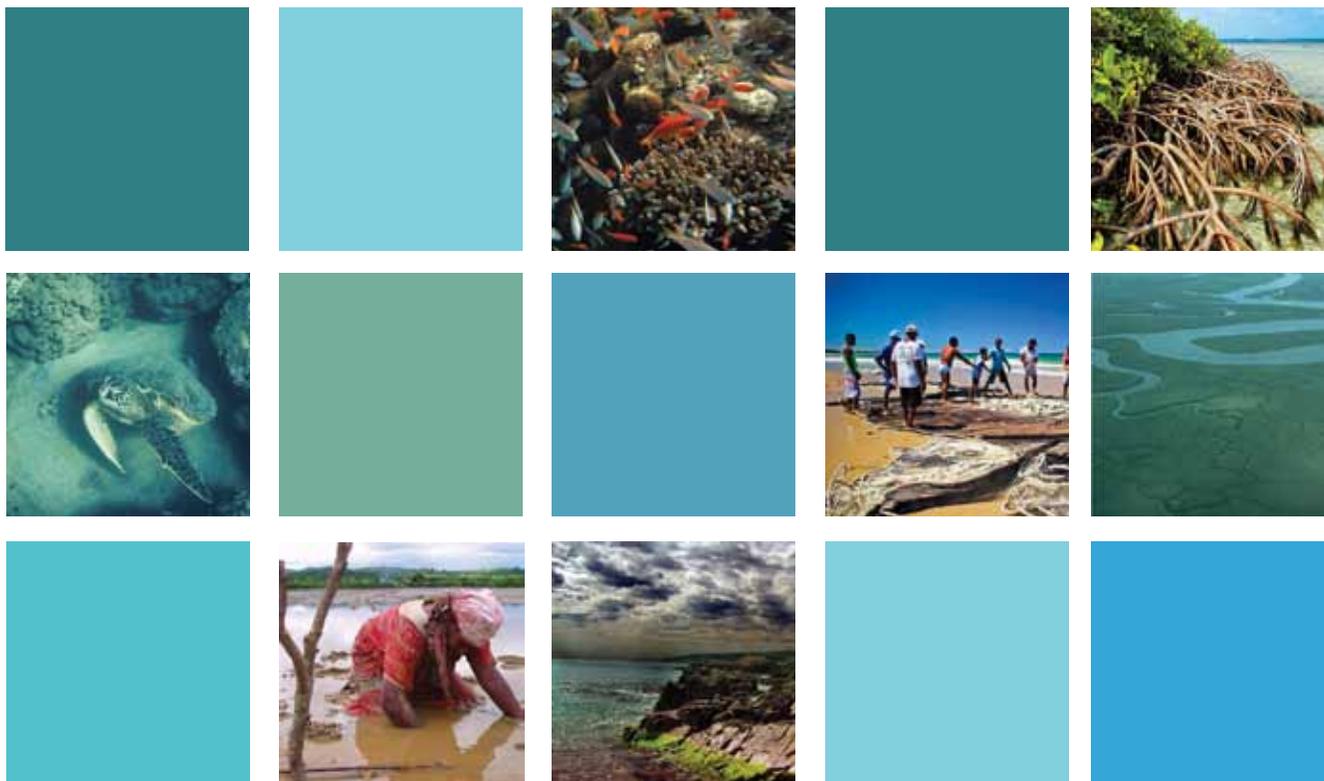




Payments for Ecosystem Services: Getting Started in Marine and Coastal Ecosystems

A Primer



***Payments for Ecosystem Services:
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About Forest Trends

www.forest-trends.org

Forest Trends is an international, non-profit organization that focuses on market-based mechanisms because of their powerful and lasting means of: ensuring the maintenance of ecological functions and services provided by forests and other ecosystem services; generating economic benefits; and promoting the equitable distribution of benefits among diverse stakeholders. Our approach integrates the fundamental dimensions of ecology, economy, and equity because our goal is for impact of a scale that is meaningful globally.

Forest Trends, originally focused on forest ecosystems, now covers a broad range of ecosystem services, from forest carbon to biodiversity to watershed and most recently to marine environments. The Forest Trends family of initiatives all share in the vision to harness the power of markets as innovative financing mechanisms for conservation.



About the Marine Ecosystem Services

www.forest-trends.org/mares

The Marine Ecosystem Services (MARES) Program builds on the core work Forest Trends has done in terrestrial ecosystems and conventional markets, aiming to facilitate the development of innovative coastal and marine market mechanisms for marine conservation around the world. MARES has developed the conceptual underpinnings for doing Payments for Ecosystem Services (PES) markets and biodiversity offsets in the marine realm and is beginning to field testing these ideas with on-the-ground pilot projects, sharing the resources and tools developed with the wider conservation community. The four ecosystem services on which we focus are marine biodiversity, water quality, shoreline stabilization and beach production and maintenance, and fisheries production/nursery habitats.

The work of the MARES Program cuts across the different program areas at Forest Trends. We are working with the Business and Biodiversity Offset Program to develop guidelines for marine biodiversity offsets, with the Ecosystem Marketplace to explore biodiversity banking for marine species and PES in general, with the Chesapeake Fund to look at watershed approaches to water and marine conservation, and with the different regional programs of Forest Trends and the Katoomba Group to explore and develop market-based mechanisms for coastal and marine conservation, especially mangroves conservation and restoration, worldwide.



About the Katoomba Group

www.katoombagroup.org

The Katoomba Group seeks to address key challenges for developing markets for ecosystem services, from enabling legislation to establishment of new market institutions, to strategies of pricing and marketing, and performance monitoring. It seeks to achieve the goal through strategic partnerships for analysis, information sharing, investment, market services and policy advocacy. The Katoomba Group includes over 180 experts and practitioners from around the world representing a unique range of experience in business finance, policy, research and advocacy.

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Preface

Healthy and robust marine ecosystems provide the underpinnings for profitable industries and support coastal communities throughout the world. In addition, oceans play crucial roles in regulating the atmosphere and modulating weather, storing carbon, cycling nutrients, and providing other ecosystem services. Coastal areas provide essential resources, buffer land from storms, and provide living space for almost half of the global population. Yet today many of these ecosystems and the services they provide are under threat. Indeed, the Millennium Ecosystem Assessment — the most comprehensive study assessing the value of the world's systems to date — concluded that more than 60% of the world's ecosystems are being used in ways that cannot be sustained.

Given these trends, what if there were a way to determine the economic value of the services that ecosystems provide? What if it were possible to encourage beneficiaries to contribute their fair share to restoring and maintaining the flows of these services? Could such an approach create an incentive for restoration and sustainable use? Could this be a way to appreciate and protect the natural world's non-market values and get them into the marketplace?

There are many avenues for utilizing markets to drive marine and coastal resource use towards greater sustainability, informed by the progress made in non-marine markets such as carbon and water quality trading, or wetlands, mitigation, and species banking. Indeed, all of the diverse schemes highlighted in this primer are built upon two simple premises: that ecosystem services have quantifiable economic value, and that this value can be used to entice investment in restoration and maintenance.

So-called Payment for Ecosystem Service (PES) deals are emerging wherever businesses, public-sector agencies, and nonprofit organizations have taken an active interest in addressing particular environmental issues. These schemes provide a new source of income for land management, restoration, conservation, and sustainable-use activities.

The expansion of markets and market-like mechanisms to the marine and coastal realm has generated excitement among conservationists, government authorities, and the private sector alike. Immense opportunities exist to sustainably finance the very conservation that is needed to increase the profitability of business and secure the well-being of humankind everywhere.

This primer offers guidance on how to assess the potential for marine and coastal PES and provides pointers for designing and planning PES transactions. Specifically, it describes:

- the opportunities and risks of PES schemes, to enable accurate feasibility assessments for applying these new market-based mechanisms;
- steps to developing PES projects;
- considerations of PES for poverty reduction; and
- resources for additional reference and reading.

We at the Marine Ecosystem Services Program of Forest Trends, working with our affiliated initiatives Katoomba Group and Ecosystem Marketplace, seek to increase the number of organizations and communities exploring PES and, where appropriate, applying PES to further their goals for conservation, restoration, and sustainable resource management. We hope that this piece will catalyze such efforts and, thereby, provide sustainable financing for effective management of our marine and coastal environments around the world.

Mr. Michael Jenkins
President
Forest Trends and The Katoomba Group

Dr. Tundi Agardy
Director
MARES Program, Forest Trends



Executive Summary

This primer is designed to provide you with a solid understanding of what payments for ecosystem services (PES) are and how PES deals work in the marine environment. It is intended for an audience interested in exploring the potential of PES — either as prospective PES sellers themselves or as staff of organizations that work directly with coastal communities or coastal and marine resource owners who may be interested in PES. The primer should be read *before* you set out to design a PES deal, as it provides guidance on conditions under which PES is most relevant and likely to succeed, as well as any associated risks to consider. It should also be read sequentially, as concepts defined in the early pages are built upon later.

In the first section, **Marine Ecosystem Services & Emerging Markets**, you will find a detailed review of basic PES concepts, including:

- What is an ‘ecosystem service’?
- What are the basic types of payments for marine ecosystem services?

The second section, **A Step-by-Step Approach to Developing Marine Payment for Ecosystem Service Deals**, is the core of primer. Here, you will learn the four key steps to developing PES deals:

- Identifying Ecosystem Service Prospects and Potential Buyers
- Assessing Institutional and Technical Capacity as well as Access
- Structuring Agreements
- Implementing PES Agreements

Each of these steps is broken down in an effort to introduce potential sellers of ecosystem services to the details of PES deals. Throughout the document, there are numerous examples to illustrate components of the process. At the end of this section, you will find a few PES design tools to help you get started.

In the third section, **Opportunities, Risks, and Ideal Conditions for Poverty Reduction**, you will learn how PES deals can offer impoverished coastal communities an opportunity to augment their income as stewards of the coasts and oceans by implementing practices to restore and maintain ecosystem services. You will also learn the pitfalls of such schemes — the danger of trying to implement PES where it is not appropriate, for example, or the potential of liability concentrated on those who can least afford it. You will also learn how to evaluate outside advisors, and when to consult them. This section ends with a few words on the importance of honest brokers in making it possible for poverty reduction through PES to reach those who most need it — low income residents of coastal areas around the world.

As a complement to this primer, the Ecosystem Marketplace (www.ecosystemmarketplace.com) has issued an introductory overview of markets and payments for ecosystem services as well as an extensive glossary. We urge readers interested in further information to review the website. We hope that these materials will enable the potential of coastal and marine PES to be realized at a scale that is meaningful for both people and seascapes around the world.



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