Finance Tools for Coral Reef Conservation: A Training Guide Payments for Ecosystem Services

Developed by the Conservation Finance Alliance and Wildlife Conservation Society for the International Coral Reef Initiative

Content drawn from Finance Tools for Coral Reef Conservation: A Guide (2018) Venkat Iyer, Katy Mathias, David Meyers, Ray Victurine and Melissa Walsh

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Photo: Yen-YiLee, Coral Reef Image Bank



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Payments for Ecosystem Services - Overview

- Definition: A range of schemes through which the beneficiaries, or users, of ecosystem services provide payment to the stewards, or providers of those services.
- Value: Revenue streams from those benefiting from ecosystems are captured and directed to those supporting those ecosystem.
- Economic Model: user pays principle.
- Other names: "Payments for Environmental Services," "PES."
- Examples of Ecosystem Services from coral ecosystems
 - Flood prevention and protection from storm surges.
 - Marine life habitat fisheries production.
 - Prevention of saltwater intrusion

Payments for Ecosystem Services – How does it work?

- Stewards of an ecosystem receive financial payments for continued or improved maintenance and preservation of that ecosystem.
- Beneficiaries of the ecosystem services (ES) motivated by cost savings and economic benefits, make payments in exchange for continued services.
- PES most effective when ecosystem services that are valued in economic and financial terms.
- Because most ES are not traded in markets, the intervention of a regulatory agency or intermediary Fund is often needed to create these markets.



Payments for Ecosystem Services -Conservation Activity Relevance

- Coral Reefs provide a wide range of Ecosystem Services that could benefit from a PES scheme, including
 - Fisheries production
 - Buffering from extreme weather and storm surge
- Payments for Ecosystem Services can help the creation, development, and management of MPAs
- Coral Reefs also represent valuable and unique tourist attractions. A healthy reef would translate into revenue from tourism.
- Some beneficiaries who pay into the PES scheme focused on coral reef conservation would benefit through dividends in the form of increased tourism and tourist spending

Payments for Ecosystem Services -Stakeholders

- The buyer/beneficiary of an ecosystem service
- The steward (provider) of an ecosystem service
- Public Authority
- Intermediary / Funds manager
- Affected community

Payments for Ecosystem Services -Feasibility Assessment

- Feasibility Assessment of a PES should look at (or produce when missing)
 - The economic valuation of ecosystem services
 - The legal and institutional framework for PES transactions
 - The level of organization of stakeholders
 - The "capacity to pay" of beneficiaries and "willingness to accept" of providers
- A buyer must be identified, the market conditions understood, and the service provider legally recognized
- It is important that the financing structure of any PES is both sustainable and sufficient – it must provide a "win-win" opportunity for both the supplier and the buyer(s) of the service

Payments for Ecosystem Services – Revenue Potential

- The monetary value of PES varies widely based on the size / properties of the ecosystem and the willingness to pay of beneficiaries
- The value of global annual transactions of PES is estimated between US\$36-42 billion (with a very broad definition)
- The monetary value of PES depends on whether the scheme is voluntary or compulsory, and the power of the supervising entity to enforce the PES system
- The largest PES are found in water services

Payments for Ecosystem Services – Marine & Coastal Examples

There are no current examples of PES for Coral Reefs and limited PES for marine environments – all at small scale.

- Mangroves provide shade for coral reefs, can limit bleaching, and offer erosion control and buffering of waves – protecting mangroves through PES payments can directly benefit coral reef ecosystems
- Price premiums for services that maintain fish populations
- Hotels in Quintana Roo (Mexico) pay for ecosystem services in supporting premiums for reef insurance schemes that provide disaster protection