

Principles of Payment for Environmental Services in REDD+ context

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Overview

- Theoretical background
- Policy instruments
- Definition of Payment for Environmental Service
- Ecosystem services
- Success factors for a PES scheme,
- Pro-poor PES
- Limitations of PES

Economic theory on PES

- Environmental degradation is continuing unabated (quality of forest decreasing; increase in water bodies without fish)
- Deforestation, habitat loss, species extinction, increase in air & water pollution,
- Unplanned development, land slides, unsustainable extraction of ground water, over fishing, etc.
- From economic perspective, market failures is the cause to environmental degradation

Market failure characteristics

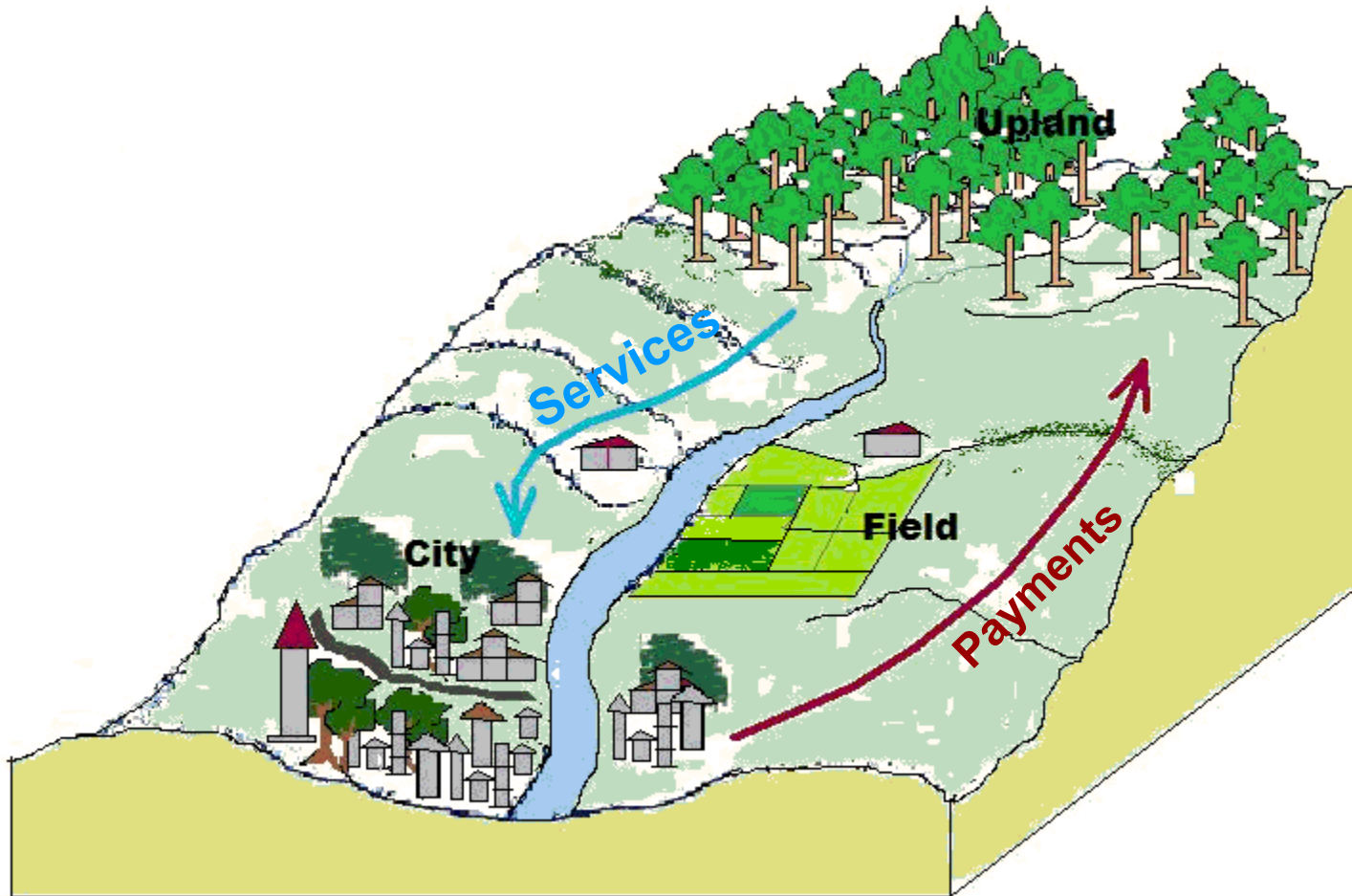
- Open access resource
 - Private cost of using more or polluting more is less than social cost incurred by entire community. E.g. fishing in river
- Externalities prevail
 - Cost that is not incurred by users or polluters but paid by the society. E.g. emitting CO₂
- Failure of provision
 - Not possible to exclude other from using the services. E.g. clean air

All these characters pertain to the Environment Sector. And because of this trait, environment degradation continues.

Policy instruments for environment management

- Regulatory instruments
 - Command & control approach through bans, restrictions, etc. imposed by government
 - Either comply or be punished
- Market instruments
 - Incentive based approach or market based rely on tradable permits schemes, tax rebates, carbon credits, fines, etc. directed by market.
 - Is flexible and cost effective
 - This instruments tries to correct market failures
- Combination of both
 - The middle path, uses both instruments e.g. taxes

Definition: Payment for Environmental Services



Ecosystem Services

BENEFITS THAT PEOPLE OBTAIN FROM ECOSYSTEMS

Provisioning services

Products obtained from ecosystems

- Food
- Fresh water
- Fuel wood
- Fiber
- Biochemicals
- Genetic resources

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Regulating services

Benefits obtained from regulation of ecosystem processes

- Climate regulation
- Disease regulation
- Water regulation
- Water purification
- Pollination

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Cultural services

Non-material benefits obtained from ecosystems

- Spiritual and religious
- Recreation and ecotourism
- Aesthetic
- Inspirational
- Educational
- Sense of place
- Cultural heritage

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SUPPORTING SERVICES

Services necessary for the production of other ecosystem services

- Soil formation
- Nutrient cycling
- Primary production

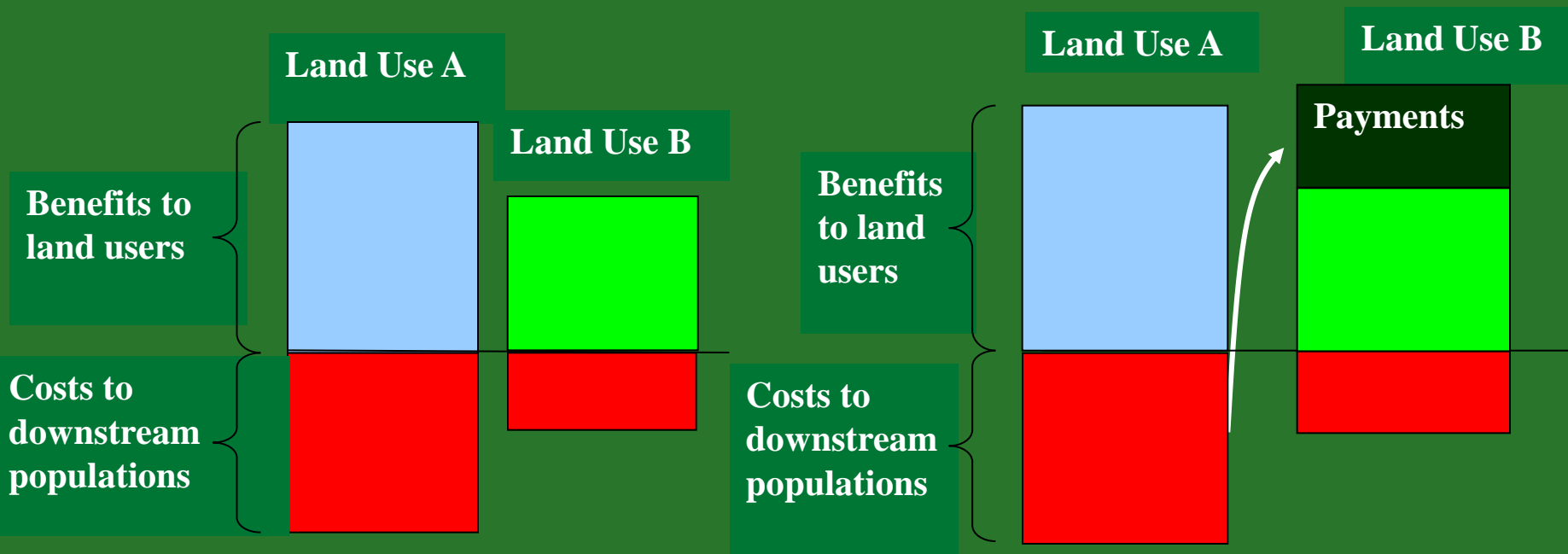
LIFE ON EARTH-BIODIVERSITY

Ecosystem Services (contd.)

Millenium Ecosystem Assessment Facts and Figures

- 60% of world's ES have been degraded
- Of 24 evaluated ecosystems, 15 are being damaged
- About a quarter of the Earth's land surface is now cultivated.
- People now use between 40 % - 50 % of all available freshwater running off the land. Water withdrawals -doubled over the past 40 years.
- Over a quarter of all fish stocks are overharvested.
- Since 1980, about 35 percent of mangroves have been lost
- About 20% of corals were lost in just 20 years; 20% degraded
- Nutrient pollution has led to eutrophication of waters and coastal dead zones
- Species extinction rates are now 100-1,000 times above the background rate

Definition: Payment for Environmental Services (contd.)



- Land Use A more attractive to Land Users
- Land Use B better for societies as whole (including downstream population)

Source: <http://www.worldbank.org>

- Payment makes Land Use B more attractive to Land User A
- Land users are better off (payment and local benefits of B > local benefits of A)
- Downstream populations are better off (payment to Land User < cost would bear if A)

Narrow Definition Payment for Environmental Services

A PES scheme is

- a voluntary transaction in which
- a well defined environmental service (ES),
- is bought by at least one ES buyer - 'user pays'
- from a minimum of one ES provider - 'provider gets'
- if and only if the provider continues to supply that service (conditionality)

(Wunder, 2005)

Success Factors for PES

1. Identifying and Valuing ES - Getting the science right
2. Clear benefits by additionality of service
3. Existence of supply
4. Existence of demand
5. Implementing - functional and sustaining market
6. Adapting to the context – pre-negotiation process between buyers and sellers
7. Supporting the negotiation process

Pro-poor PES

- PES is not a poverty reduction tool
- PES affect poverty – who benefits, who pay?
- Payments to landowners,
- Non-monetary benefits to communities (rewards) such as road access, irrigation, etc.
- Payments can ensure property rights,
- High obstacles (transactions costs) for poor
- Lack of knowledge on linking service provision, ecosystem management, economic value

PES limitations in REDD+

- i. Emission markets are created and regulated by quotas
- ii. Who sets the price, subsistence economy prevails (social value > monetary value), market barrier for small suppliers of CERs
- iii. Weak governance and compliance (trophy hunting syndrome)
- iv. PES is location specific (will not work across a landscape)
- v. From PES to RBP (mainly through bilateral negotiations)

