and Working on Woodlands Programmes in South Africa, meanwhile, have motivated project managers in India to explore the synergies between job creation and ecological restoration. Past articles focusing on the scientific connection between forests and water quantity and quality in watersheds in Indonesia, Brazil and the Philippines have been translated into Spanish at the request of project managers working on watershed conservation in Central America. Last but not least, Ecosystem Marketplace features have examined the challenges facing PES schemes attempting to scale up in both market and geographic terms. Articles have helped identify why watershed and biodiversity conservation "units" are less fungible than carbon credits and what the implications are for this realization in terms of market creation.

2. Daily news and originally commissioned content will help mainstream markets by making them understandable to lay audiences. Increased public awareness of these markets will create PR opportunities for international corporations that might, in turn, lead to biodiversity conservation funding potentially worth hundreds of millions of dollars.

Example: After speaking with Ecosystem Marketplace staff, a science editor at The Economist used the website to author a cover article about the emerging field of market-based conservation in 2005. The impact of this article has already been felt around the world and now provides a ready reference for project managers seeking to leverage private sector funding for biodiversity conservation. Recently, the non-profit consultancy Business for Social Responsibility approached the Ecosystem Marketplace team about putting together material for Fortune 400 companies in the extractives industry that, as a result of recent press attention like that in The Economist, are now interested in exploring the possibility of investing in biodiversity offset opportunities.

3. Guest editorials, Face-to-Face Series and published Katoomba Dialogues will facilitate interdisciplinary dialogue between scientists and policy experts and market actors. This will help ensure that market-based mechanisms for conserving biodiversity advance the twin aims of economic

development and sustainable resource use. If market developments begin to outpace science or vice-versa, then the current excitement about the potential of economic instruments to advance the conservation of biodiversity will dissipate rather build. Ensuring that science and market structures fit together appropriately is a fundamental challenge facing conservationists experimenting with market-based instruments. The Ecosystem Marketplace, with GEF funding, will make a concerted effort to address this challenge in an organized and head-on manner.

Example: Past guest editorials have looked at whether markets for watershed services and carbon sequestration help or hurt the poor. These editorials helped inspire international meetings on the subject in Uganda and London and have, through an internal feedback process, informed the scheduling of future features.

4. Buyers & sellers listing will help match market players on spatially explicit scales. One of the most difficult challenges facing those who want to get involved in existing markets for ecosystem services is the difficulty of connecting with the appropriate buyers or sellers. Removing this obstacle will help private landholders reference the conservation value of their property in everyday decisions about land use.

Example: The voluntary carbon market provides a good example of the manner in which buyers of ecosystem services in the developed world are increasingly interested in linking up with sellers of ecosystem services in the developing world. The Carbon Community and Biodiversity Alliance, for example, is making use of the Ecosystem Marketplace both to publicize its efforts and to learn of opportunities for new projects. The G8 meetings and the 2006 World Cup, for instance, are going "carbon neutral" by using investments in carbon sequestering projects in the developing world to offset the emissions associated with the respective events.

The Ecosystem Marketplace will provide a platform where event committees like those planning the 2006 World Cup can go to find sustainable development projects focused on carbon sequestration. Importantly, the Ecosystem Marketplace will also work to publicize similar biodiversity offset opportunities for companies seeking to go "biodiversity neutral."

Recognizing that biodiversity generally is not a "substitable" good, the Ecosystem Marketplace also aims to work with buyers and sellers sharing the same local ecosystem. For instance, a hydroelectric project in Mexico may soon begin funding the conservation of biodiversity in the adjacent Sierra Gorda Biosphere Reserve. With the help of GEF funding, the Ecosystem Marketplace hopes to pioneer online biodiversity sellers' listings for community projects throughout the world.

5. Specific market research will allow innovation to flow from the developed world to the developing world and vice-versa. With GEF funding, the Ecosystem Marketplace will be able to provide detailed market analysis of: community- based PES in developing countries; voluntary carbon market projects emphasizing biodiversity related benefits; and various kinds of wetland and conservation mitigation schemes. In addition to collecting this research, the Ecosystem Marketplace will compile it into annual state-of-the-market reports and host industry specific events to disseminate it among stakeholders.

Example: By providing detailed market and financial analyses of wetlands mitigation banking in the U.S. from perspectives of different stakeholders, identifying international sources of expertise and holding an international workshop on the topic, innovators in developing countries will be able to adapt that model to their conditions at low cost and state-of-the-art quality. This process has already begun in South Africa and the GEF funding will allow it to continue.

6. Library and tools will help communities overcome transaction costs and barriers to market access by supplying them with knowledge and expertise.

Example: The Ecosystem Marketplace will publish accepted accounting and scientific standards for specific markets and/or buyers of relevance to communities in the developing world – e.g. the Clean Development Mechanism of the Kyoto Protocol, the voluntary carbon market and its potential for benefits to biodiversity and community, water quality/quantity standards for hydroelectric dams, biodiversity offsets for mining. Tagged case studies will also describe how other community projects have met these standards and will refer project managers to a list of tools that may be used to gather, record and transmit the necessary scientific and financial data. GEF funding will allow Ecosystem Marketplace employees to expand the breadth of tools and case studies available to community practitioners of PES and will support the effort to re-tag current content to make it easily searchable community users.

7. New tracking tools will allow the Ecosystem Marketplace to continually refine and expand the information it houses based on feedback from a wide variety of market players (from carbon financiers in London to subsistence farmers in Mexico).

Example: New tracking software will allow Ecosystem Marketplace administrators to track the geographic location of its readership and can then assess what kind of feature, news, editorial and library content is proving of most use to communities in different parts of the world. This information can then be used to inform all future editorial decisions.

Strategy

Ecosystem Marketplace editorial policy is set by the editorial staff in consultation with the international Advisory Board. The focus of coverage is on clearly on markets and market-like mechanisms that contribute to the conservation of biodiversity and ecosystems. At the same time, it is critical to provide working examples of more established environmental markets in order to provide object lessons and analysis from richer, more credible experience. In order to balance these objectives, the Marketplace has developed deep content in the areas where Forest Trends provide unique information and analysis and enjoy competitive advantage among information providers, and broad but shallower content across the whole range of environmental markets.

Forest Trends are also intent on improving the mechanisms for feedback from readers and market actors. Forest Trends are in the process of developing survey questions for these audiences and will compile responses in order to inform Forest Trends content going forward.

Forest Trends will not only be covering biodiversity payments/markets directly, but also other ES markets (carbon, watershed, etc.) that have direct and indirect impacts on biodiversity conservation. In particular, EM will begin to include content on payments for coastal ecosystem services, which are just beginning to emerge. Forest Trends will also be providing translation of biodiversity market information, supported by co-financing of the GEF grant. Forest Trends initial target languages are Spanish, Portuguese and either Mandarin or Cantonese. In addition, EM will expand coverage of agri-environmental payments in collaboration with FAO. Specific audiences Forest Trends are targeting for the provision of these market information services include buyers, sellers, intermediaries, service providers, policymakers, investors and others. Forest Trends plan targeted content improvements for regulators, practitioners and investors involved in: community PES, the voluntary carbon market, and conservation/wetland banking.

Webinars. Webinars are a combination of a web-based collaboration tool (i.e. Rain Dance, WebX or Go To Meeting) with a conference call. The Ecosystem Marketplace plans to use Webinars to publicize particular elements of content of interest to specific audiences.
Live Conferences. The Ecosystem Marketplace will convene industry specific conferences at a variety of locations throughout the world.

Market Analysis & Reports – Online or published. Once the Ecosystem Marketplace has developed deeper analysis of specific markets and/or comparative analysis between markets, the editorial team will compile state-of-the-market reports and or books. One specific example here is that FAO is particularly interested in working with the EM to develop an annual report on the state of agri-environmental markets.

Ratings and Indices

As with other types of content, Forest Trends ability to provide truly value-added information will develop from Forest Trends deep experience with individual markets as well as Forest Trends cross-cutting comparisons of various markets. While probably not a short-term proposition, the Ecosystem Marketplace will look towards developing rating systems, similar to Morningstar services, that compare various products or service providers within individual markets, and indices, that track performance of various markets or elements within markets.

Activities

Expand BD market news and analyses

The editors are committed to identifying and training writers in all parts of the world to write effective, interesting copy about emerging markets in, and payment schemes for, ecosystem services. The GEF money will allow the Ecosystem Marketplace to concentrate its efforts, in particular, on building a stable of writers in the developing world. By working with writers in Africa, Asia and Latin America, in particular, the Ecosystem Marketplace team hopes to create effective communicators who are capable of bringing voice to the subject of ecosystem services not just on the Ecosystem Marketplace site, but also in their respective local communities and through popular press outlets the world over. The Ecosystem Marketplace will use GEF money to set the standard in reporting about ecosystem services, proving to practitioners and policy makers that lay audiences can and must understand emerging payment schemes for ecosystem services if efforts to integrate the value of biodiversity into the global economy are to succeed.

Develop biodiversity market tracking

A critical element will be the expansion of Forest Trends software tracking capability which will allow us to see what countries people are accessing the Ecosystem Marketplace from. This will in turn allow greater targeting of information products, including the Newsletter features, the Library tools and regional Katoomba experiences.

New BD market information services planning and development

The Ecosystem Marketplace will make use of an expanded and focused international Advisory Board on a quarterly basis to get input and guidance on the priorities for coverage. EM will do client needs and business analyses in order to select and design new services, many of which will be explicitly for developing country clients. In addition, the feedback mechanisms discussed earlier, in particular the use

of targeted surveys to get information on the high priority needs of each audience, will guide Forest Trends editorial decisions in this area.

Global and national benefits:

The idea that ecosystem services might be quantified, valued and sold has generated a great deal of interest in the first decade of the 21st Century. Both public and private sector organizations have invested significant resources in piloting projects based on this concept and a variety of economic mechanisms have been explored under the umbrella of ecosystem service-based conservation in all parts of the world. In order to further advance the integration of biodiversity conservation into conventional capital markets, the valuable lessons that have emerged from these projects now must be extracted, synthesized and made available to those designing the next-generation of initiatives.

ANNEX 3B: THE ECOSYSTEM MARKETPLACE COMMUNICATIONS PLAN

	ECOSYSTEM MARKETPLACE COMMUNICATIONS PLAN	
	DESCRIPTION	MAJOR ACTIVITIES 2006-2010
FUNDRAISING	**Fundraising:** Create and execute plan for ongoing recruitment of new sponsors and donors to support the Ecosystem Marketplace (EM)	(1) Create sponsorship solicitation package; (2) Provide quarterly update to all sponsors; (3) Survey current supporters, staff, consultants for potential sponsor ideas; (4) Prioritize top sponsorship targets -- 10 per Quarter -- and plan strategic approach (e.g. identify 'friend' who can make introduction, invite to EM/Katoomba event, etc.)
	Advertising Revenue: Develop and execute plan to attract advertisers	(1) Barter with relevant sites to trade ads initially; (2) Survey/examine ad strategies of like organizations; (3) Brainstorm and prioritize top advertising targets -- 10 per Quarter; (4) Create strategy that identifies and sells advertising value to targets based on knowledge of EM users (e.g. not volume of site visitors, but quality of visitors, what they're looking for, what services they need, etc.); (5) As paid ad revenues grow, devise ad sales staffing strategy; (6) Create strategy to offer 'Pro-bono' advertisements to select organizations whose presence on EM is valuable, particularly community-based organizations and/or those that serve this audience.
MARKET ANALYSIS AND EVALUATION	**Audience Analysis Matrix:** Interview/survey key stakeholders to get information that can inform decisions on marketing strategy, product/service development, etc.	(1) Identify priority stakeholders to interview/survey using Audience Analysis Matrix; (2) Prioritize interviewees based on their knowledge of specific markets (e.g. wetland/conservation banking, markets for biodiversity, voluntary carbon, etc.) and the needs of those active in the market; (3) Focus sets of interviews in target geographic areas to coincide with Communities' strategy; (4) Complete Audience Analysis Matrix with at least 20 stakeholders per Quarter; (5) Consolidate information from interviews and loop analysis back into plans for product/service development, marketing and communications, etc.

	EM Traffic Analysis -- Track, analyze and report on site visits, newsletter subscribers (where are they coming from)	(1) Monthly quantitative and qualitative reports on EM visitors and e-newsletter subscribers; (2) Quarterly analysis, recommendations for improving EM reach to specific audiences.
	Evaluation: Develop and implement plan to get (annual?) feedback on EM from important audiences	(1) Ongoing evaluation of EM by Katoomba Group members, other networks; (2) Develop tool for annual evaluation -- broad survey, targeted focus groups (e.g. market- or geographic community-specific)
COMMUNICATION: PLANNING	**Communications Planning:** Create detailed calendar/plan; communicate it on monthly basis with entire EM team	(1) Ensure communications plan is in line with overall strategic objectives for ongoing development of Ecosystem Marketplace
	Communities Communication Strategy: Create separate, integrated strategy to reach targeted low-income indigenous audiences.	(1) For all aspects of overall communications plan, ensure there is a strategy that specifically addresses communication and outreach needs to serve low-income indigenous communities. This includes creating targeted press and stakeholder contact lists for regular communication; using appropriate outreach tactics (printed material, radio, CD Rom, videos and mobile phones); and creating specific feedback loops to make sure Forest Trends communication to indigenous communities is effective.
	Internal EM Communication: Map schedule of EM content, newsletter, site changes, new sponsors, etc. and leverage these for press releases and other communication opportunities	(1) Increase EM 'presence' by making regular announcements about new site developments (e.g. launch of Communities page; site re-designs, new market coverage, additional features, new sponsors, etc.); (2) Regularly 'alert' press and other relevant audiences about planned content via wire distribution (CSRWire, E-Wire) and other means (radio announcements in Africa, for example)

COMMUNICATION: EXTERNAL OPPORTUNITIES	**New Reports:** Track reports being generated by organizations that might be relevant for EM coverage and/or as news hooks	(1) Network with colleagues in relevant organizations, keep schedule of their planned report releases (e.g. environmental NGOs, sustainable business organizations, etc.)
	Policy and Business Developments: Track developments that might be relevant for EM coverage and/or as news hooks	(1) Brainstorm and include in calendar possible news hooks (for example: Farm Bill (US), Canadian carbon emissions trading meetings, anniversary of EU Emissions Trading Scheme, others); (2) Increase EM presence by placing Op-Ed or distributing statements via press release, pegged to appropriate developments
COMMUNICATION: TACTICS	**Events** (meetings, conferences): Propose and schedule top 24 events for best marketing, relationship-building opportunities	(1) Create schedule of conferences worldwide that draw relevant audiences; (2) Select top 24 based on topic relevance and priorities for reaching specific audiences, e.g. indigenous communities and supporting institutions in target countries; (3) Secure speaking engagements (1-2 per month) and do pre-conference outreach to encourage attendance at workshop or speech; (4) Provide education/outreach materials at events; (5) Plan networking meetings in conjunction with conferences.
	Partnership Marketing: Coordinate outreach to current/potential partners for marketing oppty's (web links, nsl articles, joint activities, speaking engagements, etc.)	(1) Systematic outreach to existing sponsors to maximize their promotion of EM on website, through newsletters, other communication vehicles; (2) Build list of priority new marketing partners to approach; (3) Develop workplan to approach 20 potential partners per Quarter (4) Coordinate with advertising efforts.

	Press Releases and Media-Friendly Reports: Develop brief reports, press releases and/or other deliverables as tools for regular outreach to reporters to educate, and gain coverage of EM	(1) Distribute at least 1 press release per month and at least 1 report per Quarter; (2) Brainstorm topics (e.g. status of env markets and case studies; profile of market case studies in developing country communities; wetlands mitigation banking -- trends and profiles; status of species markets in US; users' guide to conservation banking...) (3) Create distribution strategies to reach variety of media channels (wire service distribution to business, conservation, corporate sustainability reporters in U.S., Europe; radio actuality distribution to reach local media in targeted developing countries, etc.)
	EM e-Alert Send periodic brief alerts regarding Ecosystem Marketplace	(1) Build 'Colleagues' email list exclusive of those already on e-newsletter list; (2) Send regular (once/month) email on EM developments, aimed at encouraging sign-up for e-newsletter; (3) Continually build list using sign-ups at conferences, meetings, etc.
	Media Outreach: Cultivate reporters	(1) Develop story ideas to pitch regularly to priority reporters; (2) Build on existing press list to include more reporters outside U.S. and Europe; (3) Call or email each priority reporter at least once every two months to build relationships and nurture ongoing interest in the Ecosystem Marketplace.
	Other Media (Op-Ed, editorial meetings, etc.)	(1) Develop op-ed and editorial board strategy; (2) Write and attempt to place at least one op-ed every two months; (3) Schedule editorial board and/or reporter visits to coincide with spokespersons' travel.
	Website Marketing -- Develop and implement plan for search engine optimization, other e-marketing tactics	(1) Implement strategy to optimize visibility of Ecosystem Marketplace to search engine users; (2) Research and implement other web-based marketing and advertising strategies.

ANNEX 4. COMMUNITY FACE OF THE ECOSYSTEM MARKETPLACE

Component Rationale:

Most biodiversity hotspots are inhabited by low-income communities dependent on resources for their livelihoods. Biodiversity loss, land use change, and land degradation are processes prevalent in property inhabited by communities, which threaten to cause important irreversible losses. Although communities are the main providers of ecosystem services, they are largely ill-prepared and/or face barriers in terms of their ability to become involved in PES programs. Without addressing these shortcomings, low-income community sellers will be unable to participate fully and equitably in PES programs, which in turn will continue to challenge the development of PES as a solution to biodiversity loss, ecosystem management AND income generation for poor communities.

Because of numerous barriers to PES participation listed below, communities, a key sector required for enabling successful biodiversity and other ecosystem services to be restored and improved, lack much needed expertise, support and means to participate effectively in a promising mechanism such as PES programs. This fact needs to receive considerable attention and resources in order to enable successful PES programs and thus resource management and conservation. The Community Strategy presented in this project focuses on meeting these shortcomings in the most efficient fashion, based on local solutions via the involvement and direction of local community support institutions, while taking advantage of the wealth of knowledge that has been concentrated in the information platform EcosystemMarketplace.com. Part of the strategy includes contracting a Community Editor who performs relevant support for the Community Ecosystem Marketplace Portal, as well as market information services for in-country PES support organizations and communities.

Barriers to Community participation:

A barrier for communities is learning about potential buyers of their ecosystem protection services, mainly due to an inability to access information and be incorporated in program processes.
Barriers to organizing their own participation in PES result from lacking organizational capacity and abilities, and knowledge about the complex ecological, economic and social issues that PES programs require.
Influencing PES program design is difficult due to insufficient know-how regarding ecological, economic, social and institutional mechanisms involved and a lack of openings in policy and program design contexts allowing for community input.
Ensuring that PES programs meet community needs and are adapted to their specific context is hampered by weak local institutions and poorly prepared leaders, lack of information, training and support structures.
Sharing community experiences and lessons are a useful way to improve pro-poor outcomes for communities, but deficiencies in communications infrastructure, finances and networks to develop interactions hinder their ability to learn as a group.

Strategy for the Community Face of the Ecosystem Marketplace:

Alongside the Regional Katoomba Group capacity building efforts of this project (see Annex 5), mechanisms that build capacity of communities more specifically deserves separate attention. Targeted community capacity building includes education and knowledge of PES (logistical, economic, scientific), strengthening leadership and organizational / negotiation capacities, communications infrastructure improvements, and targeted support relationships. Further developing the Ecosystem Marketplace into an information source for all community support organizations in different Regions, with targeted content and design improvements in a Community specific portal of the Ecosystem Marketplace website, will enable them to obtain both the knowledge of how to incorporate communities into PES, as well as the tools to share that knowledge directly with communities.

Key Elements of the Community Strategy:

This project will reduce barriers for community groups to access market information access and support, and provide them with needed information and tools, leading to their strengthened role as a key participant in PES development and implementation. This will be accomplished by establishing a coordinated work program between:

- The Ecosystem Marketplace Community Portal, including relevant information services provided by the rest of the Ecosystem Marketplace and Marketwatch,
- An International Community PES Advisory Group
- The Ecosystem Marketplace Community Editor, and
- Regional Katoomba Groups who coordinate nationally and locally with the communities on the ground.

Strengthening community participation in PES must be based on the myriad local support institutions with preestablished community relationships and the means to interact with communities, as well as the education of all players involved in PES at the local level. Thus, the strategy and priorities for the Community Portal of the Marketplace and for the work in the different regions will be developed by a 5-10 person International Community PES Advisory Group that includes community leaders, NGO leaders, buyers of community based ecosystem services, and relevant government or policy representatives, plus the Community Editor. Advisory Group members will interact locally with members of the Regional Katoomba Groups who have direct dealings and programs with community members, understand specific community needs, and decide on the use of resources to reinforce communities' knowledge and expertise in PES.

The Community Editor in the Advisory Council will maintain the link to the Ecosystem Marketplace, allowing the Marketwatch and Community Portal section to be continually updated and maintained. Community profiles, community focused articles and editorials will be developed for the Community Portal, Newsletter and Marketwatch section on contract by local writers. All information on the Community Portal can benefit any PES initiative from other institutions, and partner with them as well.

Design and Content Elements of the Community Portal:

The community section of the Ecosystem Marketplace will be designed for facility of use by audiences less familiar with the workings of PES, based on current research and activities taking place in the multiple global and regional PES focused endeavours defined in the baseline. Most contents will be provided in Spanish and Portuguese as well as English. This improved design will have topic menus to

facilitate finding information on specific aspects of PES that relate to communities and in a language and display format that can be transmitted and distributed directly to community members (including visuals).

Improved content of the community portal will include various “Introduction to PES” type documents, including sample contracts, best practices and pitfalls, sample PES designs by service type, and negotiation tools, among other tools. Multiple directories of use to community PES will be developed, including one of organizations, consultants and government agencies that assist community sellers or buyers of community services, a supplier directory by service and region, a certifier directory, a research directory both of research available, and research requested by communities. Specific community-related events and resources will be announced on the Community Portal and the newsletter, including upcoming forum events, training workshops, public PES hearings, and new PES programs and the phase they are in.

Specific content will be developed also for buyers of community PES and policy makers to help them learn the benefits of dealing with communities directly, identify community sellers and other community service buyers, see sample contracts and learn about building trust with communities, and provide overviews of key issues in working with communities, policy briefs, etc.

Other Community Information Services:

This project includes a specific plan for the development of materials and content that support community participation in PES, in the formats and modalities that are of most use and easiest to access by communities. Through research with community outreach specialists in the different countries, country-specific plans of action have been planned to distribute the materials using various mechanisms that are appropriate to the specificities of each country: internet website and electronic material, other media including video and CD Rom, Radio show and announcement production, mobile phone messaging and hotlines as well as printed materials in the form of manuals, posters and leaflets. Regional Katoomba Groups, Community Advisory Group and the Community Editor will decide on spending of funds for outreach materials in formats appropriate for communities, and locally develop radio shows, printed media, videos and text messaging outreach.

Diverse tools will be used to incorporate feedback and response from communities onto the Ecosystem Marketplace. Where direct internet access is limited, mobile phone technology will be used. Community representatives can send text messages to support institutions to upload onto the website regarding interest in being included on the community supplier directory, requesting support for some technical aspect of involvement in PES, or to communicate a contract or transaction made between the community and some buyer. A hotline may be set up to contact community support institutions and enable them to submit information about themselves. Ecosystem Marketplace reporters will visit community PES projects to document their activities and lessons learned. Close interaction between community support institutions and communities on a personal basis will also continue to be a key form of interaction with communities. Communities will be encouraged and supported to directly exchange experience with one another through face-to-face meetings and video “tours”.

REF: Carina Bracer, Community Report (2005).

ANNEX 5: REGIONAL KATOOMBA GROUPS: CLIENTS, STRATEGIES AND THEMATIC AREAS FOR CAPACITY BUILDING

Component Rationale:

Few stewards of ecosystem services are currently able to garner financial revenue as a result of their work due to the structure of current economic activities and the historical provision of these services for free. PES presents potential new solutions to the need for finding diverse ways to achieve local and national goals for biodiversity conservation and conservation of ecosystem services that are critical to human livelihoods and economic development. Many groups from a variety of sectors have begun to participate—as buyers, sellers, policymakers, service providers--, and more are interested in doing so, but often lack the understanding, means, skills and tools to enable them to make the best use of PES. (See Annex 2 on Barriers). PES project approaches, policies, rules and institutions are being put in place with little systematic assessment or public dialogue about the role of PES, relative to other instruments, in achieving national conservation and development goals, or about key design elements that will have long-term impact on conservation and cost-effectiveness, equity and sustainability. This project will seek to address the challenge of building capacity for institutionalizing PES in east and southern Africa and tropical America, where interest and activity in PES are growing quickly and where the need to find new ways to finance biodiversity conservation outside of protected areas is especially acute.

The Strategy for developing Regional Katoomba Groups:

The strategy for capacity-building based upon more than six years of experience with the "Katoomba Group," an informal network of international innovators in PES who meet regularly to discuss and build on their work related to PES. Knowledge development and exchange, cross-sectoral networking, and policy dialogue undertaken in the Katoomba Group led directly and indirectly to improved understanding of PES and its applications, greater investment in PES, improved design and implementation in specific projects, and improved policies. At previous Katoomba Group meetings, participants from Tropical America and East and Southern Africa expressed an interest in developing such networks within their own region.

The Regional Katoomba Groups will develop their own identity and work processes suitable to their particular regional needs and abilities. As with the international Katoomba Group, the structure will be flexible enough to adapt and allow for the allocation of local resources to specific needs as these arise. Similar to the Katoomba Group, the networks will likely result in sub-groups that are formed to work on specific problems and projects. The regional networks can create an enabling environment for local actors to take critical steps towards the development and improvement of PES initiatives and policies, and be their own model for change. The groups will become a model for intersectoral cooperation in PES at diverse scales. .

Participants in the Regional Katoomba Groups:

These groups will be comprised of "un-usual suspects": all participants will be entrepreneurial individuals who are working throughout the spectrum of PES- from buyers to sellers and intermediary organizations,

including international NGO's. It will also include individuals associated with strategic planning, policy and implementation efforts at national and regional levels.

Based on cross sectoral participation, their main goals and outcomes will be to: i). support buyer mobilization efforts in their region, ii). mobilize supportive policy for PES to achieve conservation and development objectives, iii). provide direct support to PES projects and initiatives and iv). carry out general awareness raising via their participation in activities in their region. Coordinated efforts of the regional Katoomba Group will be strengthened via the facilitated interaction and cooperation provided by a Regional Ecosystem Marketplace Portal (one for Africa and one for Tropical America), the efforts of a regional partners in each network and the Global Katoomba Group Coordinator.

Elements and Activities of the Regional Katoomba Groups:

The intent of the groups is to create a regular forum in which promising PES leaders, from both national and community levels, can gather and devise strategies and specific activities for developing PES in their geographic areas of focus.

The uniqueness of this approach lies in the "portfolio" nature of the projects the Regional Katoomba Group participates in, which provides a platform for active and direct learning, comparative analysis between projects, gauges best practice from emerging market models and, links to the global expertise of the Ecosystem Marketplace, as well as to the broad policy development capacity of the Katoomba Group. The aim is to use the collective experience of the learning networks to influence business and policy frameworks. Rather than gathering the lessons of individual projects, the project will harness the collective ingenuity and shared experiences of a broad group of projects for PES.

These activities will also draw lessons from and encourage exchange of experience about business models among other PES projects being implemented by Katoomba Group members, as well as those being developed by GEF, UNDP, UNEP, IFAD and World Bank. The interactions will occur through a mix of face-to-face meetings as well as web-enabled meetings using the new Regional Portal functionality of the Ecosystem Marketplace.

Output 1. East and Southern Africa Region Katoomba Group

An Annual meeting with 50-60 people from 5-6 countries, including Kenya, Madagascar, Malawi, South Africa, Tanzania, and Uganda. The Groups will include members from NGOs, public agencies, private sector, farmers' organizations and ecosystem service buyers, as well as UNDP environmental officers and major GEF-UNDP PES project team leaders. The design of the workshops will be strongly informed by action learning and efforts to create a "marketplace" that will reduce transaction costs associated with buyers' identifying sellers, steps in negotiating and structuring deals, and other key elements to launching PES.

In conjunction with, and with the help from EcosystemMarketplace designers, an "Africa Ecosystem Marketplace Portal" will exist on the main Ecosystem Marketplace website as a platform and knowledge-sharing area for PES players in the region, helping them develop their own regional approach to PES development. Webinars, wiki document development tools and blogs could be used in this space.
The establishment of Rapid Response Teams wherein selected regional or international Katoomba Group members accomplish specific support tasks for PES projects in their region, and also participate in specific policy initiatives of relation to PES. The Regional Katoomba Group will decide the criteria for selecting where to provide help, how to prioritize their resources. Reports and learning from these site

visits would be shared among regional Katoomba Group members on the Africa Portal of the Ecosystem Marketplace website.

Output 2: Regional Katoomba Group in Tropical America

In tropical America, learning from the numerous existing initiatives focused on PES will help guide the Regional Katoomba Group. A similar model including elements described above. Participating countries will likely include Brazil, Bolivia, Colombia, Costa Rica, El Salvador and Mexico.

Output 3. Models, Tools and Best Practice Guidelines for PES Policy, Planning and Institutions developed and disseminated

The project will organize in-depth strategic analyses and policy dialogues of major issues related to the development and management of ecosystem services payments and markets. Topics will initially focus on institutional mechanisms for PES, methods to equitably involve low-income producers and address the MDGs, strategies to scale up the use of pro-poor PES, and design recommendations for new types of instruments, such as biodiversity offsets. Other topics will emerge from the work of the learning networks and strategic planning activities.

The project will develop resource materials and toolkits to support leaders from diverse sectors in evaluating and implementing policy and institutional and business options for developing ecosystem service payment systems. For example, the Katoomba Game simulation for ecosystem services will be adapted to African and Latin American conditions and used in training workshops. In addition, materials tested in training courses will be revised, translated to major languages and made globally available through the Ecosystem Marketplace, and for use in national and regional training programs. The project will both partner with and provide technical assistance to plan, design and implement PES in critical institutions located in focal areas. In addition to one-on-one institutional attention, Forest Trends will also as draw upon the latest practice in establishment of effective self-organizing networks that will create new inter-institutional action learning partnerships that will develop capacity broadly.

Output 4. Tools and institutional mechanisms for aggregating private sector buyers developed and tested

The project will develop best practice in business models for PES, by organizing, supporting and synthesizing lessons from several learning networks of ecosystem service projects being organized by the Katoomba Group. The learning networks will aggregate and systematically support projects that are in development through design assistance and targeted technical support for specific project needs. Models will be developed and evaluated that especially meet the needs of low-income producers. (See Annex 6.)

REF: Waage, Sissel, et al. Capacity Building Report (2005) and Mweya Katoomba Group Meeting Summary (Oct 2005)

ANNEX 6: KATOOMBA GROUP REGIONAL NETWORKS: MOBILIZING PRIVATE SECTOR BUYERS OF ECOSYSTEM SERVICES

Rationale:

The context of the problem

Potential private sector buyers of ecosystem services represent a critical opportunity for biodiversity conservation, as the potential scale of private sector payments dwarfs current and potential payments from governments and civil society. But private buyers are also the most challenging "player" of potential market actors. The market for ecosystem services is so embryonic that most observers do not yet fully understand where the best opportunities lie, nor the full extent of market limitations. At the same time, because buyers are not monolithic, each industry and/or type of ecosystem service will vary in terms of barriers and motivations for its market actors. Given this set of complexities, Forest Trends proposes a range of activities that will advance Forest Trends understanding of the buyers' side of the market while also measurably increasing the number of buyers and transactions in the marketplace. The range of projects undertaken in this proposal will help differentiate between markets where buyers can have a large conservation impact, and those markets where buyers might have a smaller impact.

The vision for increasing available and interested buyers

The tipping point for the ecosystem services market will emerge when the incentives for purchasing an ecosystem service exceed market obstacles. Therefore, the vision for mobilizing private sector buyers requires a mix of projects and activities that sufficiently increase incentives and/or decrease barriers. Different markets lend themselves to different strategies: in carbon offsets, strengthening policies to measure, verify, and generally support land use credits may increase buyers by lowering the barriers; in contrast, shining a spotlight on the risk of losing a key resource such as water may create enough incentive for a group of buyers to invest in watershed protection. The analytical work embedded in each activity will create a set of tools and models that other components of the GEF-support Project – whether a regional Katoomba group or a biodiversity offset program or a forest enterprise – can draw on to develop its own mix of strategies for bringing more buyers into PES.

Current Status:

PES have begun to catch the private sector's attention not only as an effective and cost-efficient conservation tool, but also as a sound business investment. These private sector stakeholders have incentives to pay for ecosystem services for motivations that range from regulatory compliance to business benefits to philanthropy and charity. A recent study by Forest Trends recorded more than 100 cases of private PES and more than 1100 transactions of private PES. The bulk of current initiatives takes place in South America and Asia, which account for 65 and 25, respectively, of the 100 cases reviewed (Mulder, ten Kate and Scherr 2005). The principal motivations for buyers of ecosystem services are as follows:

Table 14: Buyers of ecosystem services

Ecosystem Service	Buyers	Trends in Motivations for Buying
Water	Agriculture sector, hydro power companies, construction/land development sector, food and beverages sector, municipal water users	The natural filtration capacity of ecosystems can be more cost-efficient than filtration plants, so cities and municipalities who wish to secure or improve water quality and regulation pay upstream users for improved water management practices (examples include New York and Pimampiro, Ecuador)
Biodiversity	Pharmaceutical/horticulture sector, energy/oil/petrochemical companies, construction/land development sector, food and beverages sector, tourism sector	Construction companies and land developers attempting to offset damage to biodiversity (regulatory offsetting is required in United States wetlands and lands with red-list species, the Netherlands, and Brazil)
Scenic beauty	Tourism sector, commercial/advertisement sector	Tourism companies pay to secure the scenic beauty of landscapes, which they depend on for income generation (examples include the Meliá Conchal hotel chain in Costa Rica)
Carbon	Foresty sector, energy/oil/petrochemical companies and industry, car manufacturing industry	Companies in the oil/petrochemical and energy sector attempting to offset their carbon emissions (examples include British Petroleum (BP) and American Electric Power (AEP))

Figure 5. Private sector demand for ecosystem services in 100 cases

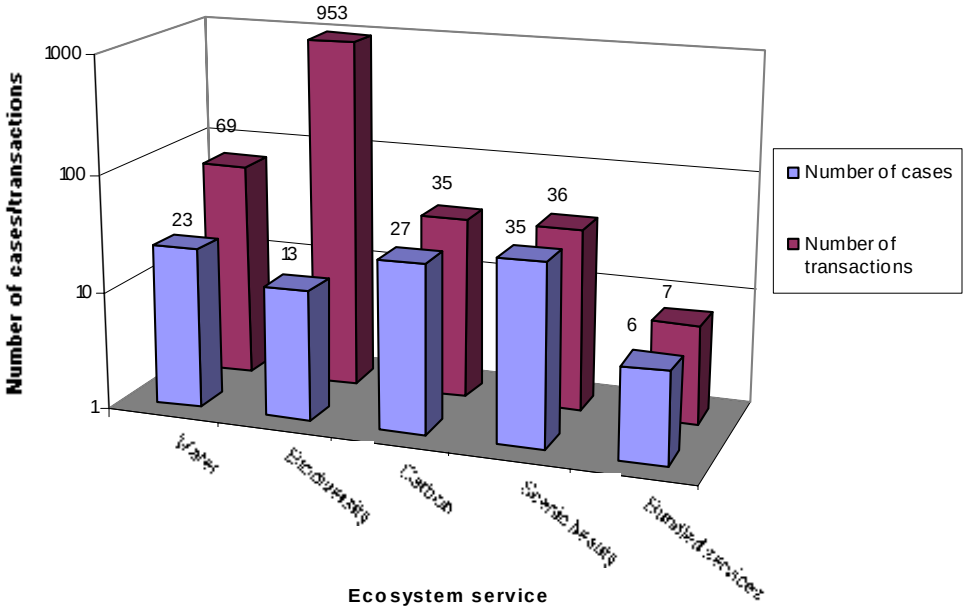


Figure 6: Taxonomy of private sector actors paying for ecosystem services; the number of cases and transactions in 100 cases

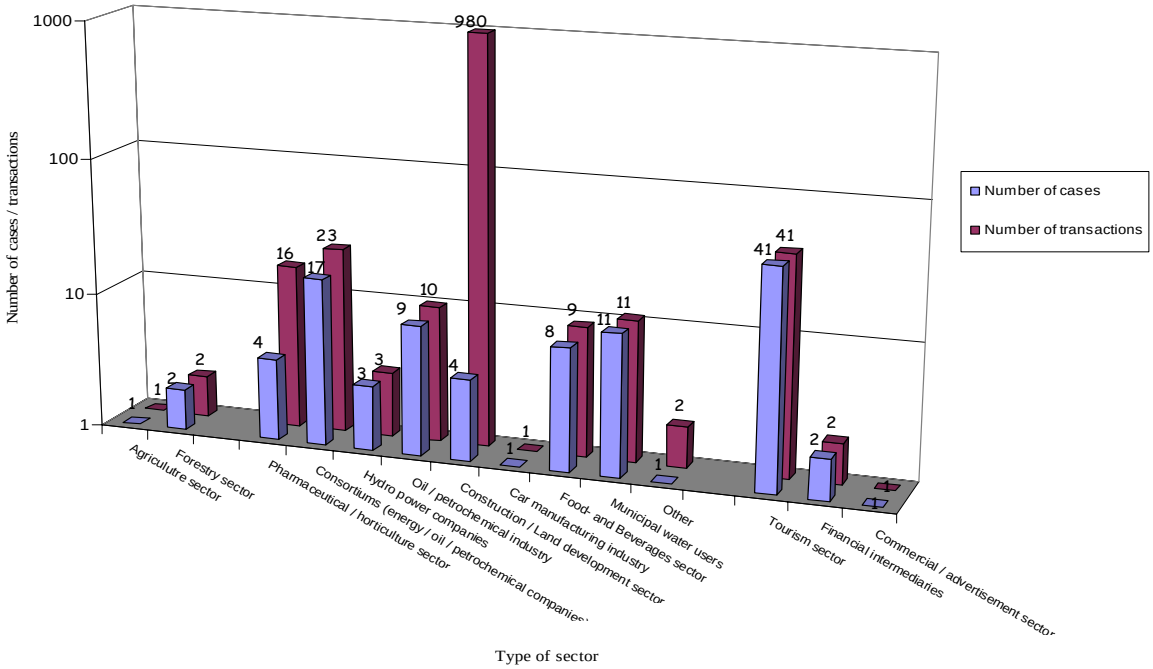
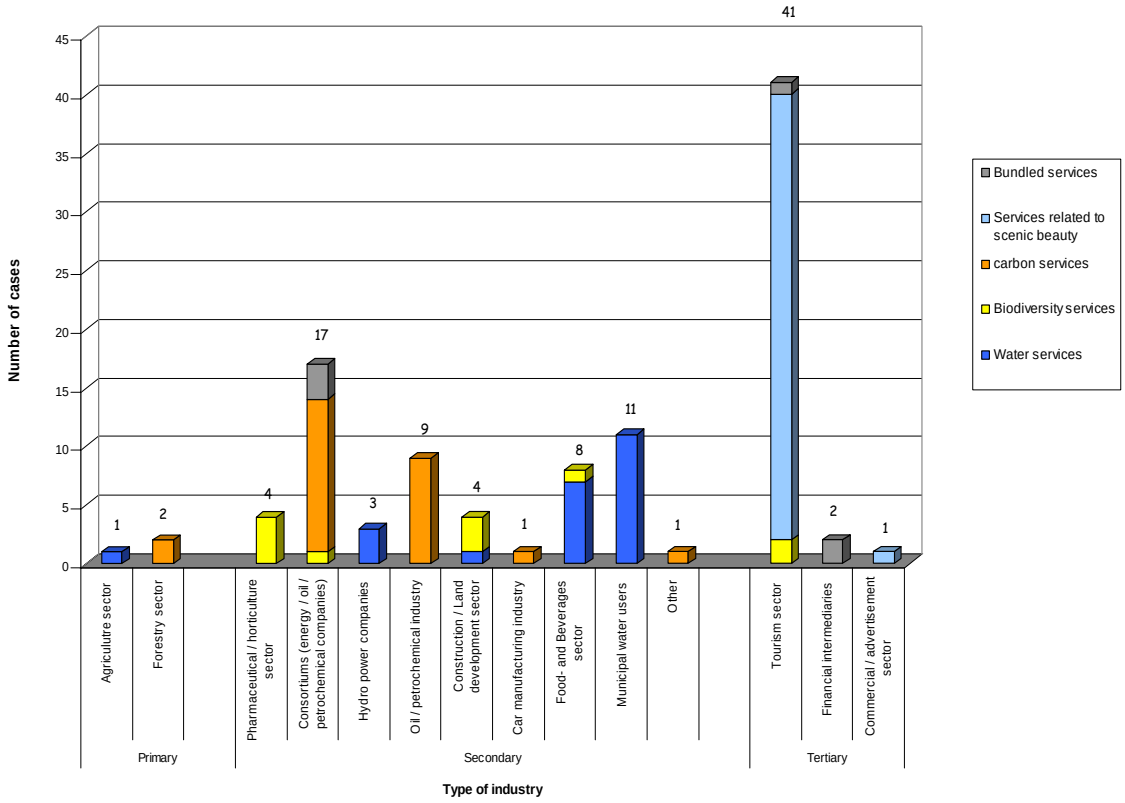


Figure 7: Taxonomy of private sector buyers for ecosystem services by type of ecosystem services



Barriers:

Consultations with potential or actual buyers of ecosystem services found a number of major barriers preventing their participating or expanding their activities:

- Business leaders are unaware of the role and value of ecosystem services to their business.
- Business leaders are unclear about the financial benefits of ecosystem payments
- Private sector buyers often require institutions for aggregation of activities which do not exist
- Lack of internal capacity to plan and manage PES
- Lack of clear and publicly-endorsed mechanisms

Approach

Understanding the buyers' side of the ecosystem services market begins with addressing two fundamental questions: To what extent are buyers being limited by lack of information or institutional structure to support payments for ecosystem services? To what extent are buyers not yet motivated to buy? In order to build the market for ecosystem services, a range of different activities need to occur depending on where buyers currently "sit." To frame Forest Trends activities, Forest Trends will use a simple three-tier structure for cataloguing buyers as either:

- Current buyers of ecosystem services;

- Buyers who are motivated to invest in ecosystem services, but fail to act.
- Buyers who currently lack motivation to invest in the area of ecosystem services.

Current Buyers: For current buyers of ecosystem services, Forest Trends activities will primarily focus on understanding their motivations, as well as more general lessons learned from these transactions. While many of these projects represent responses to unique local conditions and may or may not be easy to replicate, these deals provide essential insights into the nascent marketplace and several hundred examples exist today. The experiences of previous transactions provide the most valuable data on how to best catalyze and/or facilitate new transactions, for every program proposed here.

Motivated Buyers Facing Institutional Constraints: For buyers who are motivated to invest in ecosystem services, but fail to act, the market structure needs to be modified. There is little information about how many buyers have already reached the stage of category 2 – motivated but finding the market too cumbersome.

Forest Trends surveys to date indicate that the most binding constraints are lack of awareness of the role and value of ecosystem services to their business; unclear evidence of financial benefits; challenges of aggregating buyers to achieve ecosystem services at the necessary scale; a lack of internal capacity to plan and manage PES, and lack of clear, publicly-endorsed mechanisms for PES. In some programs, Forest Trends proposes to advocate for changes in guidelines and/or government policies in order to facilitate purchases. In other areas, Forest Trends plan on interacting more directly with certain sectors such as the finance and insurance sectors and the agriculture sector that would catalyze significant movement.

In the early days of building buyer interest, "hand-holding" is likely to be essential. Ideally, buyers will eventually be willing to pay for such hand-holding, and there will be sufficient expertise to provide fee-for-service support for such transactions. In the near-term, however, Forest Trends anticipates providing a significant amount of "hand-holding" to lower the transaction costs for buyers. Forest Trends would share Forest Trends learnings broadly with other NGO's and project developers through the Ecosystem Marketplace and publications. Finally, in certain situations Forest Trends will work directly with project managers to link up with buyers (part of Forest Trends Regional Katoomba activity).

Unmotivated Beneficiaries of Ecosystem Services: In the case of buyers who currently lack motivation to invest in the area of ecosystem services, the challenges are much more significant. While Forest Trends believe the market will grow fastest if Forest Trends focus on buyers in category 2 above, if early stage research demonstrates that lack of motivation is a much more serious impediment than Forest Trends believe, then Forest Trends would explore and undertake the most promising approaches to increasing buyers' motivations. For example, Forest Trends do know that the most direct strategy for motivating buyers is to develop regulatory requirements. Regulations may help reduce market barriers (for category 2 buyers above), but more fundamentally regulations create the incentives -- sometimes even requirements -- for purchasing ecosystem services.

Other more subtle and difficult approaches can be used to increase buyers' interest. Developing the analytical support for selling ecosystem services based on one of these motivations will depend on local conditions. However, each pilot offers the opportunity to build models and a body of knowledge that tests the success of building buyer interest using different techniques.

Based on analytical work and developed methods and aggregation mechanisms, Forest Trends will support the planning process for selected planned or existing projects in the Katoomba Group regional networks and the operational models for biodiversity, to better understand the motivations of potential private sector partners and to test methods and mechanisms. Using these projects as test sites and future learning sites, Forest Trends will attempt to systematize a methodology to mobilize buyers.

Table 15: Catalyzing Interest in Purchasing Ecosystem Services

MOTIVATION	APPROACH TO INCREASING MOTIVATION
Regulations (or threat of regulation in the near-term)	New or strengthened regulations at international, federal, state or local level Also: Fix problems with current regulatory policies (e.g., carbon mkts)
Improve Reputation and/or brand equity (falls under banner of "license to operate")	Increase direct pressure or engage media on issues of concern. (PES may be disconnected from issue under scrutiny, but may provide overall boost to reputation)
Reduce risk	Quantify risks by providing stronger financial data on implications of losing certain ecosystem services – persuade pvt sector to buy more environmental insurance. For example, describe risks to availability or quality of raw materials. Operating risks and ability to grow may also be negatively impacted by a decline in ecosystem services. Promote results w/ pvt sector.
Decrease operating costs	Again, quantify cost reduction opportunities for investing in ecosystem services rather than later cleanups, for example. Promote results w/ pvt sector.
Opportunity to increase sales or profits	Quantification of benefits and, if successful quantification, then promote case studies to business
Local Community Requirement (also falls under "license to operate")	Explore opportunities to include payments for ecosystem services as part of deals structured with local communities (could requirements be included in relevant permitting processes?)
Insurance policy negotiations	Influence insurers to evaluate ecosystem performance
Decrease cost of capita	Influence lenders to provide lower interest rates to co's that invest in ecosystem services (eco loans??)
Investors and Analysts	Influence investors and analysts to include evaluation of ecosystem risks (to anything from raw materials costs, operating costs to ability to expand into new markets) and the company's response to that risk

Activities and Collaborators

Experienced business analysts will consult with a large range of buyers to develop an analytic framework for mobilizing new buyers. This will be focused by sector looking at oil/gas, agriculture, transportation, mining, telecommunications, and tourism as pilot sectors. The analysis will include “sensitive points” and issues, by industry, that connect with ecosystem services, such as existing and looming regulation that could influence participation, as well as other voluntary drivers/incentives, such as reputation. The work will be carried out with a range of Forest Trends partner institutions including Capital Carbon Fund, Insight Investments and ABN AMRO.

Forest Trends will inventory different innovative models of project aggregation, drawing ideas from experience not only with PES, but also in micro-finance, technical assistance, and business development models. Forest Trends network of private sector banks (Equator Banks) and business development organizations (Ecotrust, Ecofund, Business Development Facility) will be among Forest Trends partners.

To test promising models, Forest Trends will focus on two pilot projects in Tropical America and/or East and South Africa), collaborating with the regional Katoomba networks to support the development of new specific buyers in these regions.

The analytical frameworks, guides on how to approach private sector buyers and assessments of case experience will be disseminated through the Ecosystem Marketplace, the regional/global Katoomba network and the GEF network.

ANNEX 7. AGRI-ENVIRONMENTAL MODELS: PAYING FARMERS AND FARMING COMMUNITIES FOR LANDSCAPE-SCALE BIODIVERSITY BENEFITS

Rationale

***Context*:** The Millennium Ecosystem Assessment confirmed that agricultural expansion and intensification are the main drivers of biodiversity loss and habitat change globally. Without urgent action to catalyse transition towards 'biodiversity enhancing ' agricultural practices, agriculture- biodiversity conflicts are likely to deepen and prevent achievement of the Millennium Development Goals, particularly for hunger and poverty reduction, environmental sustainability, and water and sanitation.

Payments for biodiversity conservation within agricultural landscapes can potentially play a key role within the growing portfolio of incentives designed to catalyse transition towards more sustainable agricultural management approaches by diverse land managers. A broad range of payment mechanisms already exist: Public payment schemes (e.g OECD agri-environment payments, Costa Rica's PES model, China's public payments to farmers); private biodiversity offsets; NGO and inter-governmental investments in conservation easements; farm-level certification for 'good agricultural practice' and biodiversity conservation measures. However, the extent to which existing schemes within agricultural landscapes deliver significant benefits to biodiversity conservation at landscape scale, while also sustainably enhancing the livelihoods of small-scale producers demands further attention. Such schemes must also move beyond national public finance to engage private sector buyers and local governments.

Vision: The vision of this program is that biodiversity conservation payments create sustainable incentives to support the collaborative management of diverse agriculture landscapes, to synergistically deliver benefits to biodiversity conservation, sustainable agricultural production and rural livelihoods. Realising this vision is particularly critical within regions where <u>both</u> biodiversity conservation and sustainable agricultural production are essential to the delivery of national MDG targets on poverty alleviation, food security, environmental sustainability, water, and health:
landscapes used for either low-or high-output agricultural production that are also critical for biodiversity and watershed services;
highly degraded landscapes where improved agriculture, livelihoods and biodiversity all depend on ecosystem restoration;
landscapes in and around Protected Areas where livelihoods depend upon agricultural activities.

The inherent complexity and challenges associated with delivering this vision should not be underestimated. Key components include multi-stakeholder collaboration processes to collectively develop and implement landscape management strategies; incentive mechanisms that recognise and value the conditionality of management strategies on neighbouring plot management; strategies to measure and validate collective management outcomes with respect to ecosystem service delivery, production and livelihood benefits; integrated, cross-sectoral (trans-boundary) institutions that support diverse PES mechanisms within ecoagriculture landscapes; holistic packages of support services that enable local communities and rural producers to articulate their needs, then develop and administer appropriate PES mechanisms accordingly. Overall, there needs to be an extensive base of **ecoagriculture leaders and institutional capacity** amongst diverse stakeholder groups to strategically design and implement PES within specific ecoagricultural landscapes.

Barriers: Consultations with key stakeholders, including during the International Ecoagriculture Conference, Nairobi, 2004, the 2005 Katoomba Group meeting, Uganda and the 4th Henry Wallace / CATIE conference, articulated the following key barriers to realising the vision:

1. Insufficient knowledge and documentation on managing agricultural landscapes to effectively deliver and verify ecosystem services and biodiversity conservation outcomes: Clarity over the most appropriate management strategy to deliver joint benefits to biodiversity conservation, agricultural production and rural livelihoods at a landscape scale is a pre-requisite for designing PES on the basis on outcome delivery. Landscape management planning requires an understanding of which mix of land use strategies will deliver optimal landscape-scale benefits in terms of biodiversity/ecosystem services, agricultural productivity and rural livelihoods – to multiple resource users. There are currently serious gaps in this understanding, particularly due to high levels of context-specificity with regard to agro-ecosystem and socio-economic conditions. Monitoring impacts and outcome delivery at a plot-level is in itself complex. This complexity is deeply exacerbated when consolidating outcomes and values from a diverse (production and conservation) land-uses and land users within a landscape mosaic. The design and administration of (long-term) PES strategies must be robust / adaptive enough to uphold payment consistency to sellers in the face of dynamic land-use change and fluctuating values with respect to ecosystem health, agricultural production and livelihood objectives.

2. Unsustainable financing models: The development of sustainable financing strategies for PES remains a key challenge, particularly the respective roles and potentials of public and private sector beneficiaries and buyers. The need for and role of long-term financing strategies versus short-term capital investments to overcome transition costs associated with shifts towards more sustainable production systems requires further attention. Most existing models are taken from OECD countries where financial resources worth billions of dollars are available for payments. Lessons learnt from such models need to be adapted if they are to be appropriate for developing countries where financial resources are far more limited. Within such contexts, the appropriateness of PES as a financing instrument to catalyse and support relative to other incentive mechanisms, for example certification, regulation, technical assistance, etc, also necessitates more comprehensive evaluation.

*3. Scale and scope limitations of current payment models within agricultural landscapes***:** The majority of existing PES mechanisms focus on creating incentives for individual farmers - thus fail to address the need for payments to be contingent upon co-ordinated management beyond a plot level, in recognition of the inter-dependences between the management of neighbouring plots for delivering landscape-scale outcomes. Incentives for co-ordinated approaches remain limited. There are very few initiatives explicitly addressing the challenge of creating incentives at a landscape scale, especially how to develop and co-ordinate a portfolio of incentive mechanisms which can be collectively administered to provide incentives to diverse stakeholders operating within the same landscape – contingent upon their roles and responsibilities, and the situation of their plot of land within the landscape.

4. Weak institutional support to enable multi-stakeholder collaboration for landscape scale management: There is a critical need to enable collaborative strategies among neighbouring land users to encourage strategically complementary approaches within the landscape as a whole. Multi-stakeholder engagement processes are required to enable local stakeholders to jointly understand landscape productive and biodiversity function; to effectively participate in land-use decisions and negotiate management agreements that reconcile multiple objectives with respect to ecology, livelihood and productivity goals; and design equitable compensation / incentive payment schemes. While there is consensus on the importance of participatory negotiation processes, there are relatively few 'best practice' examples documented. Strengthening cross-sectoral institutional frameworks and support services to enable meaningful local stakeholder participation in landscape planning and management is a key challenge.

Baseline: Demand for PES within agricultural landscapes is primarily being driven by public investment in agri-environmental payments within developed countries, and conservation and / or carbon sequestration motivations of international NGOs and inter-governmental agencies within developing countries. Transition towards multi-functional agricultural production has triggered a proliferation of national agri-environmental payment schemes within OECD countries, most recently within Eastern Europe. In developing countries, the GEF and World Bank have been key financers of biodiversity payment initiatives, particularly through the BioCarbon and Prototype Carbon funds. Innovation has been particularly rich with the Amazon Basin, Mesoamerican and Eastern / Southern Africa. Examples include ongoing research on PES as a means of limiting deforestation within agricultural frontiers by Woods' Hole Research Institute and partners within Brazil; the Regional Integrated Silvopastoral Ecosystem Management Project (RISEMP) to encourage more sustainable silovopastoral practices in degraded pastures within Central and South America; RUPES (Rewarding upland farmers for environmental services) action research within Africa and Asia.

The Learning Networks will also invite the participation of UNDP GEF biodiversity projects in Central and Eastern Europe that are dealing with agri-environmental payments. Along with numerous other initiatives in Europe (such as SENSOR), these are actively involved in promoting innovations to enhance biodiversity benefits and can share lessons learned with developing country network members.

Most direct incentives remain focused on encouraging the set aside of agricultural land for biodiversity conservation. Thus, significant opportunities to enhance ecosystem service delivery within areas under agricultural production and /or the transition to ecoagriculture management are currently being lost. Debate on the role, design and impact of ongoing agri-environmental payment schemes within Europe and North. America has been considerable. However, the extent to which lessons learnt from these public payment schemes can inform strategy development in developing country contexts, particularly as a means of delivering livelihood benefits to small-scale producers, necessitates much greater attention.

Outcomes and Outputs

This program seeks to enhance operational capacity to design, establish and implement effective payments for biodiversity conservation within ecoagriculture landscapes on a scale sufficient to have a meaningful impact on the conservation of biodiversity and ecosystem services

Output 1: International Learning Network on PES in Ecoagriculture Landscapes developed and supporting innovators

Rationale: The International Learning Network will consolidate and mobilize international expertise on developing landscape-scale agri-environmental payment schemes, to support innovators working to strengthen or develop new PES initiatives within agricultural landscapes. In particular, the network will provide focused support to innovators within tropical American and eastern / south Africa, enabling them to benefit from experience and lessons learnt from ongoing activities worldwide.

Process: The network will draw upon the diverse capacity and outreach of existing Ecoagriculture Partners and Katoomba Group networks, currently operating internationally and regionally. International experience/capacity will be reviewed with respect to existing landscape-scale agri-environmental payment models and key actors. The review will consolidate information resources, training materials, case studies, 'best practice guidelines' and lessons learnt. Materials will document

experience from landscape-specific ecoagriculture management strategies within dynamic environmental, socio-political contexts; multi-stakeholder collaboration processes to undertake participatory landscape-scale analysis, management and outcome assessment; public and private financing opportunities to support landscape-scale action within diverse agricultural production systems. Processes will be designed to strengthen knowledge exchange between existing agri-environment PES projects, including public programmes within OECD countries, Australian and N. America, as well as initiatives supported by GEF, World Bank, UNDP, UNEP, international and national NGOs and the food industry. The program will work with FAO on evaluating when and how PES can offer an appropriate incentive mechanism within diverse agro-ecosystem and socio-economic contexts. Lessons learned will be shared among network members internationally, particularly within and between tropical American and eastern / south Africa. Mechanisms will include knowledge-exchange workshops (most during KG meetings), cross-site visits, video-taping group experiences and the translation of useful information into local languages.

Output 2: Improved ecoagriculture payment schemes designed and piloted in two landscapes in Eastern Africa and tropical America

Rationale: Well-documented operational models are needed to demonstrate the viability of new agri-environmental models at landscape scale. Such models must be developed or adapted in light of a critical assessment of the role of PES relative to other incentive measures, i.e. certification, regulation, technical assistance, etc). The project will work in two high-biodiversity-value landscapes, to strengthen institutional and individual capacity to collaboratively design and manage agri-environment PES, Pilot sites will be located in areas of high biodiversity value and high agricultural pressure, selected on the basis of strong ecoagriculture foundations already in place – management approaches, stakeholder collaboration, well established regional networks / active EP and Katoomba Group partners, coupled with expressed demand from local stakeholders to trial or strengthen ecoagriculture payment schemes. One landscape will focus on a public payment scheme; the other, a private one.

Process: Focussed support will be provided to PES innovators within two specific agricultural landscapes. Landscape selection will be conducted through an initial scoping exercise and baseline assessment that will include mapping "ecoagriculture hotspots" consultations with regional and international Ecoagriculture Partners' and Katoomba Group networks. Landscape-scale activities will be founded upon on-going activities of local stakeholders (community-based organizations, NGOs, private sector, researchers, local policy makers etc). Forest Trends, Ecoagriculture Partners and the International Learning Network members (Outcome 1) will offer support by making available additional (international) expertise, strengthening capacity and catalysing inter-institutional learning, cross-site fertilisation and coordination. The project will work with (or convene) a multi-stakeholder landscape-level working group to conduct an initial landscape-scale assessment of ecosystem service assets, flows, barriers, goals, outcome measures and sustainable financing options. Each landscape working group will take a leadership role in documenting processes employed, challenges and opportunities experienced, and 'lessons learnt' – to be disseminated through the Learning network.

Output 3: New approaches to ecoagriculture payments informing decision-making among national policy, farmer and/or industry groups

Rationale: To scale up impacts beyond the landscapes and learning networks, the program will raise awareness about new agri-environmental models among potential market participants and policy advocates. Key audiences will include international and national policy makers; international conservation NGOs; farmers and rural communities; food industry stakeholders and other potential private sector buyers.

Process: The program will analyse strategic opportunities for scaling-up new approaches; identify actors that need to be engaged to enable scale-up; plan and implement a communication strategy to enhance awareness and engagement of these key actors. Communication materials highlighting implications and recommendations will be specifically tailored to meet distinct information needs of different target audiences. Policy dialogues will be convened with potential buyers and sellers of ecosystem services, including the food industry and the farming community etc. Policy recommendations and briefing notes will be disseminated internationally, through key policy fora, i.e. CBD, FAO, MDG review processes etc, regionally within East/ South African and tropical America, and nationally within pilot site countries.

ANNEX 8: BBOP: BUSINESS AND BIODIVERSITY OFFSET MODELS

Rationale:

The context of the problem

Many infrastructure projects have a significant, adverse, direct impact on biodiversity and livelihoods by converting habitat and polluting soil, water and air. These projects often attract people to the area for jobs, trade, and local amenities. Such indirect impacts on biodiversity can be much greater than the company's direct footprint. Environmental impact assessments and corporate environmental management systems rarely focus on threats to biodiversity, but tend to seek engineering solutions to reduce impact and emissions. Companies may partly rehabilitate only the project site, leaving the surrounding area that the project has affected degraded. The restored site often has little conservation or biodiversity value. The poor environmental, socio-economic and health legacies of such sites have damaged biodiversity and local communities' lives. They have also created liabilities for and harmed the reputation of companies, often for decades after an operation ends. Some companies are now aware that biodiversity offsets could decrease broader threats to biodiversity for costs similar to rehabilitating sites. Offsets can both rehabilitate sites and provide significant and enduring conservation results at the landscape sale. Offsets can also address local communities' biodiversity-related livelihood priorities, thus tackling a common cause of local biodiversity loss and also securing the social license to operate that companies prize. The BBOP will: design and implement at least six pilot projects to show that offsets work; develop, test and disseminate best practice on biodiversity offsets, using two partnerships (International Advisory Committee and Learning Network); and catalyze the policy changes needed to stimulate and support broad use of biodiversity offsets by companies and governments world-wide.

The vision for biodiversity offsets, demand and precedent

The vision of the Business and Biodiversity Offset Program (BBOP) is that biodiversity offsets will become standard practice for companies and public developers that have a significant impact on biodiversity. While biodiversity offsets are a new mechanism to conserve biodiversity, the BBOP is building on thirty years of relevant technical experience with wetland and conservation banking in the US and on compensatory conservation in the European Union, Brazil and elsewhere. Some companies have sophisticated approaches to mitigating loss of biodiversity and rehabilitating former operating sites as part of their environmental management. Voluntary, board-level commitments by individual companies, growing research in the field by industry associations, multi-stakeholder groups, investors, conservation groups and governments, also demonstrate growing interest in biodiversity offsets.

Conservation impact

Biodiversity offsets have the potential to achieve significantly more, better and more cost-effective conservation outcomes than currently result from infrastructure projects which convert habitat. Biodiversity offsets can become a standard tool for businesses in a broad range of economic sectors to lower risk and manage projects. Offsets can help companies that impact biodiversity to secure legal concessions and the social license to operate and to manage their costs and liabilities. The immediate impact of the BBOP is to ensure that major infrastructure projects in six different high-biodiversity areas

cause no loss of biodiversity. Accomplishing this will require addressing threats to biodiversity at offset sites, to ensure the offsets succeed. Forest Trends will magnify the impacts beyond the specific conservation outcomes at pilot sites by developing and disseminating best practices and guidance, and by stimulating systemic change as private and public developers recognize and use biodiversity offsets as a regular business practice.

Barriers:

A recent survey of 50 individuals from companies, governments and conservation groups pointed to key barriers which have prevented biodiversity offsets from expanding on a globally significant scale. These barriers include:

Stakeholders do not share dialogue and vocabulary

Biodiversity offsets raise many scientific, social, political, legal and economic questions to which there are no easy answers. More open and informed debate is needed to develop a shared vocabulary on offsets and to explore its various aspects. Dialogue is also needed to articulate the concept, to share information and experience and to assess its political, scientific, and commercial feasibility. This would help to address the evident suspicion and distrust among some stakeholders that could become a barrier to further development of the approach.

Businesses and potential conservation partners lack practical experience

Practical experience through pilot projects demonstrating net benefits to biodiversity and livelihoods and case studies documenting the design, implementation, and evaluation of biodiversity offsets, is an essential input into the debate. There is no other program to date that has supported a portfolio of pilot projects that seek to demonstrably improve the status of biodiversity through biodiversity offsets. Nor are there many clear and comprehensive case studies on specific projects to offset biodiversity damage.

There are no agreed guidelines and methodologies

For companies to implement biodiversity offsets, they need guidance on how to make them work. Guidelines and methodologies are needed to articulate the concepts involved in biodiversity offsets. In particular, there is little work to date on the issue of "currency:" the basis for measuring the loss of biodiversity caused at a development site and the conservation outcomes needed to offset it elsewhere. Companies have expressed a need for transparent guidelines as well as consistent and transparent measures and indicators for achieving "no net loss" of biodiversity that will satisfy the needs of stakeholders and be workable in practice.

BBOP Approach:

The three principal objectives of BBOP are to:

- Create six successful biodiversity offset pilot projects.
- Develop, test and disseminate best practices and guidance through new cross-sectoral partnerships.
- Catalyze systemic change that will encourage private and public developers to use biodiversity offsets.

Objective 1: Create a portfolio of successful biodiversity offset pilot projects

Rationale: Industry needs to see how biodiversity offsets will work in different circumstances to learn how different sectors, impacts, scales, regions and policy environments affect their success. Hence, Forest Trends will establish at least six offset pilot projects to demonstrate how firms can ensure that government-approved infrastructure projects cause no net loss of biodiversity. Each pilot partnership will include at least the private or public-sector developer, government agencies (national and/or local,) and one or more domestic NGO, including those that work with communities. The pilot activities will involve and benefit local communities, local NGOs and universities. An Advisory Committee of international experts will support the pilot partnerships. This committee will help design each pilot offset, ensure a consistent approach for pilots, and periodically gather all pilot partners to share experiences and lessons.

Process: Each infrastructure project in this program will impact an area of high biodiversity value. The activities of each biodiversity offset will be in areas with biodiversity value at least as high as where the impacts will occur. The partners for each pilot will first quantify the impact on biodiversity of the proposed infrastructure and analyze the threats to the biodiversity in the offset region. This analysis will be part of the baseline and trends assessments needed to ensure "no net loss" of biodiversity. Together, the partners will identify options for biodiversity offset conservation activities for each pilot, weighing their potential to contribute to national conservation priorities and to meet local communities' needs. The partners and stakeholders will select the location, nature and scale of the offset. Either the developer, a government agency, NGO, or a firm under contract to the developer could actually implement the activities, collaborating with stakeholders. The current pilot portfolio includes a $3B oil and gas platform in the Middle East with Shell, an open pit gold mine in Eastern Ghana with Newmont Mining, the construction of an ecotourism lodge in the Mabira forest, Uganda with Africa Awakenings, and the construction of 56.3 km power line with the Federal Electricity Commission in Mexico.

Objective 2- Develop, test and disseminate best practices and guidance for designing and implementing biodiversity offsets

Rationale: BBOP aims to develop guidance on implementing biodiversity offsets and make it widely available to industry, policy makers, development agencies, academics, and others. The BBOP will provide the methodology through a Toolkit. Companies embarking on biodiversity offsets have also asked for a multi-stakeholder partnership of experts to help design and implement biodiversity offsets to provide scientific credibility, practicality, and political support for the approach. The BBOP has established an Expert Advisory Committee and a Learning Network to meet this need.

Members of the Expert Advisory Committee include: Birdlife International, Conservation International, Fauna and Flora International, Forest Trends, Insight Investment, IUCN-The World Conservation Union, The Biodiversity Neutral Initiative, The London Zoological Society, The Ministry of Ecology and Sustainable Development- France, The National Ecology Institute, Mexico, The National Environmental Management Authority- Uganda, The Nature Conservancy, The Royal Botanic Gardens- Kew, The South African National Biodiversity Institute, The United Nations Development Program (Footprint Neutral Initiative), The US Fish and Wildlife Service, Wageningen University-Netherlands

The Learning Network currently includes: ABN-Amro; The International Petroleum Industry Environmental Conservation Association; The International Council on Mining and Metals; The Katoomba Group (includes over 200 leading international experts from industry, research institutions, finance, and environmental NGOs dedicated to advancing markets for ecosystem services); The Secretariat of the Convention on Biological Diversity; The World Bank; The World Bank Institute; BG Group; Rio Tinto; World Resources Institute; World Wildlife Fund.

Process: The BBOP has assembled an Expert Advisory Committee, consisting of experts from companies in different sectors, and from government departments, taxonomic, conservation, research and academic organizations world-wide. These experts are from disciplines that underpin biodiversity offsets, including: conservation methodologies and metrics; bioregional and landscape scale planning; systematics and biodiversity measurement and monitoring; risk, project and biodiversity management in business; and environmental economics. Many have already helped design and implement biodiversity offsets and associated public policy. This group will provide technical support to the pilots and build their capacity in biodiversity offsets; contribute to the Toolkit; and participate in training events. They will participate in work with national and intergovernmental policy-makers on biodiversity offsets.

Forest Trends are also establishing a Learning Network to enrol a broad network of companies, industry associations and government representatives in learning about and promoting biodiversity offsets. Learning Network members are from organizations outside the pilot project partnerships and the Advisory Committee. Members will receive regular updates from the BBOP and have access to an interactive website. The Learning Network members and BBOP partners will regularly discuss scientific, technical and policy questions through the listserv and interactive website.

Objective 3- Stimulate systemic change by encouraging private and public developers to use biodiversity offset:

Rationale: Using biodiversity offsets to secure more and better conservation at all major public and private development sites will be a major systemic change for industries and governments, with enormous potential to conserve biodiversity. Forest Trends aim to scale-up program impacts well beyond the proposed pilot sites. For this to happen, companies and governments need to change policies and practices. Companies must commit to conduct biodiversity offsets at sites where they have a significant impact on biodiversity. Governments must use existing policies or introduce new ones to require or encourage developers to offset their impacts on biodiversity. The BBOP will catalyze these systemic changes by working with companies and industry associations and with policy makers in national government and international policy fora.

Process: BBOP partners (including investors, banks, and NGOs that interact with companies) will work with individual companies, industry associations and professional groups to persuade them to adopt biodiversity offsets as a routine part of business. This will involve presenting the business case for biodiversity offsets and BBOP's experience and results. Forest Trends will also promote biodiversity offsets with key policy-makers, both in the countries and regions of the pilot projects and with inter-governmental bodies.

ANNEX 9. BUSINESS DEVELOPMENT FACILITY: FOREST PES ENTERPRISE MODELS

Rationale for the Business Development Facility: Changing the value of forests through ecosystem services

Context

Forest conversion to other land use options is still rife in most developing countries. In addition, the forestry sector in most of these countries is still largely characterized by unsustainable forest operators who have not yet received certification. The WWF/World Bank target of 200 million hectares under independent certification by 2005 is far behind.

The markets for ecosystem services have been immature in most developing countries, and hence there has been no perceived value of these products and services. To date, forest operators have focused on their core business of harvesting and selling timber with no/limited view of the commercial and environmental value of their land assets and trees, other than timber, and the impact of their business on biodiversity. The value to local communities and local markets has also often been undervalued and overlooked. Hence, cut timber has historically been seen as the only real value of forest assets, and still is in most of these markets.

The demand for alternative land use and the liquidation value of forests is high, creating strong economic incentive for conversion. Financial markets reward short-term over long-term returns which puts additional pressure on the returns required from forestry which is resulting in unsustainable harvesting practices, or land conversion to other land use methods (e.g. Soya bean farming in Brazil). Certification has provided a significant additional cost to most forest operators as it requires fundamental changes in harvesting techniques and equipment, volume and species selection (for natural forest operations), conservation areas, forest management plans (planning, systems, and inventory databases), in addition to the actual cost of certification and validation. The approval processes can also be complex and conflicting in a number of countries. This has resulted in a number of operators struggling to make adequate returns, in particular in countries with a high risk-free rate of return, and hence shying away from certification.

Vision

Forest Trends' Business Development Facility (BDF) works to enhance the value of forests by assisting forest operators develop and commercialize ecosystem products and services. The goal of the BDF is to demonstrate that ecosystem services and products can enhance the financial returns for a forest operator, as well as provide a range of other benefits such as: biodiversity preservation, benefits for and improved relations with local community and other stakeholders, land appreciation, asset protection, risk reduction and positive public relations. This approach assists forest operators' move from a 'single-asset approach' where cut timber is seen as the only real value of forests, to a 'multiple-asset approach' that diversifies revenues streams by capitalizing on ecosystem services and products that generate higher real returns on the forest asset. The multiple asset approach assists in making forestry land use more profitable to compete with alternative land use such as agriculture (e.g. Soya bean farming in Brazil), grazing, etc. to prevent conversion of land use. The multiple asset approach also assists in setting and promoting new

standards for sustainable forest management and in attracting capital from more long-term sustainable investors into forestry in developing and emerging economies.

The objective of the BDF is therefore to develop a portfolio of forest-based ecosystem services and non-timber forest products businesses with forest operators to demonstrate the business case that sustainable forestry, with multiple revenue streams from ecosystem services in addition to timber, can generate higher returns and increase long-term land value whilst preserving bio-diversity. The BDF currently has two pilot projects in South Africa and the Brazilian Amazon. The GEF portion of BDF funding will focus on PES mechanisms and projects.

BDF Operations

A crucial component of the BDF is the day to day, on the ground assistance that project staff provides to the forest enterprise. For two years the BDF project managers are an integral part of the companies. Most importantly, the BDF provides the dedicated management of the project that is required for it to succeed, to keep the project on schedule, and to keep the staff motivated. The BDF also play a crucial role in identifying market opportunities, and negotiating commercial contacts between commercial partners and the forest operator. The BDF arranges for feasibility studies that engage local and international specialists to conduct technical and market assessments. Knowing who to engage for expertise and then helping the forest make sense of their findings is another valuable component of the BDF involvement.

The BDF also teaches the forest operator how to measure the financial contribution that ecosystem services will make to their bottom line. This is of great importance as current methods of valuation do not acknowledge and assess the contribution of alternative land uses. It is essential that the industry is able to compute this value and communicate it to their stakeholders including their board of directors. The BDF plays another important role by serving as a liaison between the forest operator and their board of directors. The BDF staff is characterized by their business and client management experience. Their ability to negotiate the important aspects of the new business model and secure support from the board of directors is key to the success of the project, and the overall impact of the BDF initiative. Throughout the two years that the BDF staff is working on the ground with the forest operations they are equipping the employees with the tools they will need to permanently integrate the ecosystem services into their long range business model. One of the most important tools is the ability to identify and value ecosystem services and to be able to make decisions based on this more sophisticated type of business valuation.

The BDF also works to develop new distribution channels and stimulate new market demand for PES by working with users, potential buyers and regulators.

Outputs and Activities

Output 1. New PES in forest enterprises designed and implemented with project support

BDF will build a portfolio of forestry companies and assist them to successfully diversify into ecosystem services businesses. The GEF funding will assist in supporting the efforts of building a portfolio of prototypes. The focus will be on Africa with potential upcoming projects in Mozambique, Congo Brazzaville, South Africa, and other southern and central African countries. Forest Trends will also continue Forest Trends work in the Amazon basin. The success of prototype projects will be assessed and reported by analysing the contribution that ecosystem services has on revenue, profit, profit margin and return on assets on these businesses (this is also a new way of assessing and presenting the financial

results of forestry companies). Increased access to capital and any improvements in community relations will also be monitored and documented.

Sharing the successes of the BDF portfolio is one of the cornerstones of the facility's business model. Cultivating a wide audience will be necessary for significant change. Through the dissemination of lessons learned and value created, the BDF plans to target the following influential groups:

1) The Investment Community - particularly companies or funds that focus on making socially and environmentally responsibly investments. Teaching the investment community and the financial markets to value ecosystem services and sustainable management of land will benefit Forest Trends global environment and encourage replication of BDF type business models.

2)The Forestry Industry - The BDF aims to revolutionize the forestry sector by demonstrating that PES is a smart and profitable business decision and that to stay competitive the 21st century, all companies will need to adopt a diversified and sustainable business model. If companies are able to reduce costs while improving their profit margins through developing ecosystem services and products with the BDF using the multiple-asset approach, this is likely to have a ripple effect and eventually have an impact globally. The sheer fact that ecosystem services products have a relatively high profit margin because of a low cost structure makes them an attractive investment for companies. But to date, this value has not been demonstrated on a wide scale or across a large audience. Lessons-learned documents that capture the value of diversification combined with a toolkit (described below) will encourage a class of entrepreneurialism that on a grand scale has the ability to significantly positively affect Forest Trends global conservation value.

3) NGO's and communities – The benefits of developing PES will be shared with NGOs and capacity building organizations, and communities. Some of the ecosystem services will require the involvement of community members including indigenous groups who have historical and intimate knowledge of the land. These groups who appreciate that sustainable land management practices can have positive implications for the economic well being of local communities will be motivated to support the BDF through their own work.

Output 2. Cases documented and lessons synthesized and disseminated with a toolkit on how to set up PES in forest enterprises

Develop a long-term strategy to institutionalize business support services to integrate PES into sustainable forestry enterprises worldwide. A toolkit that can be used by forest operators and land owners to assess and develop these products and services will also be part of this project deliverable. The toolkit will be posted on the marketplace and marketed at Forest Trends, Katoomba and other events. BDF will develop a network of advisors that will help analyze and evaluate investment criteria and obstacles for tropical and emerging markets. BDF will assemble and synthesize lessons learned from the active projects. The success and failures of the forest investments and funds and the challenges of developing ecosystem services will be reviewed so that these finding can be made available to the forestry and sustainable development community.

The success and failures of the asset diversification undertakings will be reviewed and analyzed so that these findings can be made available to the forestry, finance, and sustainable development community. Assembling and synthesizing lessons learned from the active projects is a priority as it a means for communicating the value of the model, encouraging additional investment, and encouraging replication. Most importantly, the project prototypes provide a tangible learning vehicle. Sharing the prototypes are the best way to demonstrate the value of the multiple asset approach. Lessons learned will be gleaned through in depth analysis and review with all of the project participants including the forest operators, the

commercial partners, the community stakeholders and the BDF representatives. In addition to individual project findings, common themes that emerge among the various project will also be explored and shared. Lessons learned on process, outcomes and overall contribution to environmental and economic sustainability will be the most important to extract, but important conclusions and findings from each phase of the project will be analyzed. Qualitative as well as quantitative contributions will be measured. For example, in addition to profit margins, and return on assets and investments, access to capital will be monitored as well as public image, and relations with stakeholders including community groups and shareholders and the board of directors. The extraction of lessons learned will be an ongoing endeavour and should enable continuous improvement and utmost relevance of the findings. Measurable outcomes may evolve over time as the investment and forestry industries become more involved in the dialogue. As they being to contemplate what their priorities are with respect to project investments and model and prototype adoption, the BDF will address these concerns. A new market is being created and encouraging feedback and input from the desired market participants is crucial. Sharing lessons learned is one way of catalyzing this dialogue.

Output 3. Pipeline developed for investment in PES in forest enterprises

The Business Development Facility will identify and develop a project pipeline to expand its portfolio of ecosystem services projects with the GEF grant. The focus will be on building the pipeline in Africa first, and then the Amazon basin. The BDF will work in collaboration with various institutions, including the Smartwood Network, the Bio-Carbon Fund, and the network of the Tropical Forest Trust, and Katoomba, participants will be selected based on their replicability, scalability, and demonstration of new business models in critical forest areas. The BDF will focus on the following revenue diversification opportunities: Revenue generation from credit programs including watershed enhancement, carbon and methane avoidance, and conservation; Revenue from sustainable recreation activities including eco-tourism; and Revenue from the sale of extractives including botanicals, essential oils and orchids. The BDF also encourages cost savings activities from the implementation of in-house renewable energy systems which in turn can create carbon and methane avoidance credits. This example underscores the BDF's desire to fundamentally change the way a forest operation is run and to contribute to their efficiency and profitably. A bio fuels renewable energy generation system that is inexpensive to operate, and that produces revenues through credit offset programs is incredibly efficient and is making a direct positive impact on the bottom line. What the BDF aims to do is create opportunities that are regionally and operationally appropriate. As the client portfolio grows, so will the types of diversification activities that the BDF becomes experienced with.

Local, Regional and Global Impacts

In addition to increasing profitability through diversifying into ecosystem services - watershed restoration, carbon emission reductions (with biodiversity benefits), and biodiversity offsets - these services produce local, regional and global benefits environmental benefits. The approach also stipulates sustainable land use and certification, hence it is assisting in increasing the number of forest operators who operate sustainably and pursue certification. The additional revenue and profit contribution from ecosystem services assist, in part, in paying for the cost of being certified.

The fundamental benefits of BDF projects on biodiversity and conservation are:

- Less pressure exerted on forests for harvesting timber ➢ more standing forests, or for plantations
- less hectares under plantation.
- Increase in the value of standing forests ➢ less pressure to convert forests to other competing land-use options.

- Promotion of and conversion to sustainable forestry/certification ➢ more hectares under sustainable forest management.
- Local, regional and global environmental benefits from ecosystem services developed
- Emission reductions, biodiversity preservation and restoration, watershed protection and restoration.

Economic benefits include new models for forestry companies on how to manage their business and economic growth and investment in developing/emerging economies – for every forestry operator the BDF works with Forest Trends generate a number of investment opportunities:

- New businesses and business opportunities, e.g. reforestation with botanicals extraction business, biofuel renewable energy plant with (carbon credits from emission reductions), eco-tourism business opportunities etc.
- Opportunities to invest in the underlying forest assets which will attract and channel funding into sustainable forestry in the tropics/developing countries
- New innovative funding mechanisms and funding through these e.g. debt financing secured by pre-sold carbon credits for purchasing additional land for sustainable forest management.

Social benefits of BDF include:

- Educating the forestry community about the biodiversity value of their assets and how important these are to preserve, as well as assisting in restoration of biodiversity, e.g. the reforestation of indigenous species in South Africa with high value botanical species for community use (with Global Forest Products, a commercial timber company);
- Training of communities in eco-business management, e.g., sustainable botanicals extraction and primary processing, employment,
- Social developments, such as support for Black Economic Empowerment (equity) component in the companies in South Africa.

These projects should have a fundamental impact on the way forest operations are managed in developing and emerging economies by moving from focusing solely on timber for the timber & timber products markets, to focusing on multiple resource use. This will assist forest operators justify the path to sustainable forest management and certification as the cost of this can be offset through additional revenue streams from ecosystem services. The intention is that the multiple land use model will be marketed and adopted as the new sustainable forestry model. This should also result in increased investment into forestry in developing economies by sustainable investors.

ANNEX 10. PES MODELS FOR COASTAL FISHERY AND FLOOD PROTECTION

Rationale:

The Problem Context

Coastal marine environments are among the most productive and threatened ecological systems on earth. Many have talked about the need for innovative financing of coastal ecosystem service protection through payment for ecosystem services (PES) mechanisms; and the socio-political demand for focused attention to coastal conservation has risen substantially in the wake of recent world events. For instance, following the catastrophic tsunami in Southeast Asia and hurricane flooding in the Gulf Coast of Mexico economic internalization of the link between protected coastal ecosystems and flood prevention/storm buffering capacity was revealed to be wholly inadequate despite the clear evidence that healthy coastal ecosystems can provide valuable flood mitigation services to people. This recent spate of natural coastal disasters has clearly underscored the economic costs that come with inadequate investment in natural ecosystems.

Currently, however, many of the social and economic values associated with fully functioning coastal systems such as flood protection remain unaccounted for in capital market transactions. As a result, the prospective harnessing of market institutions for more effective coastal ecosystem service protection is not well understood, despite the intense focus of the Millennium Ecosystem Assessment on the value of coastal services for human well-being. To uncover and truly understand the potential of these innovative financing mechanisms, Forest Trends need robust and targeted analysis of coastal services and perceptions of their value, of actors - including potential buyers and sellers, and of the property rights frameworks in coastal areas.

Proposed Coastal PES Project and the GEF Component

Forest Trends, as well as the Ecosystem Marketplace, have committed to extending the scope of ecosystem services analysis and development to coastal services. The goal will be to provide the supportive framework around which a small subset of pilot PES can be developed in Eastern and Southern Africa and tropical America. The GEF component on coastal PES will enable the first step in a process that will bring PES to maturity in the coastal zone. This project will develop critical analytical frameworks and design assessment methods, test these in two sites where PES is incipient or promising, and establish a strong supportive network of key stakeholder interests to develop new PES systems for coastal environments. Baseline information and supportive network provided through this project can be matched with identified public and private interests to more effectively facilitate the development of global ecosystem markets and payment schemes which are both financially viable and effective in promoting conservation in the coastal zone.

The GEF project will analyze nascent initiatives that have experimented with payments for coastal ecosystem services and identify potential buyers and sellers. The project will identify promising opportunities for coastal ecosystem protection for flood control and fisheries. The project will also lay the groundwork for implementing or improving pilot coastal PES projects. The project's outreach efforts will include targeted publications for key economic sectors, materials for the Ecosystem Marketplace to cover coastal services, scientific publications aimed at coastal science and management associations, and

awareness-raising in the lay media. In addition, the project will bridge sectors and disciplines in new ways by establishing a functional network of practitioners utilizing innovative financing mechanisms.

Coastal Conservation Impact

Coastal PES systems and associated market offsets have the potential to achieve significantly better and more cost-effective conservation outcomes than currently result from projects which seek to isolate and protect coastal areas from human encroachment. Coastal zones are by their very nature dynamic and ever changing. As a result, the establishment of protected zones in a sea of ecological and social change is not inherently effective. By clarifying the linkages between ecological function, ecosystem service delivery, and market incentives, PES systems and conservation offsets can become a standard tool for humans operating at a broad range of economic sectors to lower risk and manage projects. For example, coastal development offsets can help companies that impact coastal biodiversity to secure legal concessions and the social license to operate and to manage their costs and liabilities. The immediate impact of the Coastal Systems Payment for Ecosystem Services Project will be to ensure that new approaches will be explored in a variety of coastal settings. Forest Trends will magnify the impacts beyond the specific conservation outcomes at two test sites by developing and disseminating guidelines on PES project identification and planning assessment, and by stimulating systemic change as private and public developers recognize and use biodiversity offsets as a regular business practice.

Barriers

Unlike their counterparts in NOx and CO2 markets, wetland mitigation banking, or biodiversity offsets, the use of market mechanisms for coastal systems is not yet a developed concept or standard practice. The social, political and economic institutions for costal PES systems exist only in pre-formative stages and will need substantial, focused effort to create and sustain them. The project will need to address several fundamental questions concerning the form and function of prospective market institutions for coastal ecosystem services.

Coastal ecological systems are highly complex and exist at the interface of terrestrial and oceanic systems and thus, often suffer from the classic ‘tragedy of the commons’ dilemma. They are generally poorly understood, undervalued, and largely at risk from coastal development and the indirect impacts that arise from land use in connected watersheds. Lack of clear ownership and fuzzy jurisdictions of management authorities has kept back the sorts of market solutions that have been successfully applied in terrestrial conservation. Finally, stakeholders have been hard to identify, creating special challenges in assembling and sustaining even those stakeholders with common interests.

Outputs and Approach

To address these questions, the coastal PES program will need to start from the beginning and assemble the best available empirical evidence and supportive information to facilitate the development of sustainable markets. The GEF component aims to establish the basic foundations for development, through separate funding, of a learning network of pilot coastal PES projects.

Output 1: Develop a Conceptual Framework and Decision Support Tool for Fishery and Flood Protection PES

Given that the concept of applying PES systems and market mechanisms to coastal systems is still in a nascent stage, significant background analytical work needs to be done in order to create a sustainable basis for implementation. The project team will assemble materials to document alternatives for implementation of Coastal PES systems, and provide a neutral source of information relevant to

developing national and international policy and legal frameworks for coastal ecosystem market development. To support the project, a formal executive working group and informal learning group will be formed and are expected to evolve into the institutional capacity needed to carry forward well-developed markets for coastal ecosystem services.

Process: Early in this effort, the project team will assemble an analytical document that summarizes the best available information on coastal PES systems and identifies the most promising opportunities for implementation. This analysis is critical for rigorous identification of potential barriers as well as key stakeholders that will serve as a foundation for moving forward with PES systems. The document will include a matrix summarizing potential actors and market mechanisms, demonstrations, and generalizable scenarios for developing full-fledged markets. This project will develop a set of analytical tools for assessing the feasibility and key design parameters for PES for coastal fishery and flood protection. An inter-disciplinary team with coastal scientific, economic and business expertise will adapt existing assessment tools for coastal ecosystem conservation planning and PES planning from other sectors, to develop a draft toolkit.

To provide input to these activities, the team will pull together a working group of experts and stakeholders representing diverse expertise and backgrounds to serve as a formal review committee for the implementation of Coastal PES systems. This small working group, comprised of 10-12 individuals will work with the project team to identify potential pilot sites and market mechanisms that will be targeted in output 2

Output 2. Feasibility Assessment for Coastal PES in Two Landscapes

The draft analytical framework and assessment tools will be tested in two sites in Eastern and Southern Africa and/or tropical America, one for coastal fishery protection and the other for flood protection. The analyses will be implemented with input from multi-stakeholder group in each location. Based on results from the assessment, pilot PES schemes will later be developed through co-financing.

Process: Candidate sites for coastal PES will be identified by the Katoomba Group regional networks in East and Southern Africa and Tropical America, based on criteria identified during preparation of Output 1. These will be evaluated and two sites selected, one for flood protection and one for fishery protection. The project team will collaborate with Katoomba Group members working in the coastal areas and with local multi-stakeholder groups already existing. Results will be presented for feedback to these groups as well as the Advisory Group and Katoomba Groups.

Output 3. Resource Materials on Coastal PES Compiled and Disseminated

The team and Advisory Group will identify and compile resource materials on coastal PES and the revised analytical framework and feasibility assessment tools, to be disseminated through the Ecosystem Marketplace and the specialist listservs, newsletters and publications for diverse stakeholder groups (including beneficiaries) involved in coastal ecosystem management.

Process: Materials will be collected during the process of literature review and Advisory Group consultations. The Ecosystem Marketplace staff will edit and organize materials for global dissemination. Materials will also be distributed through selected business, conservation, government and other sectoral mechanisms.

ANNEX 11. IMPACT MEASUREMENT TEMPLATE

Key Impact Indicator	Target (Year 4)	Means of Verification	Sampling frequency	Location
Number of new PES projects developed with new or improved design	8	National inventories	Beginning and end of project	Tropical America, East and S. Africa
Number of projects with new biodiversity PES models	15	National inventories	Beginning and end of project	
Number of established PES projects with improved biodiversity outcomes	8	National inventories	Beginning and end of project	"
Volume of PES operating to which the project has made a critical contribution	$50 million	Project records	Mid-term and end of project	"
Number of hectares of land covered by PES with clear biodiversity impact in project-related programs	100% increase in baseline of individual collaboration PES projects	Project records	Annual	"
Number of countries with key institutional capacity for strategic analysis, planning and implementation of PES schemes among key stakeholder groups	8 countries	National inventories	Beginning and end of project	"
Government, MEA, NGO and business association policies will reflect project PES recommendations	2 international policies, 3 country policies 3 corporate policies 2 association policies 2 NGO policies	Policy documents	Mid-term and end of project	" Global UN MEAs
Number of individuals and institutions, by type, subscribing to Ecosystem Marketplace services	5000 subscribers, 75,000 users	Marketplace tracking software	Annual	Global

ANNEX 12A. PROJECT BASELINE

Project Baseline:

Global, Regional and National Initiatives Building Institutional Foundations for PES and Developing New Institutional Models for Biodiversity PES

Outcome	Baseline 2006-10*	Notes	Assumptions **
1. Global PES Market Information Services			Information for users to engage in market transactions and investments (not just how markets work or valuation)
FLOWS	100,000	Water PES website, based in U.S.	$50,000/yr for 2 years
Environmental Finance	500,000	Magazine with coverage including PES	
Nature Valuation (Netherlands)	600,000	Website for researchers, based in Netherlands	$150,000/yr for 4 yrs
WWF PES Newsletter	600,000	Just established	$150,000/yr for 4 years
World Bank Ecosystem Services	200,000	Website on bank PES projects, resources	
IIED/CARE/WWF Community PES	200,000	Just being established	Projected $50,000/yr for 4 years
Stanford-TNC-WWF ES project	1,000,000	Ecosystem service mapping, research	
Ecosystem Marketplace	840,000	Forest Trends & Katoomba Group	Marketplace w/o GEF support: biodiversity PES, community PES, outreach,
Sub-total	3,840,000		
2.Regional Katoomba Group Networks ***			Activities that promote PES innovation, build institutions and policies
Developing country national PES programs in 12 E. and S. Africa and Tropical America countries	48,000,000	Policy, institutional development, capacity-building activities: Kenya, Uganda, Malawi, South Africa, Tanzania, Madagascar, Brazil, Colombia, Costa Rica, El Salvador, Mexico	Estimated average $1 million per year in each country X 4 years X 12 countries (very rough estimate)
Asian Development Bank	340,000	PES projects in Sri Lanka, Vietnam	25% value
Bolivia IGOs, NGOs, private businesses	250,000	Created carbon sequestration market	
DFID	3,000,000	Diverse projects	25%

Future Forests	1,000,000	Diverse community PES	25% of project value for cap-bldg
FAO	200,000	Honduras	
FAO-Dutch-GTA	1,000,000	LAC regional forest ES	
Face Foundation	5,000,000		25% of projects for cap-bldg
GEF projects	8,900,000	Projects in Latin America, S. Asia, Danube Basin	
German Cooperation	3,100,000	Costa Rica	
IADB	1,525,000	LAC, Honduras, Colombia projects	10-25%
IFAD	1,250,000	RUPES project-7 Asian countries	
IIED	2,000,000	Pilot sites for watershed PES	100% of project
IUCN	1,000,000	Regional Env Economics Program in Asia	
UNDP	200,000	9 sites for partnerships in ES	10% for PES
UNDP	200,000	Global "Footprint Neutral' program	
UNEP	170,000	LAC-site assessment	
UNEP	1,000,000	Existing, planned projects, incorporation in multilateral convention	Includes capacity-building
UN Foundation	250,000	4 projects in Brazil	
Winrock Int'l	1,000,000	Asia capacity-building	
World Bank BioCarbon Fund	2,250,000	Latin America projects	Existing, in pipeline-
World Bank	11,410,000	LAC projects	
World Bank	2,000,000	Planned Africa projects	25%
Sub-total	97,295,000		
3.1. Agri-Environmental Landscape Models			Activities to develop, disseminate new agri-environmental models for biodiversity at landscape scale
SENSOR	$1,000,000	EU initiative	10% directly relevant for developing countries [check]
China	1,000,000	Government	Re-design and research on public payments to farmers
FAO	1,000,000	Multilateral	Diverse projects
World Agroforestry Centre	1,000,000	NGO	Action research projects on PES in Africa and Asia
World Bank	1,000,000	Multilateral	Research projects on PES for biodiversity and water
Woods' Hole Research Inst & Brazil collaborators	1,000,000	NGO	Action research on PES to stop tropical deforestation in agricultural frontiers
Sub-total	6,000,000		
3.2.Biodiversity Offsets			Activities to develop and

Models			disseminate business models for biodiversity offsets
EBI	1,000,000	Multi-stakeholder initiative	BP, Chevron Texaco, Shell, Statoil, Ci, FFI, Smithsonian, IUCN, TNC—to support no net loss of biodiversity at project sites (minimum standards)
ICMM	200,000		Analysis of biodiversity offsets
CBD	200,000	Multilateral	Develop guidance for business biodiversity offsets
IPIECA	600,000		Plans to undertake offsets
IFC	200,000		New Standards
Rio Tinto Working Group	200,000	Group with company & NGOs	Developing plan to implement net positive biodiversity outcomes
Cambridge Conservation Forum	100,000		?
Sub-total	2,500,000		
3.3.Forest Enterprises PES Models			Activities to develop and disseminate business models for PES in forest enterprises
Tropical Forest Trust	$1,250,000	Investment fund	25% of $5,000,000 for institutional development
Mexican forest communities	250,000	Local deals	25% of $1,000,000
Private companies	500,000	Private deals	25% of $2,000,000 natural forest timber companies selling BD easements
Sub-total	2,000,000		
3.4. Coastal Landscape Protection Models			Activities to develop and disseminate PES landscape models for coastal protection.
Small number of PES for fishery protection	250,000	Local agreements with coastal communities, fishermen	25% for design, capacity-building
Sub-total	250,000		
Total	$111,885,000		

* Baseline figures only refer to activities in developing countries; in operational models, to projects with biodiversity components.

** Most of these numbers are very rough estimates

*** See “Baseline Inventory of Multilateral PES Investment” for details on projects for each multilateral donor

ANNEX 12B. BASELINE INVENTORY OF MULITLATERAL PES PROJECTS

Source	Region of Implementation	Main Objective	Amount Invested	% Allocable to PES Institution-building	$ Allocated to Baseline	Status
ADB	Sri Lanka	This loan is designed to help facilitate the development and management of marketable environmental goods for the explicit purpose of reducing poverty	$800,000 Loan	25%	200,000	Completed
ADB	Sri Lanka and Vietnam	Funding and technical assistance for pilot programs to establish pro-poor market mechanisms for water and sanitation services	$550,000	25%	$140,000	Operational
World Bank BioCarbon Fund	San Nicolás, Colombia	Provide financing for establishing mechanisms to fund local landowners who manage watersheds and conserve biodiversity	Undisclosed	100%	250,000	Operational
World Bank BioCarbon Fund	Costa Rica	Will fund FONAFIFO's project to expand program to pay farmers for the environmental services they provide, such as biodiversity conservation and watershed protection	Undisclosed	?	1,000,000	Operational
World Bank BioCarbon Fund	Río Blanco, Dominican Republic	Project will pay communities to restore and conserve ecosystem services; the aim of these payments is to reduce poverty	Undisclosed	?	1,000,000	Operational
FAO	Honduras	Identification of posible opportunities to establish markets for PES	$200,000 grant	100%	200,000	Completed
GEF	El Salvador	Funds a pilot to establish PES; will facilitate protection of watersheds, preservation of the El Salvador Mesoamerican Biological Corridor and better allocation of natural resources	$5,000,000 Grant	25%	$1,250,000	Approved

GEF	Columbia, Costa Rica and Nicaragua	*Regional Integrated Silvopastoral Ecosystem Management Project* created a mechanism to pay land users for the environmental goods they were producing as an incentive to adopt sustainable sivopastoral practices	$4,500,000 Grant	25%	1,100,000	Completed
GEF	Costa Rica	Grant to assist in the biodiversity conservation component of Costa Rica's Ecomarkets Project	$8,000,000 Grant	25%	2,000,000	Operational
GEF	Venezuela	Proposal being developed where the hydroelectric plant CVG-EDELCA will pay for watershed protection		?	100,000	Developing
GEF	South Africa	Funding for the Cape Strategy and Action Plan to establish pilots for creating mechanisms that integrate PES into the South African economy	$11,320,000 Grant	25%	2,830,000	Operational
GEF	Mexico	To implement public and private financial mechanisms, develop markets for environmental services to help conserve Mexico's ecosystems/biodiversity	$15,350,000 Grant	25%	$380,000	Developing
GEF	South Asia	Promotes sustainablity/conservation of tropical fruits in Southern Asia via, among other means, market mechanisms for ecosystem services	$3,500,000 Grant	10%	350,000	Developing
GEF	Andean Region	Creating conservation incentives by promoting economic activity for sustainable comercialization of biodiversity; also promotes the internalization of costs/benefits originating from conserving biodiversity	$6,350,000 Grant	10%	635,000	Developing
GEF	Danube Basin Region	Project organized by WWF to establish PES scheme for services provided by the Danube River	Less than $1,000,000 Grant	25%	250,000	Developing
German Financial Cooperation	Costa Rica	Grant to FONAFIFO to influence farmers to engage in reforestation, sustainable forest management	$12,700,000 grant	25%	3,100,000	Completed

German Financial Cooperation	Columbia	Grant to FEDERACAFE to natural reforestation	$28,100,000 grant	10%	2,800,000	Completed
IADB	Honduras	One of the six components of this loan is to help facilitate environmental management reform; under this umbrella, Honduras will use the loan to establish a system of payments for ecosystem services	$9,000,000 Loan	10%	900,000	Operational
IADB	Latin American Region	This "Payments for Environmental Services" grant was for helping establish PES in Latin America	$150,000 Grant	100%	150,000	Completed
IADB	Columbia	Aims to help small and medium sized enterprises grow in Columbia's urban centers. One of the three components is to demonstrate how PES markets can benefit these businesses and to promote and coordinate these markets.	$2,371,000	25%	$475,000	Operational
IFAD	7 Asia countries	Establishment of RUPES program; to pay upland poor for the environmental services they provide	Undisclosed	25%	1,250,000	Operational
IGOs, NGOs, Private Businesses	Bolivia	Created a market for carbon sequestration that involved private business, communities and the government		?	250,000	Completed
IUCN	Asia	Funding for REEP (Regional Environmental Economics Programme); movement to build capacity to establish markets for environmental services in Asia, mainstream PES, identify potential future sites	Undisclosed	?	1,000,000	Operational
UN Foundation	Brazil	Funding Forest Trends projects in Brazil to create markets for 'renewable energy technologies and services;" emphasis on low-income farmers and generating income via the services they provide	Undisclosed	?	250,000	Developing

UNDP	Nine sites in Africa, Latina America, Eastern Europe	Created public private partnerships for joint management of environmental resources; mostly focused on emissions, waste management and payments	$2,000,000 from 1995-1999	10	200,000	Completed
UNDP	Global	Establishing 'Footprint Neutral' program to offer businesses a voluntary market to offset emissions	Undisclosed	?	200,000	Developing
UNEP	Latin American Region	Study of potential sites, benefits of investing in establishing markets for PES; financing of pilot projects	$170,000 grant	?	$170,000	Completed
World Bank	Columbia	To reduce GHG emissions in Chile's water treatment sector via CDM	$300,000 Grant	?	$30,000	Approved
World Bank	Costa Rica	*Ecomarkets Project*, which provided funding to the government to maintain their PES program	$32,600,000 Loan	?	8,000,000	Operational
World Bank	Guatemala	*Western Altiplano Natural Resources Management Project* loan, which included a component that tested PES mechanisms on a local level	$32,800,000 Loan	?	$3,280,000	Completed
World Bank	Mexico	20 year loan to Mexico's National Forestry Commission to fund research into the effectiveness of PES markets and to promote private PES markets for water, biodiversity and ecotourism	$100,000,000 Loan (Over 20 Years)	?	100,000	Operational
TOTAL				?	33,840,000	

ANNEX 13. TRACKING TOOL FOR GEF BIODIVERSITY FOCAL AREA STRATEGIC PRIORITY TWO: "MAINSTREAMING BIODIVERSITY IN PRODUCTION LANDSCAPES AND SECTORS"

Objective: This tracking tool will measure progress in achieving the coverage and impact targets established at the portfolio level under Strategic Priority Two of the biodiversity focal area and as agreed in the business plan for GEF Phase-3 (please see Annex A). The expected impacts of this strategic priority are to: (a) produce biodiversity gains in production systems; (b) improve livelihoods based on sustainable harvesting of natural resources; (c) replicate approaches applying positive incentive measures and instruments; and (d) mainstream biodiversity into the development and technical assistance, sector, and/or lending programs of the Implementing Agencies.

Structure of Tracking Tool: This tracking tool reflects a review of the types of projects that have been supported under Strategic Priority Two. In addition, the content and structure of the tracking tool have been informed by feedback from the GEF biodiversity task force, input from a workshop held in Cambridge in 2003, and pre-testing of the tool.[1]

Guidance in Applying the Tracking Tool: This tracking tool will be applied three times: at work program inclusion[2], at project mid-term during project implementation, and at project completion. The completed forms from projects will be aggregated for analysis of directional trends and patterns at a portfolio wide level.

Projects which fall clearly within Strategic Priority (SP) #2 will only apply the tracking tool for SP#2. Projects that also contribute to SP#1, however, should also apply the tracking tool for SP#1. It is important to keep in mind that the objective is to capture the full range of a project's contributions to delivering on the targets of the strategic priorities. The Implementing Agency will guide the project teams in the choice of the tracking tools. Please submit all information on a single project as one package (even where more than one tracking tool is applied).

Multi-country projects may face unique circumstances in applying the tracking tools. The GEF requests that multi-country projects complete one tracking tool per country involved in the

[1] "GEF workshop to develop a "tracking tool" to evaluate the impacts of sustainable use activities in GEF Mainstreaming Projects". Cambridge, October 2003.
[2] For Medium Sized Projects when they are submitted for CEO approval.

project, based on the project circumstances and activities in each respective country. The completed forms for each country should then be submitted as one package to the GEF. Global projects which do not have a country focus, but for which the tracking tool is applicable, should complete the tracking tool as comprehensively as possible.

The tracking tool is designed to be "user-friendly", while attempting to ensure objective assessment of the progress of the project situation. Project proponents and managers will likely be the most appropriate individuals to complete the form, in collaboration with the project team, since they would be most knowledgeable about the project. Staff and consultants already working in the field could also provide assistance in filling out the form.

The tracking tool will be used for the remainder of the third phase of the GEF (GEF-3) until June 30, 2006 at which time feedback will be sought from the users of the tracking tool in order to improve and refine it for application during the fourth phase of the GEF. The tracking tools are best thought of as a work in progress that will require refinement through an iterative process of application, reflection and analysis throughout GEF-3. Please keep track of your experiences in applying the tool so that the tool can be improved based on your practical experience in its application.

Submission: The finalized form will be cleared by the Implementing Agencies and Executing Agencies under expanded opportunities before submission to GEF Secretariat for aggregation and analysis at the portfolio level. This tracking tool does not substitute or replace project level M&E processes, or Implementing Agencies' own monitoring processes. As mentioned above, the tracking tool is to be submitted to the GEF Secretariat at three points:

- With the project document for work program inclusion[3];
- Within 3 months of completion of the project's mid-term evaluation or report; and
- With the project's terminal evaluation or final completion report, and no later than 6 months after project closure.

[3] For Medium Sized Projects when they are submitted for CEO approval.

ANNEX A

Strategic Priority Two: Mainstreaming Biodiversity in Production Landscapes and Sectors

1. Rationale: To integrate biodiversity conservation into production systems/sectors (agriculture, forestry, fisheries, tourism, coastal development, industry and others). To promote conservation of biodiversity worldwide by accelerating the growth, improving the quality and establishing the enabling policy and institutional frameworks of new financial mechanisms that reward conservation behaviour.

2. Expected impact: (i) Increased financing for conservation of ecosystem services; ii) Produce biodiversity gains in production systems and protected areas in working landscape mosaics; iii) Biodiversity conservation mainstreamed into private productive sectors; iv) Biodiversity mainstreamed into the sector programs of the IAs.

3. Targets (coverage)

- Strategic advisory support provided for PES development to 50 projects, mainly in tropical America and eastern and southern Africa
- Provision of timely market information on PES to a global audience of diverse stakeholders
- Strategic advisory support to policymakers devising PES strategies and rules in at least 20 countries, mainly in tropical America and eastern and southern Africa
- Private sector beneficiaries of ecosystem services in diverse sectors mobilized to become buyers, or to expand scale of PES or finance for PES.

4. Performance indicators (impact)

- At least 8 new PES projects developed with new or improved design in tropical America and Eastern and Southern Africa.
- At least 15 projects with new biodiversity PES models
- At least 8 PES projects with improved biodiversity outcomes in these countries;
- 100% increase in number of hectares covered by PES with clear biodiversity impact in collaborating PES projects (to be determined once projects selected)
- At least 8 countries with institutional capacity for strategic analysis, planning and implementation of PES schemes among leaders from key stakeholder groups
- At least 12 governments, businesses or international NGOs will have adopted policies that reflect project PES recommendations
- The Ecosystem Marketplace market information service will have at least 5000 subscribers and 75,000 users globally.
- Increase participation of rural communities in PES in at least 8 countries in tropical America and eastern and southern Africa as a result of project activities

5. Modality to track “targets” (coverage) and “performance indicators” (impact)

- This tracking tool will be applied to all relevant projects approved under GEF-3 at work program inclusion, project mid-term and at project completion.
- The information from each project will be aggregated for portfolio-level analysis.

- The progress towards meeting the targets and performance indicators will be published annually.

I. Project General Information

1. Project name:

"Institutionalizing Payments for Ecosystem Services"

2. Country (ies):

National Project:_____ Regional Project:_____ Global Project:____X_____

3. Name of reviewers completing tracking tool and completion dates:

	Name	Title	Agency
Work Program Inclusion	Andrew Bovarnick		UNDP
Project Mid-term			
Final Evaluation/project completion			

4. Funding information

GEF support:_____$5,700,900_____
Co-financing:__$12,027,000_____
Total Funding:__$17,727,900_____

5. Project duration: Planned____4___ years Actual _____ years

6. a. GEF Agency: X□ UNDP □ UNEP □ World Bank □ ADB □ AfDB □ IADB □ EBRD □ FAO □ IFAD □ UNIDO

6. b. Lead Project Executing Agency:
Forest Trends

7. GEF Operational Program:

□x drylands (OP 1)
□x coastal, marine, freshwater (OP 2)
□ x forests (OP 3)
□ x mountains (OP 4)
□ agro-biodiversity (OP 13)
□ integrated ecosystem management (OP 12)
□ sustainable land management (OP 15)

Other Operational Program not listed above:_____

8. Project Summary (one paragraph):

Around the world, widespread interest is emerging in markets and payment schemes that reward actors who conserve or restore the ecosystem services (PES) provided by terrestrial, freshwater, and marine ecosystems, while providing a viable and sustainable source of livelihood for rural communities. The *overall objective* of this project is to establish institutional capacity for expanding systems of payments for ecosystem services to a scale sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services and on achieving the Millennium Development Goals. The principal *outcomes* of the project are:

- Timely, relevant market information for PES available to all stakeholders globally, through The Katoomba Group's Ecosystem Marketplace;
- National champions and stakeholders of PES in Eastern and Southern Africa and Tropical America have improved capacity and access to technical assistance for institutional and policy development for PES; and
- Operational models and capacity to effectively design, establish and implement new types of PES for biodiversity conservation.

9. Project Development Objective:

To institutionalize and scale up financial payments for ecosystem and biodiversity stewardship so that the financial value of these services is fully reflected in economic decision-making by land managers, investors, consumers and others.

10. Project Purpose/Immediate Objective:

To establish institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation of biodiversity and ecosystem services.

11. Expected Outcomes (GEF-related):

1) Timely, relevant market information for PES available to all stakeholders globally, through the Katoomba Group's Ecosystem Marketplace

12. Production sectors and/or ecosystem services directly targeted by project:

*12. a. Please identify the main production sectors involved in the project. Please put "**P**" for sectors that are primarily and directly targeted by the project, and "**S**" for those that are secondary or incidentally affected by the project.*

Agriculture_____P__
Fisheries_____P_
Forestry_____P_
Tourism_____S____
Mining____S___
Oil_____S____
Transportation__X_____

Other (please specify)_Flood protection_____

12. b. For projects that are targeting the conservation or sustainable use of ecosystems goods and services, please specify the goods or services that are being targeted, for example, water, genetic resources, recreational, etc

1. ____water_____
2. _____recreation_____
3. _____offsets_____
4. _____

II. Project Landscape/Seascape Coverage

13. a. What is the extent (in hectares) of the landscape or seascape where the project will directly or indirectly contribute to biodiversity conservation or sustainable use of its components? An example is provided in the table below.

Targets and Timeframe Project Coverage	Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
Landscape/seascape[4] area directly[5] covered by the project (ha)	1,000,000 has (15 projects)		
Landscape/seascape area indirectly[6] covered by the project (ha)	2,000,000 has		

[4] For projects working in seascapes (large marine ecosystems, fisheries etc.) please provide coverage figures and include explanatory text as necessary if reporting in hectares is not applicable or feasible.
[5] Direct coverage refers to the area that is targeted by the project's site intervention. For example, a project may be mainstreaming biodiversity into floodplain management in a pilot area of 1,000 hectares that is part of a much larger floodplain of 10,000 hectares.

Explanation for indirect coverage numbers:
These include areas expected to benefit through Katoomba Group assistance and replication.

13. b. Are there Protected Areas within the landscape/seascape covered by the project? If so, names these PAs, their IUCN or national PA category, and their extent in hectares.

	Name of Protected Areas	IUCN and/or national category of PA	Extent in hectares of PA
1.	No Specific PAs		
2.			

III. Management Practices Applied

14.a. Within the scope and objectives of the project, please identify in the table below the management practices employed by project beneficiaries that integrate biodiversity considerations and the area of coverage of these management practices? Note: this could range from farmers applying organic agricultural practices, forest management agencies managing forests per Forest Stewardship Council (FSC) guidelines or other forest certification schemes, artisanal fisherfolk practicing sustainable fisheries management, or industries satisfying other similar agreed international standards, etc. An example is provided in the table below.

---

[6] Using the example in footnote 5 above, the same project may, for example, "indirectly" cover or influence the remaining 9,000 hectares of the floodplain through promoting learning exchanges and training at the project site as part of an awareness raising and capacity building strategy for the rest of the floodplain. Please explain the basis for extrapolation of indirect coverage when completing this part of the table.

Targets and Timeframe Specific management practices that integrate BD	Area of coverage foreseen at start of project	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
1. E.g., Shade-grown coffee production (agroforestry)	120,000 hectares		
2. Ecoagriculture within farm landscapes (give examples of beneficial practices)	50,000		
3. Biodiversity offsets	100,000		
4. Mangrove and reef maintenance for flood control	20,000		
5. Maintenance of forests and sustainable harvesting	300,000		

14. b. Is the project promoting the conservation and sustainable use of wild species or landraces?
__X__Yes ____ No

If yes, please list the wild species (WS) or landraces (L):
(Wild species, to be determined by selection of projects)

Species (*Genus sp*., and common name)	Wild Species (please check if this is a wild species)	Landrace (please check if this is a landrace)
1.		
2.		
3.		
4…		

*14. c. For the species identified above, **or other target species of the project not included in the list above (E.g., domesticated species)**, please list the species, check the boxes as appropriate regarding the application of a certification system, and identify the certification system being used in the project, if any. An example is provided in the table below.*

Certification Species	A certification system is being used	A certification system will be used	Name of certification system if being used	A certification system will not be used
2…				

Not applicable.

14. d. Is carbon sequestration an objective of the project?

□ Yes x□ No

If yes, the estimated amount of carbon sequestered is: _____

IV. Market Transformation and Mainstreaming Biodiversity

15. a. ***For those projects that have identified market transformation as a project objective****, please describe the project's ability to integrate biodiversity considerations into the mainstream economy by measuring the market changes to which the project contributed.*
The sectors and subsectors and measures of impact in the table below ***are illustrative examples, only****. Please complete per the objectives and specifics of the project.*

Name of the market that the project seeks to affect (sector and sub-sector)	Unit of measure of market impact	Market condition at the start of the project	Market condition at midterm evaluation of project	Market condition at final evaluation of the project
Payments for biodiversity conservation	Area conserved	Very limited		
Payments for biodiversity restoration	Area restored	Very limited		

15. b. Please also note which (if any) market changes were directly caused by the project.

The project will not directly impact any one specific market. However, it will promote conditions to develop markets for biodiversity through global capacity building and by the end of the projects a number of local and possibly even global markets will be influenced. This will include markets for biodiversity offsets, agricultural practices, coastal natural defences, sustainable forestry practices etc

V. Improved Livelihoods

16*. For those projects that have identified improving the livelihoods of a beneficiary population based on sustainable use /harvesting as a project objective, please list the targets identified in the logframe and record progress at the mid-term and final evaluation. An example is provided in the table below*

Improved Livelihood Measure	Number of targeted beneficiaries (if known)	Please identify local or indigenous communities project is working with	Improvement Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
1. Increased incomes	2000	*To be determined by final project selection*	10 % increase over baseline		
2. Enhanced community capacity for ecosystem management and PES	50 communities	To be determined by final project selection	Engagement in community planning, and negotiations and policies related to PES		

VI. Project Replication Strategy

17. a . Does the project specify budget, activities, and outputs for implementing the replication strategy? Yes___ No___

Replication is fully integrated into project design and activities.

17. b. Is the replication strategy promoting incentive measures & instruments (e.g. trust funds, payments for environmental services, certification) within and beyond project boundaries? Yes__X_ No___

If yes, please list the incentive measures or instruments being promoted:

The project will support diverse types of payments for biodiversity conservation, including agri-environmental payments, carbon payments with biodiversity co-benefits, wetlands mitigation banking, conservation banking, coastal conservation payments, biodiversity offsets and others.

17. c. For all projects, please complete box below.

Replication Quantification Measure (Examples: hectares of certified products, number of resource users participating in payment for environmental services programs, businesses established, etc.)	Replication Target Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
1. Number of new PES projects developed with biodiversity benefits	20		
2. Number of PES projects with improved biodiversity coutcomes	20		

VII. Enabling Environment

For those projects that have identified addressing policy, legislation, regulations, and their implementation as project objectives, please complete the following series of questions: 18a, 18b, 18c.

An example for a project that focused on the agriculture sector is provided in 18 a, b, and c.

*18. a. Please complete this table at **work program inclusion for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.*

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	Agriculture	Fisheries	Forestry	Tourism	Other (please specify)	Other (please specify)
Biodiversity considerations are mentioned in sector policy						
Biodiversity considerations are mentioned in sector policy through specific legislation						
Regulations are in place to implement the legislation						
The regulations are under implementation						
The implementation of regulations is enforced						
Enforcement of regulations is monitored						

We cannot fill in at this time; no countries have been selected for policy reform as this is a global capacity building project. Once the project starts and we identify countries where policy reform will be supported, the table can be filled in.

*18. b . Please complete this table at **the project mid-term for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.*

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	Agriculture	Fisheries	Forestry	Tourism	Other (please specify)	Other (please specify)
Biodiversity considerations are mentioned in sector policy						
Biodiversity considerations are mentioned in sector policy through specific legislation						
Regulations are in place to implement the legislation						
The regulations are under implementation						
The implementation of regulations is enforced						
Enforcement of regulations is monitored						

We cannot fill in at this time; no countries have been selected for policy reform as this is a global capacity building project. Once the project starts and we identify countries where policy reform will be supported, the table can be filled in.

*18. c. Please complete this table at **project closure for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.*

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	Agriculture	Fisheries	Forestry	Tourism	Other (please specify)	Other (please specify)
Biodiversity considerations are mentioned in sector policy						
Biodiversity considerations are mentioned in sector policy through specific legislation						
Regulations are in place to implement the legislation						
The regulations are under implementation						
The implementation of regulations is enforced						
Enforcement of regulations is monitored						

All projects please complete this question at the project mid-term evaluation and at the final evaluation, if relevant:

18. d. Within the scope and objectives of the project, has the private sector undertaken voluntary measures to incorporate biodiversity considerations in production? If yes, please provide brief explanation and specifically mention the sectors involved.

An *example* of this could be a mining company minimizing the impacts on biodiversity by using low-impact exploration techniques and by developing plans for restoration of biodiversity after exploration as part of the site management plan.

_____

Explain the biodiversity offsets and private sector involvement in the Katoomba group_____
_____
_____
_____

VIII. Mainstreaming biodiversity into the GEF Implementing Agencies' Programs

19. At each time juncture of the project (work program inclusion, mid-term evaluation, and final evaluation), please check the box that depicts the status of mainstreaming biodiversity through the implementation of this project with on-going GEF Implementing Agencies' development assistance, sector, lending, or other technical assistance programs.

Time Frame Status of Mainstreaming	Work Program Inclusion	Mid-Term Evaluation	Final Evaluation
The project is not linked to IA development assistance, sector, lending programs, or other technical assistance programs.			
The project is indirectly linked to IAs development assistance, sector, lending programs or other technical assistance programs.			
The project has direct links to IAs development assistance, sector, lending programs or other technical assistance programs.	X		
The project is demonstrating strong and sustained complementarity with on-going planned programs.			

IX. Other Impacts

20. Please briefly summarize other impacts that the project has had on mainstreaming biodiversity that have not been recorded above.

_____
_____
_____

PES Essential Components	Uganda Ruhweza, Alice (2005)	Kenya Mutunga and Mwangi (2005)	South Africa King, Nicola (2005)

ANNEX 14. OVERVIEW OF INSTITUTIONAL DEVELOPMENT OF PES IN AFRICA

IDENTIFY KEY SERVICES AND ACTORS Ecosystem Service Payments, Markets, and Mechanisms Currently Operating In Region	**Carbon**: 5 projects identified **Biodiversity:** 6 project identified	**Carbon**: 4 projects identified **Biodiversity:** 8 projects identified **Water:** 1 project identified	**Carbon**: 5 projects identified **Biodiversity:** 3 projects identified **Water:** 7 projects identified
Example	**Name:** ECOTRUST – Trees for Global benefits program **Service**: Carbon **Buyer:** Tetra pak, Future Forests **Seller:** Individual Smallholder Farmers **Required activities:** Planting of indigenous tree species. **Status:** Some payments made	**Name:** The Wildlife Conservation Lease Program **Service:** Biodiversity **Buyer:** Friends of Nairobi National Park, Wildlife Foundation and Kenya Wildlife Service **Seller:** Local landowners **Required activities:** No fencing, quarrying, cultivation or subdivision and finally sustainably managing the land for Wildlife and grazing **Status:** Operational	**Name:** Working for Water **Servic**e: Water **Buyer:** Bulk water users (domestic and industrial); Agricultural water users; and Forestry water users **Seller:** Private contractors **Required activities:** Removal of alien invasive plant species that are large water users **Status:** Implemented

LEGAL AND REGULATORY FRAMEWORK Review Country-Level Legal, Regulatory, & Administrative Context for Ecosystem Service Payments	**Forestry Policy (2001)** makes provisions for sustainable management of forests including private investments including CDM projects.	None	**National Water Act** (Act No 36 of 1998) makes provision for the use of economic instruments in water management.
PES MARKET RULES PES Standards and Guidelines	**International standards:** Guidelines were set for investments from the forest sector, investments from the transport sector and the energy sector during the CDM capacity building process 2002-2003	**International standards:** Environmental Impact Assessment	**National and International standards:** Invasive alien vegetation clearing standards and the National Water Act (Act No.36 of 1998)
PES SUPPORT SERVICES Existence of and Need for Supporting Technical and Business Institutions	**Government:** 4 identified **Private:** 2 identified **NGO**: 1 identified	**Government:** 5 identified **Research:** 4 identified **NGO**: 6 identified	**Government:** 5 identified **NGO**: 2 identified
Example:	ECOTRUST is a fund manager and provides technical support for projects in western Uganda that are trying to integrate CDM for local community groups	East Africa Wildlife Services	Working for Water and Wetlands Office managed by the Department of Water Affairs and Forestry
LOCAL INVOLVEMENT IN PES	Emerging	Emerging	Strong
Examples of local involvement:	**Local organizations**: Identified in 7 out of 9 projects **Local representation in the program**: Identified in 5 out of 9 projects	**Local organizations**: Identified in 9 out of 13 projects **Local representation in the program**: Identified in 7 out of 13 projects	**Local organizations**: Identified in 9 out of 15 projects **Local representation in the program:** Identified in 14 out of 15 projects

MARKET INFORMATION FLOW	Potential site assessments: some Buyers assessments: none **Trainings:** Department of Meteorology, Forestry Research Institute, Makerere University, IUCN, Uganda Wildlife Authority.	Potential site assessments: none Buyers assessments: none Trainings: none	Potential site assessments: None Buyers assessments: None Trainings: None
AVAILABLE TECHNICAL ASSISTANCE	**Carbon:** linkage between buyers and sellers Biodiversity: support	**Carbon:** support, advising, brokerage **Biodiversity:** support, advising, brokerage **Water:** support, advising, brokerage	Carbon: None **Biodiversity:** Training support **Water:** Training support
POTENTIAL SOURCES OF FINANCE	**Project planning and Business planning**: World Bank Community Development Carbon Fund **Transactional:** ECOTRUST is helping a women's group in Bushenyi get linkages to buyers of CERs Risk management: none	Project planning and Business planning: UNDP/UNEP, World Bank (PCF) **Transactional:** UNDP/UNEP, World Bank (PCF) Risk management: none	Project planning and Business planning: World Bank, Government subsidies Transactional: World Bank Risk management: none