

CAPTURING THE VALUE OF ECOSYSTEM SERVICES: DEVELOPING MARKETS FOR ENVIRONMENTAL ASSETS

(March 13-14, 2002, Stationers' Livery Hall, London)

Overview

The integrity of natural ecosystems is now recognized as being crucial to the health of global financial and capital market systems. Bringing together appropriate investors, buyers and sellers will help to maintain ecosystem services and assets, and will ensure continuing global prosperity and environmental security. A number of markets already have started to trade waste emissions, water rights and carbon, as well as creating attractive investment opportunities through the securitization of carbon sinks.

The Katoomba Group process, begun in 1999 in Australia, is helping to develop an understanding of the interplay of public and private sector benefits created by natural asset markets. Like earlier Katoomba gatherings, this meeting in London provided a forum for bringing together pioneer market developers with early-stage investors, analysts and risk managers. Over 40 innovators, from 10 countries in North America, South America, Europe and Australia, shared their experience with 182 participants in the public conference on March 13 and 75 participants in the private seminar held on March 14. A brief overview of the Conference and Seminar are presented below, together with hyper-links to presentation material.

Green Investment Opportunities

Michael Jenkins, Executive Director of Forest Trends, welcomed the Conference participants on behalf of the co-hosts, the Katoomba Group and Forest Trends, and moderated the morning session.

Patricia Daly, Executive Director of the Tri-State Coalition for Responsible Investment in the U.S., and advisor to over \$300 billion of faith-based investors, presented the opening keynote address. She emphasized the growing power of engagement and her personal experiences with major companies like General Electric and Exxon.

Dr. Andrew Dlugolecki of Aon Global Risks, previously with CGNO—the world's largest insurer-- presented an overview of the hazard of environmental liabilities. He discussed the implications of climate change to the insurance sector and described their enormous influence to both combat the causes of climate change and work on creative solutions to mitigate its effects.

David Pearce, economics professor at University College of London, described advances in valuation of natural environments, and application of option values in investment theory to justify delaying forest loss to permit learning. He also emphasized the increase in underwriting risk due to environmental causes, especially global climate change, and the lack of warning of risks. Because business has a long-term perspective, the business sector is well placed to promote action on key environmental problems.

The first set of case examples highlighted the investment opportunities of managing forests for joint environmental and product values. **David Brand**, Director of Carbon Programs at Hancock Natural Resource Group, assessed innovative investment opportunities from forest management in New South Wales, Australia, to improve water quality, sequester carbon and protect

biodiversity. In the future, for many forests environmental services will be the principal product, with timber as a by-product.

Jeffrey Leonard, President of Global Forest Products, described the “green timber” investment in South Africa based on company principles of “conservation, cash flow and community”. GFP has 100,000 hectares of pine forest now being managed and processed under Forest Stewardship Council certification; has the largest sawmill on the African continent; has strong social investments with employees and communities; and high estimated long-term returns to investors.

Ken Newcombe, Senior Manager and Fund Manager of the Prototype Carbon Fund of the World Bank described their experience to date with pilot forest projects for carbon sequestration. He introduced the new BioCarbon Fund that is being designed to jointly meet objectives of carbon sequestration and the Convention on Biodiversity Conservation and the Convention to Combat Desertification, while meeting Bank mandate to reduce poverty.

Water, Biodiversity and Shareholder Value

Robert Rubinstein of Brooklyn Bridge, host of the Triple Bottom Line Conference, moderated the afternoon program highlighting investment programs for water and biodiversity conservation.

Albert Appleton, former Commissioner of the New York City Department of Environmental Protection and present Director of the New York City Water and Sewer System, described the experience of New York City investment in watershed protection. As an alternative to costly infrastructure to improve water quality, the City developed a program to pay upstream farmers to modify their management of the forest and farming landscape.

Stephen Bolt of Sustainable Development, awg plc, described a programme to develop water resources in East Anglia, UK based on principles of sustainable development, in the context of a complex regulatory environment.

John Forgach, Director and CEO of A2R Brazilian Environmental Fund Managers described his company’s “green investing” in Latin America. Projects include rehabilitating wild acai palm resources and processing, organizing the Amazon’s first certified plywood exports, and sustainably managing babacu palm stands for multiple products, together with local communities and companies.

James Cameron, Partner of the law firm Baker, McKenzie, discussed the legal and regulatory requirements of new markets for environmental services. Key factors include defined property rights (e.g., over sequestered carbon) and private contract rights, and regulations that make environmental costs explicit (e.g., companies’ carbon exposure).

Keith Jones, the managing director of the Morley Fund Management, described the growth of Socially Responsible Investment funds, and their advantages in terms of management, returns, and role in avoiding or mitigating business risks. He demonstrated the use of a Sustainability Matrix in judging companies as investment prospects, and working with companies to enhance their economic, environmental and social performance.

Journalist **Eugene Linden** closed the public Conference with an assessment of the evolution of environmental policy agendas in the United States and the convergence of “brown” and “green” agendas. He concludes that the private sector needs to play a greater leadership role in pursuing public environmental policy reform.

The Mechanics of Doing the Deal

Michael Jenkins of Forest Trends welcomed participants to the Seminar, which was designed to provide practical guidance for developing environmental service-related investments. The Seminar was organized into thematic presentations and three Panels.

The first topic was on valuation of ecosystem services for commercial purposes. **Peter Crane** of the Royal Botanic Gardens at Kew opened with an overview of the commercial value of Nature's intellectual property, emphasizing values to industries such as agriculture, horticulture and pharmaceuticals. **Katherine Ellison**, a U.S. environmental journalist, described the origin of her forthcoming book with ecologist Gretchen Daily on "The New Economy of Nature" which highlights innovative field projects and documents the early Katoomba process.

A Panel, moderated by **Adam Davis** of EPRI, shared diverse aspects of the valuation of environmental services. **Pedro Moura Costa** of EcoSecurities discussed the potential value of investments in carbon offsets to enhance returns from forestry. **Kerry ten Kate** of the Royal Botanic Gardens, Kew emphasized that forest environmental services are presently a "buyers' market" and discussed constraints to wider benefit-sharing of these economic values. **Doug Lashley** of GreenVest described investments in developing ecological assets in the United States, including wetlands, stream corridors and special habitats, and the use of wetland mitigation banking. **Josh Bishop**, an economist with the non-profit International Institute for Environment and Development briefly summarized the results of a global study of 280 examples of markets or payments for environmental services, describing their geographic and institutional characteristics.

The second topic of the day was on managing risks associated with environmental assets. **Wolfgang Ortloff** of SwissRe re-insurance company opened with a presentation of risk management issues in carbon emission offset trading with and without the Kyoto Protocols, and briefly touched on the status of new markets for weather insurance.

A Panel moderated by **Phil Cottle** of the PartnerRe re-insurance company, discussed risk management strategies. **Justin Mundy** of Aon Risk Consulting discussed ways of managing political and environmental risks, and described the role of insurers in risk analysis and reduction. **John Earhart** of the Global Environment Fund drew lessons on managing risk from GEF's experience in 25 countries, emphasizing the importance of linking community, conservation and cash flow objectives; proper structure of the deal opportunities to dollarize services, avoiding commodity risks, insurance; hedge contracts; and portfolio diversification. **Mark Campanale** of Henderson Investors discussed perverse environmental outcomes from forestry investments associated with the present structure of capital markets. He noted key variables that investment analysts should be examining more carefully, and noted issues of international governance requiring attention. **Louis Borstin** of the International Finance Corporation described their role in managing risks in emerging markets, with a focus on the "quadruple bottom line: rate of return, environment, social development, and economic development." He discussed how to make the business case for investment in sustainable development.

Three speakers then discussed the roles of government, NGOs and ethical investment organizations in developing markets for environmental services. **José Madeira**, Principal Administrator of the Directorate-Generale for the Environment of the European Commission presented an overview of evolving EC policy recognizing the value of environmental services. Key areas are rules on liability for environmental damage, environmental disclosure, and development of the legislative framework for carbon emissions trading. **Michael Totten** of the

Center for Environmental Leadership in Business of Conservation International illustrated the role of environmental NGOs in market development with examples from Conservation International's work on conservation concessions, biodiversity-friendly commodities, and carbon offset projects to restore degraded habitats. **Alois Flatz** of Sustainable Asset Management illustrated their role in encouraging good environmental performance by companies through their labeling program which enhances reputation value.

The final Panel of the Seminar was on the theme of the "green investor," moderated by **Brian Pearce** of Forum for the Future. **Noel Smyth** of Morley Fund Management noted that 25% of the world's capital market is tied up in the brand value of organizations. Their Fund goes beyond negative and positive screening to invest in companies contributing to sustainable development with combined environmental and social impacts. **Frank Vorhies** of IUCN described a program promoting African biodiversity businesses. The program combines venture capital and philanthropy and relies on creative partnerships to link producers with high-value markets. **Ben Feldman** of Natsource emphasized the importance of building standardized markets for environmental services, including the potential to transfer title to services among market actors. **Fiona Gadd** of Arthur Andersen described an initiative of five leading accounting firms to develop guidelines for financial accounting of carbon in new carbon emission offset markets. **Jon Shopley** of Future Forests described his company's investments in forest-based carbon sequestration, for sale of offsets to organizations seeking to mitigate carbon emissions from their own activities to enhance their brand value. **Steve Howard** of URS Corporation highlighted the critical importance of private sector investment in pursuing sustainable development, especially in the developing world. As an example, he described efforts by the garden furniture industry in the UK to secure supplies from legal, sustainably managed community forests.