



Global Overview of Biodiversity Markets, Payments, & Offsets

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An Introduction to Markets & Payments for Ecosystem Services
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Outline of presentation

- Evolution of conservation approaches
- The case for direct payments for biodiversity conservation
- Overview of the types of payments for biodiversity conservation
- Examples of some of the different types of payments for biodiversity conservation (global and Africa specific)
- Challenges, constraints, opportunities
- First advert for PRESA

Evolution of conservation approaches

- 'Parks, fines and fees' approach to conservation is longest-term and still the mainstay of conservation
- Weakness of state management and concerns about equity causing increased emphasis on devolution of authority for NRM to decentralized agencies and communities
- Integrated conservation and development projects (ICDPs) in areas of high conservation value
- Greater expectation of private sector accountability
- Recognition of the need for landscape and ecosystem approaches to conservation (eg IUCN, WWF)

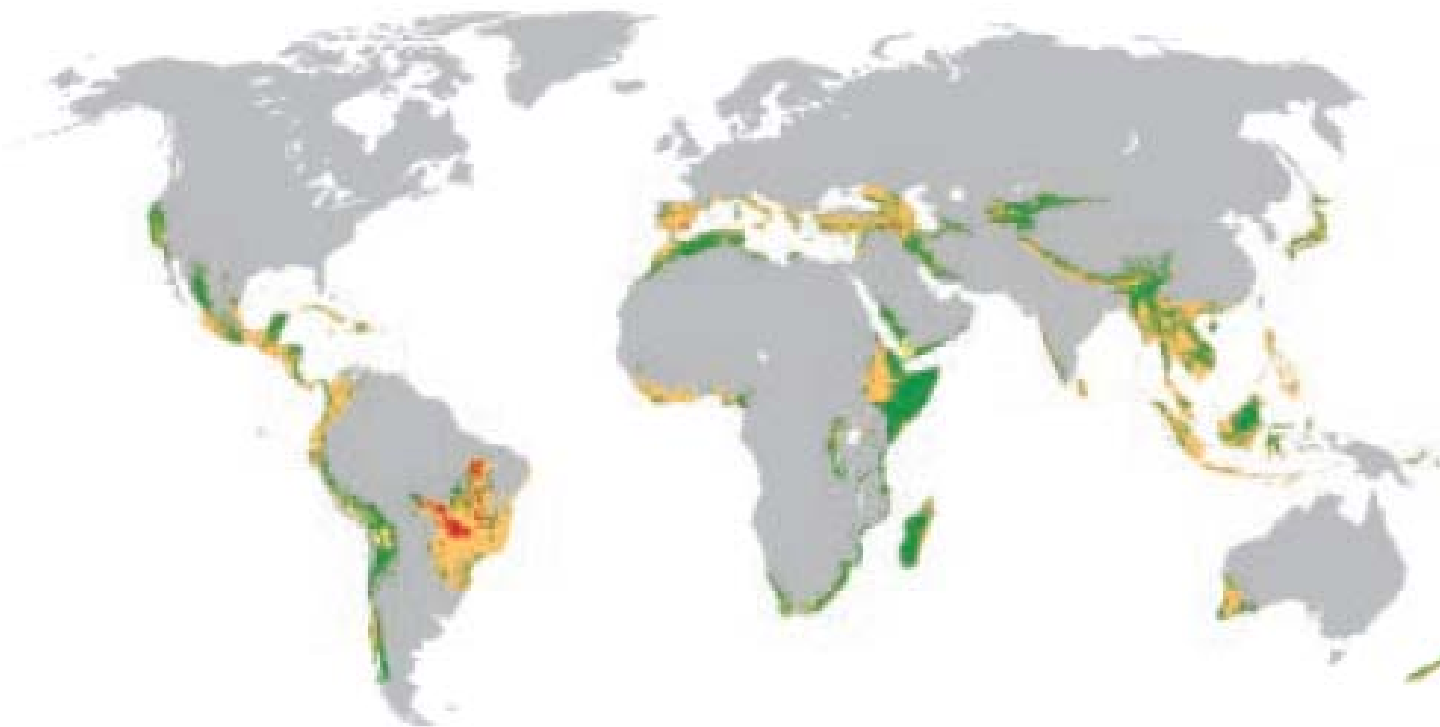
The case for direct payments for biodiversity conservation

- Limited evidence of successful conservation through ICDPs
- Limited public funds for conservation – market mechanisms can make efficient use of those funds (Paul Farraro)
- Direct payments consistent with the benefit sharing objective of the Convention on Biological Diversity

Article 11 of the CBD: "*...as far as possible and as appropriate, adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.*" (CBD, 1992).

- Attention to the world's biodiversity hotspots concentrating attention on the importance of farmlands for biodiversity conservation

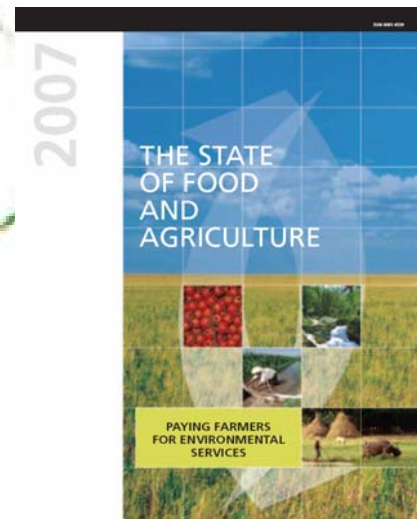
Biodiversity hotspots and cropland



- Biodiversity hotspots in croplands with low agricultural suitability
- Biodiversity hotspots in other croplands
- Biodiversity hotspots in other areas with low agricultural suitability
- Other biodiversity hotspots



Ulugurus Mts, Tanzania



Source: FAO State of Food and Agriculture Report, 2007.

Management options and coordination requirements for three environmental services

	ENVIRONMENTAL SERVICE	FARM-LEVEL MANAGEMENT OPTIONS	LANDSCAPE-LEVEL MANAGEMENT OPTIONS	DEGREE OF COORDINATION REQUIRED ¹
Wild biodiversity conservation	Protection of habitat for wild terrestrial species	Breeding area protection, maintenance of pure water sources, wild food sources in and around farm plots, timing of cultivation, increased crop species/varietal diversity	Natural area networks in and around farms, public and private protected areas	Moderate
Wild biodiversity conservation	Connectivity for mobile species	Farm hedgerows, windbreaks, removal of impenetrable barriers	Natural area networks in and around farms	Moderate to high
	Protection of threatened ecological communities	Restoration or protection of farm patches of natural habitat	Maintenance of corridors connecting natural habitat fragments through farm and other lands	Moderate to high
	Protection of wild species	Elimination of threats from toxic chemicals, breeding area protection, non-lethal pest control practices	Barriers to exclude wildlife from farmlands, compensation to farmers for wildlife damage to stocks and crops	Low to moderate
	Protection of habitat for aquatic species	Prevention of waterway pollution by crop and livestock wastes and agrichemicals, protection or restoration of on-farm wetlands	Natural revegetation along stream banks, protection or restoration of wetlands	Low to moderate



TABLE 12

Types of payments for biodiversity protection

PURCHASE OF HIGH-VALUE HABITAT

- Private land acquisition (purchase by private buyers or NGOs explicitly for biodiversity conservation)
- Public land acquisition (purchase by a government agency explicitly for biodiversity conservation)

PAYMENT FOR ACCESS TO SPECIES OR HABITAT

- Bioprospecting rights (rights to collect, test and use genetic material from a designated area)
- Research permits (rights to collect specimens, take measurements in an area)
- Hunting, fishing or gathering permits for wild species
- Ecotourism use (rights to enter an area, observe wildlife, camp or hike)

PAYMENT FOR BIODIVERSITY-CONSERVING MANAGEMENT

- Conservation easements (owner paid to use and manage a 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 a 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)
- 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-AND-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)
- 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 TO BIODIVERSITY-CONSERVING BUSINESSES AND PRODUCTION PROCESSES

- Business shares in enterprises that manage for biodiversity conservation
- Biodiversity-friendly products (ecolabelling)
- Niche market development for products with valuable agricultural biodiversity

Source: Scherr, White and Khare, 2004.



- Private land acquisition (purchase by private buyers or NGOs explicitly for biodiversity conservation)
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Examples:

- frequently associated with The Nature Conservancy
- Ducks Unlimited purchase of wetlands in Western Canada
- Consortium of concerned individuals around Tucson, Arizona
- Ecotrust purchase in the Rwenzori Mountains, Uganda
- Government purchase (with support from WWF, World Bank, Finland) of land in the Derema Corridor, East Usambaras, Tanzania





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Bioprospecting rights:

- **Some high-profile examples of pharmaceutical companies purchasing bioprospecting rights in Latin America**
- **Some controversial cases in South Africa**
- **Generally more hype than action**

Hunting rights:

- **CAMPFIRE programme in Zimbabwe**
- **Community conservancies in Namibia**

Ecotourism:

- **Ecotourist ranches in Kenya (eg Lewa)**
- **Community ecotourism in Kenya (eg IL Ngwesi Group Ranch)**

Examples:

- **Conservation Reserve Program in the United States**
- **National Payment for Forest Conservation Programs in Costa Rica and Mexico**
- **Community concessions to indigenous groups and rural communities in many countries – eg. Cameroon, Indonesia, Brazil**
- **Conservation easements – Kitengela Wildlife Lease Program around Nairobi National Park (see Yatich et al)**
- **Management contracts for in situ conservation of crop genetic resources: GEF-funded project in Ethiopia “*A dynamic farmer-based approach to the conservation of African plant genetic resources (GEF)*”**



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Biodiversity Offsets:

- *“ 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 minimise harm to biodiversity.”*

Source: Kerry ten Kate, Josh Bishop, Ricardo Bayon presentation to the Katoomba Africa meeting in Uganda, September 2005.



The business case for investing in biodiversity offsets

Legal requirements:

- Law that mandates offset (US, EU, Brazil, Australia)
- Law that facilitates offset (EIA, planning law, concession agreements, Uganda Environment Act)

The business case for voluntary biodiversity offsets:

- License to operate, reputational risk, regulatory goodwill
- Access to capital, lower costs of compliance
- New market opportunities, competitive advantage
- Influence regulation
- Employee satisfaction and retention
- Better conservation outcomes

(Source: Kerry ten Kate, Josh Bishop, Ricardo Bayon presentation to the Katoomba Africa meeting in Uganda, September 2005.)

Examples of biodiversity offsets

Mandated offsets:

- Wetland mitigation banking in the United States: a “bank” of wetlands habitat is created by restoring or preserving wetlands. Shares of the bank are then made available to developers of wetlands habitat, who must “buy” mitigation as a condition of government approval.
- EU Habitats Directive: developers can offset any damage that projects may have caused on designated conservation priority sites by undertaking positive conservation measures in other conservation priority sites.

Voluntary offsets:

- Chad to Cameroon oil pipeline project: ExxonMobil, Petronas, and Chevron, with the World Bank, established an environmental foundation, two new national parks and a plan to provide benefits to indigenous people who may be affected by the project, as a means of offsetting potential social and environmental damages of the project (ten Kate, Bishop and Bayon, 2004).



- Business shares in enterprises that manage for biodiversity conservation
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- Niche market development for products with valuable agricultural biodiversity

Source: Scherr, White and Khare, 2004.

Examples:

- South Africa Biodiversity and Wine Initiative certifies vineyards that implement practices consistent with biodiversity (BWI): 50,000 hectares and 76 producers by 2007.
- Kenya Ecotourism Association rating scheme (gold, silver, bronze)
- Starbucks Café practices (eg Njeri area of Kenya)
- Rainforest Alliance Certification for coffee, cocoa, fruits and lowers
- Forest Stewardship Council covers 7% of total global forest area, mostly in developed countries.
- Butterfly industries: Arabuko/Sokoke Kipepeo in Kenya, Amani Nature Reserve in Tanzania
- Nature Harness etc wetland product baskets with women's groups in Uganda

Challenges and constraints in Africa

Some of the factors hindering the development of biodiversity markets.

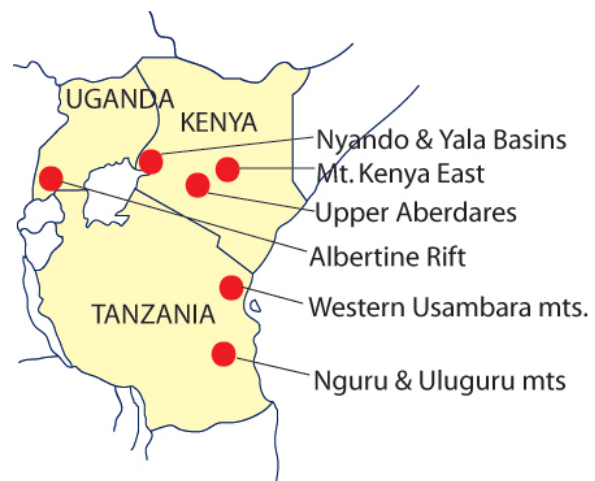
1. Many benefits of biodiversity will arise in the future and are highly uncertain.
2. Market demand is mainly driven by philanthropy, consumer and voter preference and regulation.
3. Public finance for conservation is highly constrained and contested in Africa.
4. It is difficult to define “units of biodiversity” for the purpose of carrying out transactions.
5. The conservation community continues to debate the value of conservation funds being expended in agricultural settings, where native biodiversity may already be significantly degraded, or whether investment should focus on lands that have been less disturbed.
6. Threats to eco-tourism due to high fuel costs, concerns for carbon footprint, political instability.
7. In the early phase, PES mechanisms are relatively knowledge intensive.

Opportunities in Africa

Some of the factors creating new opportunities for biodiversity markets:

1. Global attention to the potential for forest conservation and afforestation to mitigate greenhouse gas emissions.
2. Greater consumer concern for the origin of products and the value chain that produce those products (eg Starbucks)
3. Greater shareholder scrutiny of the sustainability of business enterprises and the biodiversity impact of business practices.
4. Environmental and water regulations and decentralizaion processes are creating greater space for instruments such as biodiversity offsets.
5. Many donors, multi-lateral environmental agreements and UN agencies showing interest in propoor PES.
6. Policy makers showing interest in new instruments.

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