



Third
GEF
Assembly
2006

Cape Town, South Africa

GEF/A.3/Inf.2/Rev.1
August 8, 2006

Third GEF Assembly
Cape Town, South Africa
August 29-30, 2006

DISCUSSION NOTE FOR HIGH LEVEL ROUNDTABLE ON
MARKET MECHANISMS FOR FINANCING GLOBAL
ENVIRONMENTAL CONVENTIONS

Context

1. The timing is opportune for energetic initiatives to support market mechanisms for financing global environmental conventions, as evidenced by the increased global urgency in seeking new approaches to sustainable development. Participants in the roundtable are invited to discuss the importance of market mechanisms for financing global environmental priorities in the context of changing dynamics brought about by partnerships among the public and private sectors, multilateral organizations, non-governmental organizations (NGOs), and civil society.

Financing for the Environment

2. Governments, public external assistance, private sector, and civil society all have critical roles to play in providing the mixture of regulatory and financial instruments needed to achieve Multilateral Environmental Agreement (MEA) implementation.

3. Public–private partnerships will be most effective if they are developed within a comprehensive policy framework aimed at achieving defined goals. Partnerships can leverage public sector financing and promote innovative financing. Synergies between environmentally sound development aid and private investments should be strengthened. Development aid can be especially effective in building capacity, strengthening institutions, testing and demonstrating pilot investments, and reducing risks and transaction costs for private investment. Donor contributions also can be used to leverage the huge potential for the private financing of environmentally sound development, particularly in the water, agriculture, sanitation, and energy areas. Partnerships facilitate the overcoming of existing barriers to technology transfer in developing countries. Better alignment of public–private interests is both an important goal and a realistic prospect.

Public Funding

4. Governments have a lead responsibility for promoting environmentally sound development. They should make budgetary allocations and policy reforms necessary to support environmentally sound development (e.g., through elimination of perverse subsidies, enabling environments for private investment through regulatory reforms, and making domestic capital more readily available for environmentally sustainable investments). Governments have an important role to play in encouraging business contributions to national commitments under MEAs, *inter alia*, by fostering environmentally sustainable investment, finance, trade, and technology policies.

Private Funding

5. The private sector is not a monolith but a diverse set of entities, large and small, that can offer benefits including capital, expertise, roots in local and international markets, and the ability to build capacity and sustained follow through. Private enterprise is increasingly being seen as a key to sustainable economic development, and it is contributing to watershed protection, carbon emission-reduction programs, and biodiversity conservation. This contribution is true for local entrepreneurs as well as multinationals operating in developing countries. Private sector actors increasingly see a strong reputation with regard to their environmental practices as an essential

foundation for their commercial success. Private companies are driven by metrics of success such as timeliness, quality, and quantity of results on which the conventions can build. Motivations for the private sector to invest in business ventures and technologies that support MEA implementation include the following benefits:

- (a) Opportunities through public–private partnerships:
 - (i) Selling technology or services that would not attract investment absent of resources (e.g., a technology demonstration project)
 - (ii) Long-term benefits of environmental risk mitigation, improved business image and reputation, or access to global networks and experience; not necessarily direct increases in profits
 - (iii) Helping open markets over the long term or protecting current markets by foreseeing environmental risks that may ultimately threaten its business, making the MEAs integral to companies’ long-term business development strategies.
- (b) Clear business incentives to be involved in projects that increase demand and build local capacity to support their products and services and activities in a sustainable manner
- (c) Minimized damage to corporate brand, image, and reputation. By aligning their practices with MEA goals, businesses can:
 - (i) Protect their share value through mitigation of environmental and related business risks: access to capital, land, markets, reputation, security of supply, relations with regulators, liabilities, and insurance premiums
 - (ii) Distribute risk among the public sector, private sector, and international donor partners and provide financial support for demonstration projects
 - (iii) Benefit from government and multi- and bilateral organizations’ facilitation of policies and institutional environments conducive to private sector investment
 - (iv) Access worldwide experience and global information networks
 - (v) Get assistance in identifying partnership opportunities
 - (vi) Comply with and move beyond compliance with environmental regulations and reporting requirements
 - (vii) Improve official acceptance as corporate citizens.

6. Some elements common for all MEAs if the business sector is to be engaged more efficiently in solving global environmental problem are presented in Box 1.¹

Box 1. “Carrots and Sticks” for Business Sector Involvement

Carrots

- Improved profitability (win–win solutions)
- New business opportunities
- Economic incentives (subsidies, tax rebates)
- Enhanced reputation, image

Sticks

- Enforcement of environmental regulation
- Penalties, fees, and other sanctions (e.g., “offsets” if it is not possible to avoid or mitigate environmental impact)
- Economic instruments (e.g., taxes)

7. The Millennium Ecosystem Assessment outlines actions businesses can take that would improve their bottom line; reduce degradation of ecosystems; and benefit human well-being, including making business decisions that anticipate growing customer preferences for sustainably supplied services, new regulations, competitor strategies, investor demands for sustainable business models, and the establishment of market mechanisms.²

Market Mechanisms

8. A wide range of market mechanisms can be used to finance global environmental conventions, including innovative financial instruments, such as partial risk and credit guarantees and payment for environmental services. Markets also are being created for diverse commodities ranging from aquifer recharge credits; renewable energy credits; wasteload allocations for point and nonpoint source pollutants; and mitigation credits for wetlands, biodiversity, and riparian buffer zones. Water exchanges, water banks, and water leasing have emerged as arrangements for promoting market activity.³ A menu of public and private finance mechanisms is presented in Figure 1; a more exhaustive list of mechanisms is provided in Annex 1.

¹ Organization for Economic Cooperation and Development (OECD), *Multilateral Environmental Agreements and Private Investment: Workshop Proceedings and Key Messages*. Helsinki, 16-17 June 2005.

² Millennium Ecosystem Assessment.. *Ecosystems and Human Well-Being. Opportunities and Challenges for Business and Industry*. .Washington, D.C., World Resources Institute, 2005.

³ Ibid.

Figure 1: A menu of public and private finance mechanisms⁴

| | |
|---|---|
| <p>Public funding sources:</p> <ul style="list-style-type: none">• Government budget allocations to domestic conservation agencies• Earmarking tax revenue for conservation (e.g., taxes on energy, aviation, hotels)• Tax breaks or subsidies for private conservation efforts/investment• Earmarking charges or penalties related to natural resource use (e.g., timber stumpage fees, park entry fees, pollution taxes)• International development assistance (e.g., environmental aid, debt for-nature swaps, contributions to GEF or trust funds) <p>Private nonprofit sources</p> <ul style="list-style-type: none">• Private foundations• Community self-support groups• Secular and faith-based charities and NGOs• Dedicated fundraising campaigns or events• Merchandising, social marketing, lotteries <p>Public policy</p> <ul style="list-style-type: none">• Reforming environmentally-harmful subsidies (e.g., agric, fish, water, energy)• Public investment (e.g., infrastructure) | <p>Private for-profit sources</p> <ul style="list-style-type: none">• Commercial banks and export credit• Foreign direct investment• Venture and/or private capital• Public-private-community partnerships• Portfolio investors (e.g., "green" funds)• Community-enterprise (formal/informal)• Local self-financed business investment <p>Biodiversity-friendly products and services</p> <ul style="list-style-type: none">• Organic agriculture• Sustainable non-timber forest products;• Certified forest and fisheries products• Eco-tourism enterprise <p>Markets for ecosystem services</p> <ul style="list-style-type: none">• Bio-prospecting agreements• Carbon sequestration in biomass• Watershed protection incentives• Tradable development rights (biodiversity offsets and easements) |
|---|---|

9. Although great potential exists for introducing innovative market mechanisms, constraints and barriers should be recognized and addressed to achieve significant progress. Constraints include the following issues:

- (a) Lack of appreciation and recognition of the environment as natural capital and the foundation of socioeconomic systems
- (b) Difficulty in reaching effective international collaboration on managing global commons such as watersheds, and addressing intersectoral aspects of global environmental issues
- (c) Weak supporting institutions and inappropriate policies
- (d) Lack of capacity, knowledge, and skills
- (e) Costs of clean technologies
- (f) Trade barriers.⁵

⁴ Gutman, P. (ed.) (2003), as quoted by Joshua Bishop (IUCN) in Organization for Economic Cooperation and Development (OECD), *Multilateral Environmental Agreements and Private Investment: Workshop Proceedings and Key Messages*. Helsinki, 16-17 June 2005.

⁵ The World Trade Organization is exploring ways to enhance the mutual supportiveness of trade and environment, including the reduction or, as appropriate, elimination of tariff and nontariff barriers to environmental goods and services.

10. Creating an enabling environment and public policies for environmentally sustainable investments (e.g., phasing out perverse subsidies) is needed for developed-country markets to be accessed, shaped, and advanced and for the following conditions to be created:

- (a) Increased local and foreign investments contributing to technology transfer and sustainable environment
- (b) Increased role of export credit agencies in promoting environmentally sustainable development
- (c) Promotion of public–private partnerships.

Partnerships to Promote Market Mechanisms

11. Intergovernmental Organizations (IGOs) and NGOs have teamed up with the private sector to promote market mechanisms to solve environmental problems. The private sector also has taken on its own initiatives. For example, internal trading has been adopted by BP, Amoco, and other companies to achieve voluntary commitments to reduce production-related CO₂ emissions. Other partnership examples are listed in Annex 2.

Opportunities for Creating Markets and Attracting Private Investment within the Global Environmental Conventions

Convention on Biological Diversity

12. An objective of the Strategic Plan of the Convention for Biological Diversity (CBD) is that “key actors and stakeholders, including the private sector, are engaged in partnership to implement the Convention and are integrating biodiversity concerns into their relevant sectoral and cross-sectoral plans, programmes, and policies” (objective 4.4⁶). The CBD reports that the private sector has yet to be effectively and consistently engaged in the implementation of the CBD at either the global or national level.⁷ However, the daily activities of business and industry have major impacts on biodiversity. The private sector thus has the potential to make a significant contribution toward achieving the 2010 target and the objectives of the CBD by adopting and promoting good biodiversity practice, sharing relevant expertise and technologies with the public sector, and helping to mainstream biodiversity. Market-based interventions, such as payments for environmental services (PES), can be used by the private sector to conserve biodiversity through methods including agri-environmental schemes, mainstreaming biodiversity into carbon finance, biodiversity offsets, user fees (for protected areas), coastal services to reduce vulnerability, and marine services for restocking fisheries. For example:

⁶ Decision VII/26 Annex Strategic Plan for the Convention on Biological Diversity. Convention on Biological Diversity’s seventh meeting of the Conference of the Contracting Parties, Kuala Lumpur, Malaysia, 9 - 20 February 2004

⁷ Convention on Biological Diversity, Ad Hoc Open-Ended Working Group on Review of Implementation, *Private Sector Engagement in the Implementation of the Convention, Note by the Executive Secretary*. Item 5.2 of the Provisional Agenda, first meeting, Montreal, 5-9 September 2005.

- (a) In various countries, including Costa Rica and Venezuela, private hydropower producers and bottlers are making payments in their watersheds to NGOs or other bodies facilitating watershed-conservation measures.
- (b) In Ecuador, contributions from water utility and electric power companies in specific watersheds are used to pay for the conservation of protected areas.
- (c) In Colombia, Costa Rica, Mexico, and Nicaragua, farmers are paid to provide carbon sequestration and biodiversity services through silvopastoral practices— with Global Environmental Facility (GEF) support in most countries.

13. In Costa Rica’s ongoing countrywide program of payments for environmental services, *Pago por Servicios Ambientales*, 11 companies (hydropower producers, agribusiness, tourism, and bottlers) paid about \$365,000 in 2004 to land users for payments of environmental services on 10,215 hectares. Companies are scheduled as per their contracts to ultimately pay about \$665,000 annually, representing payments for environmental services on 18,031 hectares. The number of hectares covered under these contracts represents 4.5% of hydrologically important areas and 6.5% of biodiversity conservation priority areas.⁸

UN Framework Convention on Climate Change

14. In 1996, the Intergovernmental Panel on Climate Change published *Technologies, Policies and Measures for Mitigating Climate Change*⁹, which describes the sectors and technologies in which more investment is needed to help mitigate climate risks. In particular, it calls for more efficient energy use across all sectors, cleaner energy production (including more efficient use of fossil fuels), control of pollutants from the combustion of fossil fuels, and expanded use of renewable energy sources; increased sequestration of carbon in plants and soils; and better capture of greenhouse gas (GHG) emissions from agriculture and waste disposal operations.

15. Under the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, examples of innovative approaches to mitigate climate change—linked to the private sector—include the Clean Development Mechanism (CDM), emissions trading, and joint implementation. The World Bank is the leader in CDM financing as a result of its Prototype Carbon and BioCarbon funds, which enable investors to earn certified emission reductions (CERs) by investing in GHG-mitigation projects in developing countries. The size of the CDM market in 2010 is expected to be approximately 250 million tonnes of CO₂ equivalent at a price of USD \$11 per tonne of CO₂ equivalent.

16. For market-based mechanisms to function effectively and efficiently, the government plays an essential role by establishing the ground rules for the market, creating an enabling

⁸ Pagiola, S. *Payments for Environmental Services in Costa Rica*. Draft. Washington, D.C. World Bank, 2005.

⁹ Intergovernmental Panel on Climate Change, *Technologies, Policies, and Measures for Mitigating Climate Change*. R. T. Watson, M. C. Zinyowera, R. H. Moss, (eds.), IPCC Technical Paper 1. World Meteorological Organization and the United Nations Environment. Geneva, Switzerland, 1996.

environment to foster market development, and steering the market in the “right” direction. In the case of the Kyoto Protocol, which authorizes three market-based mechanisms, the market will determine the price of the emissions and allocate the resources for emissions reduction in a cost-effective manner. It is the Parties to the Convention and their political will, however, that have determined the cap of the emissions and the quantity of emissions reduction.

17. A recent initiative from China illustrates the role that the host government of CDM projects can and, perhaps, should play in the context of implementing market-based mechanisms. In October 2005, the Chinese government issued measures to regulate CDM projects in China.¹⁰ One of the regulatory measures is to levy a “tax” on the transfer of CERs to be generated from CDM projects.¹¹ It is proposed that the proceeds be used to create a CDM Fund to finance projects that will address climate change and sustainable development. Through a hefty tax on the transfer of CERs of hydrofluorocarbon (HFC) and perfluorocarbon (PFC) projects (which would amount to hundreds of millions of dollars), such measures would mitigate the possible perverse incentive and windfall to a particular group of “polluters” generated by the market-based mechanism and redirect the resources to areas that will benefit both the global environment and national sustainable development.

UN Convention to Combat Desertification

18. At its sixth session, in September 2003, the Conference of the Parties (COP), by Decision 1/COP.6, considered the promotion of private sector and economic opportunities in arid, semi-arid, and dry subhumid regions and countries. It encouraged the parties to link private sector initiatives to the identification of equal and fair economic opportunities for drylands goods and services. Private sector involvement in the implementation of the Convention to Combat Desertification (UNCCD) provides opportunities for strengthening the provision of financial and technological resources and capacity building for sustainable development in the drylands.

19. To date, experience is limited in attracting private sector involvement in dryland areas due to the challenges they represent. Countries affected by land degradation, especially desertification, need specially tailored solutions to ensure the involvement of private investment. Sustainable investments can happen only if host countries create the appropriate enabling conditions. Options for governments to attract private investments compatible with UNCCD objectives include (1) shaping their regulatory structure and offering public investment in a form that will leverage further private investment in sustainable enterprises, (2) ensuring a minimum infrastructure and facilities for development (roads, electricity, transportation, health services, etc.), and (3) providing incentive structures for small and medium enterprises. Opportunities for direct investment in these countries exist, such as in water supply and sanitation, ecotourism, agriculture (e.g., the production of high-price cash crops or crop and fodder reserves for dry periods), forestry (timber and non-timber products from forests and woodlands, such as use of medicinal plants), or livestock farming (e.g., meat and dairy products). Major opportunities also

¹⁰ National Coordination Committee on Climate Change, *Measures for Operation and Management of Clean Development Mechanism Projects in China*, Beijing China, 2005.

¹¹ The levy on the transfer of the CERs varies by project type: 65 percent on HFC and PFC projects, 30 percent on N₂O projects, and 2 percent on other CDM projects.

have emerged for the use of renewable energy sources (e.g., biofuels from *Jatropha curcas*, solar and wind energy). Beyond investments, the private sector can contribute to environmental and development goals by engaging in public–private partnerships or sponsoring activities (e.g., building roads and other infrastructure projects; preserving natural parks or landscapes, reserves, or archaeological and historic sites).¹²

Montreal Protocol

20. The Montreal Protocol’s success relies to a high degree on the involvement of industry to innovate, invest in, and transfer new technologies. The Montreal Protocol includes several measures that encourage private sector involvement and investment: (1) trade-related incentives (trade controls with nonparties and import restrictions in certain markets); (2) market development for alternatives to ozone-depleting substances; and (3) technology cooperation and technical and financial assistance for industries in developing countries. The opportunities for market creation under the Montreal Protocol have been the biggest driver for massive global investment by the business sector, leading to the development of a wide range of technologies in a very short time span and to the creation of jobs. Lessons learned from the Montreal Protocol include that prioritizing public–private partnerships has created a major new market and leveraged finance from the private sector while taking advantage of this sector’s flexibility, innovation, and pursuit of profitable investment.¹³ These kinds of market-oriented innovation and collaboration approaches could be replicated in the context of other MEAs and should be explored further.¹⁴

21. The private sector in developing countries contributes co-financing to the Multilateral Fund—a financial mechanism for the implementation of the Montreal Protocol. The United Nations Environment Programme (UNEP) also encourages additional investment by the private sector through voluntary corporate initiatives that reach beyond government regulations to improve industry’s environmental performance. One example is a UNEP program under which companies pledge to promote ozone-friendly technologies and practices to other companies (including suppliers and partners) to assist them in phasing out chlorofluorocarbons (CFCs). Such program have been initiated in China and India and are being promoted in other developing countries.

Role of the Multilateral Organizations

22. Multilateral organizations are instrumental in supporting the opening of markets, promoting technologies, and catalyzing private sector investments. The GEF has played a

¹² Debbabi, F. (Sahara and Sahel Observatory) *Innovation to Combat Desertification through Private Investment*. Presentation for the OECD Workshop in Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

¹³ OECD. *Environmentally Related Taxes in OECD Countries: Issues and Strategies*. Paris, France 2001.

¹⁴ United Nations Environment Program UNEP DTIE, “Improving Cooperation and Encouraging Private Investment to Strengthen MEA Implementation – How Can Intergovernmental Organisations Promote Private Investment that Supports MEA implementation? The Example of the United National Environment Prgram (UNEP)”. Presentation made at the OECD Workshop in Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

catalytic role in generating co-financing. Since its creation in 1991, the GEF has allocated \$6 billion to projects that have leveraged more than \$20 billion of co-financing. GEF climate change projects in particular have leveraged significant amounts of financing from international financial institutions, multilateral and bilateral agencies, host governments, commercial banks, and the private sector. For every GEF grant dollar that goes to energy efficiency and renewable energy projects, at least \$5 of co-financing has been leveraged, on average.

23. The catalytic role played by the GEF is manifested by its “barrier-removal” approach in supporting climate change programs, especially energy efficiency and renewable energy. By creating an enabling policy environment, strengthening the capacity of institutions, fostering market-based mechanisms, supporting innovative financing instruments, and sharing information and knowledge, GEF projects aim to remove barriers that hamper the wide adoption of energy-efficient and renewable energy technologies. The promotion of innovative financing instruments in particular, such as partial risk guarantees and special-purpose funds, through the World Bank, the International Finance Corporation (IFC), and other GEF partner agencies has helped the private sector, including the energy service industry, gain access to local commercial financing for clean energy investments.

24. It is also worth noting that the private sector in GEF recipient countries—typically the small and medium enterprises (SMEs)—has played an important role in participating in GEF projects not only as a beneficiary but also as a co-financier of the projects. The GEF has funded about two dozen projects that support the development of the market-based energy service companies in Eastern Europe, Asia, and Latin America. In almost all GEF-funded industrial energy efficiency projects in countries such as Bangladesh, China, India, Kenya, Malaysia, and Vietnam, the target tends to be energy-intensive sectors of the SMEs, such as building materials, iron and steel, pulp and paper, textile, and food processing. The GEF provides seed money for energy audits, feasibility studies, and engineering designs, whereas the private industries finance the investment with their equity and commercial loans.

25. The GEF’s catalytic role has been well recognized by the GEF partner agencies and the governments of the recipient countries. The demonstration effect of the GEF projects has paved the way for other avenues of financing, such as carbon finance for CDM projects, for scaling up and replication. The innovative financing mechanisms supported by the GEF also have led the IFC to integrate sustainable energy financing into its core businesses.

26. The World Bank Group has, over the past 14 years, approved about \$5 billion in loans and credits and, through its investments and technical support, has leveraged about \$15 billion of additional financing from public, private, and bilateral sources for renewable energy and energy efficiency. In early 2004, the Bank’s active portfolio in renewable energy and energy efficiency comprised more than \$1.7 billion in loans, credits, and grants in 72 projects spread across 36 countries. Typically, more than 60 percent of renewable energy and energy efficiency project costs are covered by co-financing, largely through the private sector.¹⁵

¹⁵ GEF, *Report on the Assessment of Funding Necessary to Assist Developing Countries Fulfilling Their Commitments under the Convention Prepared in the Context of the Memorandum of Understanding between the*

27. In calendar year 2005, UNDP mobilized \$1 billion in co-financing to go along with the \$285 million in grants in its GEF project approvals and developed several innovative public-private partnerships schemes. UNDP is working with both governments and the private sector to help create enabling environments and develop the capacity needed to establish payment for ecosystem service systems, access to financing options, standards, labels and certification schemes, high nature value production systems, green water credits, and small and medium size enterprise investment in environmentally sustainable businesses such as ecotourism¹⁶. For instance, in the Europe/CIS region, UNDP has piloted 20 projects dealing with financing mechanisms to promote energy efficient district-heating, such as municipal financing; national environmental funds; federal housing funds; audit funds; and parallel financing of risk guarantees from multilateral, bilateral, or national financial institutions.

28. In addition, to support the implementation of the global environmental conventions, UNEP has programs and activities in place that (1) strengthen national capacities with a view to making technology and investment decisions to meet compliance targets; (2) build capacity to make informed decisions about investment services that assist developing countries and Countries with Economies in Transition; (3) facilitate technology transfer; (4) support the development of national policy frameworks that are conducive to promoting environmentally friendly business behavior; and (5) promote voluntary corporate approaches that reach beyond government regulations to improve industries' environmental performance.¹⁷

Questions for Roundtable Participants

29. In 1991, the total inflow of capital for developing countries of \$123 billion was about equally divided between official and private sources. Less than a decade later, in 2000, total private flows had reached \$257 billion in nominal terms and were more than five times higher than official flows. This dominance of private over official capital flows makes it clear that multinational corporations are having, and will continue to have, a profound impact on the environments of the developing countries. In the case of the private sector–environment nexus, the key issues today are as follows:

(a) *How can capital flows to low-income countries be increased?*

Conference of the Parties and the Council of the Global Environment Facility. Paper prepared for the 21st session of the Framework Convention on Climate Change, Buenos Aires, 6-14 December 2004.

¹⁶ For example, the Coffee and CAMBIO projects in Central America have attracted over \$80 million and \$65 million respectively in private sector co-financing

¹⁷ United Nations Environment Program UNEP DTIE, "Improving Cooperation and Encouraging Private Investment to Strengthen MEA Implementation – How Can Intergovernmental Organisations Promote Private Investment that Supports MEA implementation? The Example of the United National Environment Program (UNEP)". Presentation made at the OECD Workshop in Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

(b) How can the contribution of foreign investment to the solution of these countries' social and environmental problems be maximized?¹⁸

30. Many existing local and national fundraising mechanisms provide useful examples.¹⁹ Examples include tradable fisheries quotas in the EU and New Zealand and a pilot program for emission reduction trading in Canada. The revenue from environmentally related taxes averages roughly 2% of GDP in OECD member countries. Taxes on the purchase or use of motor vehicles and fuels, including taxes on petrol and diesel, generate most of the revenues (see the OECD/EU database for detail on existing environmentally related taxes). Other fiscal incentives include user fees on a variety of environmental services; charges on fuel, electricity, or car insurance premiums; small per capita charges added to state taxes; levies added to a range of consumer products; a special GEF stamp; and the sale of carbon credits or holding rights on a parcel of rain forest retailed at the consumer level. Practical examples in developing countries are as follows:

- (a) Payment for Environmental Services (PES): In Costa Rica, the town of Heredia has established an "environmentally adjusted water, in which the proceeds are used to pay landholders to maintain and reforest watershed areas. Costa Rican citizens, through an earmarked energy tax, also support the conservation of native forests and reforestation.²⁰
- (b) CDM: The Chinese government issued measures to levy a "tax" on the transfer of CERs guaranteed from CDM projects to finance projects addressing climate change and sustainable development.
- (c) Environmental Taxes: The Ecuadorian Institute for the Ecodevelopment of the Amazon Region, which is responsible for the sustainable development of the Amazon region, is financed with the income from taxes on oil extraction. The taxes are charged on the oil that goes through the pipeline from the Ecuadorian Amazon to Esmeraldas at the Pacific coast.²¹
- (d) Tradeable fishing quotas: The practice of allocating tradable fishing quotas is most likely to become more widespread, particularly in industrial monospecies fisheries. In some countries, demands may emerge for the international trading of quotas. If such permission becomes widespread in developed-country fisheries, it

¹⁸ GEF, *Financing for Environment and Sustainable Development in Developing Countries*. Ministerial Roundtable on Financing for Environment and Sustainable Development, first session, Monterrey, Mexico, 17-18 March 2002.

¹⁹ See, for example, Cléménçon, R. What future for the Global Environment Facility? *Journal of Environment and Development*, 15(1), 50-74, 2006; Koch-Weser, M.R.V B. Sustaining Global Environmental Governance: Innovation in Environment and Development Finance. 2002. In D. Esty & M. Ivanova (Eds.), *Global Environmental Governance* (pp 1-23). New Haven, CT: Yale University Press; OECD. *Environmental Taxes in OECD Countries*, Paris, France, 1995..

²⁰ Pagiola, S., and Platais, G. *Payments for Environmental Services: From Theory to Practice*. Draft. Washington, D.C., World Bank, 2005.

²¹ Huber et al., 1998 in International Experts Meeting on Protected Forested Areas Background Paper on "Financing Instruments for Protected Areas", San Juan, Puerto Rico, March 15-19, 1999.

seems plausible that entrepreneurs from developing countries will become buyers.²²

Which of these proposed instruments are likely to have the greatest impact?

31. Some private sector players have an interest in engaging in environmentally related issues to maintain their reputation, as well as their competitive advantage, through access to land, sea, and other natural resources; legal and social rights to operate; capital; insurance; and human resources. The business case for mitigating environmental risks, minimizing adverse effects on the environment, and investing in conservation and ecosystem restoration is based on a company's need to maintain its competitive advantage and long-term sustainability.

- (a) What incentives can be provided to business to contribute the financing required to meet the priority goals of the environmental conventions?***
- (b) How effective is dissemination of information, experiences, lessons learned, and best practices in promoting good policies, innovative financing, and replication of successful models?***

32. When global environmental benefits exist, should the future involvement of the GEF continue to include the following efforts:

- (a) Concretely supporting the use of market mechanisms at the national, regional, and international levels?***
- (b) Assisting in designing market mechanisms to enhance market access, trade, and technology transfer for developing countries without negatively affecting competitiveness of countries in international markets?***
- (c) Assisting countries with removing market and policy distortions, including subsidies to achieve environmental and development objectives?***

²² National Institute of Agricultural Extension Management (MANAGE) – An organization of Ministry of Agriculture, Government of India. *Manage Series On: WTO and Agriculture, Focus: Marine Products*, January, 2002.

ANNEX 1

Additional Financial Resources: Status, Gaps, and Options

1. The following financial mechanisms or options are provided in national biodiversity strategies and action plans:²³
 - (a) *Blending arrangements*: special budgetary fund, biodiversity (conservation) fund, ecological insurance funds, ecological bank with capital from ecological taxes and allocations
 - (b) *Taxation-related measures*: tax benefits and other incentives for donations towards biodiversity conservation; tax incentives for private companies financing biodiversity projects; taxation on exploitation of natural resources or levies on corporate users of biodiversity resources, such as forests and fisheries; airport taxes; royalties from wildlife, forestry, and fisheries industries
 - (c) *Administrative reform*: establishment and improvement of biodiversity prices and markets; incomes from privatization of property, including objects of biodiversity; strengthening of existing synergies among national programs (joint financing); system to return revenues generated in parks (tourism) to the protected area system; return of a proportion of the fees paid for fishing licenses and hunting permits to conservation activities
 - (d) *Prevention-based incomes*: fines and suits collected for damage to biodiversity, fines for pollution, sale of licenses and similar benefits, grazing licenses, mining permits, tourist licenses and permits
 - (e) *Revenue generation*: protected-area entrance and use fees, payment for environmental services, bioprospecting activities, commercial sales of sustainable timber,
 - (f) *Private sector initiatives*: creation of public–private partnership agreements, business sector sponsorships, scientific and research institutions, conservation membership clubs, enterprise funds, park adoption campaign
 - (g) *Altruism-based measures*: philanthropic groups; donations from social organizations, enterprises, and individuals
 - (h) *Locally based options*: local nongovernmental organizations, local budgets, community-based development and biodiversity funds, development of microcredit programmes
 - (i) *International innovations*: debt conversion and debt for nature swaps and market mechanisms of the Kyoto Protocol

²³ Executive Secretary for the Eighth Meeting of the Conference of the Parties to the Convention on Biological Diversity, *Financial Resources and Mechanism (Articles 20 and 21)*. Note. Curitiba, Brazil, 20-31 March 2006.

2. Funding options have been a subject for intensive discussions under the Commission on Sustainable Development since its inception. Although these discussions have been largely inconclusive, many ideas and concepts of various funding instruments, including the following, remain informative and relevant:
 - (a) *Economic and financial reforms*: environmental funds or biodiversity funds in the form of foundations, trusts, endowments, or grant-making facilities; venture capital; fiscal reform to discourage the excessive extraction and harvesting of national resources or mobilize substantial budgetary resources for biodiversity
 - (b) *Property rights*: biodiversity patents, property rights, land ownership, communal property rights, long-term concessions
 - (c) *Rent capture/resource pricing*: prospecting fees, full-cost pricing, and pricing of ecological functions
 - (d) *Subsidy reduction*: habitat protection subsidy, forest concession taxes
 - (e) *Green taxes*: environmental taxation targeted at leisure and consumption, resource depletion, and pollution, such as pollution taxes, natural resource taxation, and emission-trading schemes; reduction of distortionary taxes; differential land-use taxes; reduction and elimination of environmentally damaging subsidies on fossil fuels, electricity, agriculture, water, and pesticides, among other commodities
 - (f) *Environmental charges*: deforestation charges, pollution, emission and effluent charges, and impact fees
 - (g) *Innovations*: bioprospecting fees; ecotourism fees; scientific tourism fees; eco-funds; ecolabeling; watershed charges; tradable reforestation credit; relocation incentives; tradable development rights; tradable conservation credits; tradable forest protection obligation; tax incentives to promote private investment in biodiversity; environmental bonds; biodiversity offsets; debt-for-nature swaps that transform official or commercial debt of developing countries into finance for biodiversity; CDM; international tax on air transport or environmental-user charge on air transport; international carbon taxes on energy fuels; international foreign-exchange-transactions tax, which was initially advocated for its calming effect on speculation in financial markets.
3. At the urging of the UN General Assembly, many international organizations and governments have embarked on exploring innovative financing mechanisms for achieving the Millennium Development Goals (MDGs), including the UN Secretariat; the World Bank; the International Monetary Fund; the United Nations University; the OECD; and the Governments of Brazil, Chile, France, Germany, Spain, and the United Kingdom. Of most relevance to biological diversity are the discussions on financing global public goods; the options that have been put forward include the following measures:

- (a) *The International Finance Facility*, a temporary financing mechanism to “frontload” long-term, legally binding donor commitments made by donor governments in recent years
- (b) *Donation of Special Drawing Rights (SDRs)*, or creation of new SDRs
- (c) *Global taxes*: global environmental (carbon) tax; “Tobin” tax on currency transactions; general financial transactions tax; international aviation fuel or kerosene tax; maritime pollution tax; tax on arms sales; taxes on global commons; e-mail, Internet, or bit tax; surtax on multinational profits; surcharges on value added tax or income tax; charge on passenger and freight tickets; user charge based on aircraft emissions
- (d) *Voluntary contributions*: private donations, add-ons to routine bills, tax-based measures, global lotteries/global premium bonds, public–private partnership funds
- (e) *Public guarantees*
- (f) *Remittances*.

ANNEX 2

Examples of Partnerships between Private Sector Entities and between NGOs and the Private Sector

33. *Environmental Markets Association (EMA)*: The EMA, which comprises more than 150 companies, promotes market-based trading solutions for environmental management. Among its objectives is to promote the advancement and application of policy and regulation relevant to market-based emission trading systems.
34. *Equator Principles*: The Equator Principles, created by the IFC and several leading financial institutions, define an industry approach for financial institutions to determine, assess, and manage financial risk in project financing based on environmental and social considerations. The Principles are an attempt to encourage those who control the main streams of global financing (commercial bank lending, capital markets, export credits, and development financing) to take account of environmental goals and reduce financing of environmentally detrimental investments.
35. *Global Village Energy Partnership (GVEP)*: The GVEP is a voluntary partnership that brings together developing and industrialized country governments, public and private organizations, multilateral institutions, consumers, and others in an effort to ensure access to modern energy services by the poor. The partnership offers a number of innovative services, including finance facilitation.
36. *International Emissions Trading Association (IETA)*: The IETA comprises 103 international companies from OECD and non-OECD countries and is a voice for the business community on emissions trading. The objectives for the organization are to promote an integrated view of the emissions trading system as a solution to climate change; participate in the design and implementation of national and international rules and guidelines; and provide the most up-to-date and credible source of information on emissions trading and GHG market activity.
37. *Responding to Climate Change (RTCC)*: RTCC is an NGO that has strategic partnerships with several companies, industry associations, and government agencies. Key objectives are to help prove the business case for involvement with climate change response and to support multistakeholder partnership initiatives. The RTCC has 59 strategic partners from various sectors.
38. *The Katoomba Group (TKG)*: TKG, consisting of experts from forest and energy industries, research institutions, the financial world, and environmental NGOs, supports environmental service markets and payment schemes around the world and distills and disseminates lessons learned from them.
39. *UNEP Finance Initiative (FI)*: UNEP FI is a global partnership between UNEP and the private financial sector. UNEP FI works closely with about 200 financial institutions that are signatories to the UNEP FI Statements and with a range of partner organizations to develop and promote linkages between the environment, sustainability, and financial performance.

Additional Resources

Biller, D., and Sermann, K. *Financing Biodiversity*. Draft background paper for discussion at session V.2 of the OECD Global Forum on Sustainable Development: Conference on Financing Environmental Dimension of Sustainable Development. Paris, 24-26 April 2002.

Binger, A. *Global Public Goods and Potential Mechanisms for Financing Availability*. Background paper prepared for the Fifth Session of the Committee for Development Policy meeting, New York, New York. April 7-11, 2003.

Bishop, J. *Stimulating Private Investment in Biodiversity Conservation*. Presentation at the OECD Workshop in Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

CBD Executive Secretary. *Financial Resources and Mechanism (Articles 20 and 21): Additional Financial Resources: Status, Gaps and Options*. Paper prepared for the CBD COP Eighth meeting, Curitiba, Brazil, 20-31 March 2006.

GEF. *Additional Information to Support the GEF Strategy to Enhance Engagement with the Private Sector*. Paper prepared for the GEF Council Meeting, Washington, D.C., June 6-9, 2006.

GEF. *Financing for Environment and Sustainable Development in Developing Countries*. Paper prepared for the Ministerial Roundtable on Financing for Environment and Sustainable Development. First Session, Monterrey, Mexico, March 17-18, 2002.

Grigg, A. *Improving Co-operation and Encouraging Private Investment that Supports MEA Implementation*. Background paper for the OECD Workshop on Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

Ministry of the Environment, Finland. *Promoting Business Contribution to Addressing Global Environmental Problems*. Background paper for the OECD Workshop in Multilateral Environmental Agreements and Private Investment, Helsinki, 16-17 June 2005.

The World Bank. *Clean Energy and Development: Towards an Investment Framework*. Washington, D.C. 2006.

World Trade Organization. *Doha Ministerial Declaration*. Doha, Qatar, November 2004.