

REDD+ costs and benefits

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Outline

1. Why use economic information for REDD+?

2. What are REDD+ costs?

3. What are REDD+ benefits?

4. What costs & benefits data can be part of the GIS tool?



1. Why use economic information for REDD+?

- Help to identify & quantify benefits
- Help to understand costs
- Compare different REDD+ options and land uses



Planning for costs of REDD+

In addition to benefits and risks, there are also economic costs associated with REDD+:

Costs of REDD+

Opportunity

Costs of potential income foregone from 'business as usual' land use

Implementation

Variable costs associated with implementing actions, e.g:

- Investment at the beginning ('up-front costs')
- Annual expenses

Transaction

Costs of starting and maintaining a REDD+ programme

- Development costs
- Costs of bureaucratic processes (e.g. procurement)

Quantifying the costs

Types of costs:

1. Opportunity costs

- Alternative uses of forest/land to REDD+:
 - Timber/charcoal production
 - Agriculture
- Large variation between location, time period, actors



2. Transaction & Institutional

3. Implementation

1. Opportunity

2. Transaction & Institutional

Costs of developing and running a REDD+ programme:

- Planning
- Consultations
- Reference level
- MRV....

3. Implementation



1. Opportunity

2. Transaction & Institutional

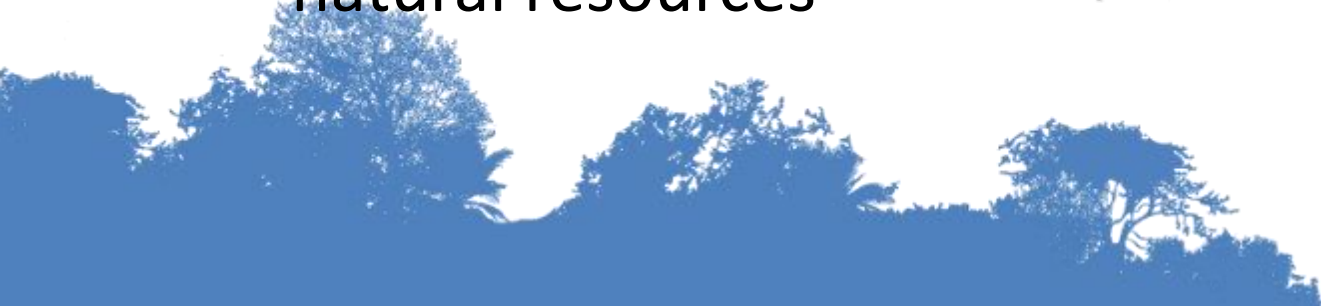
3. Implementation

- Workplanning
- Reforestation, restoration
- Forest protection
- Incentives/livelihoods
- Administration
- Monitoring....



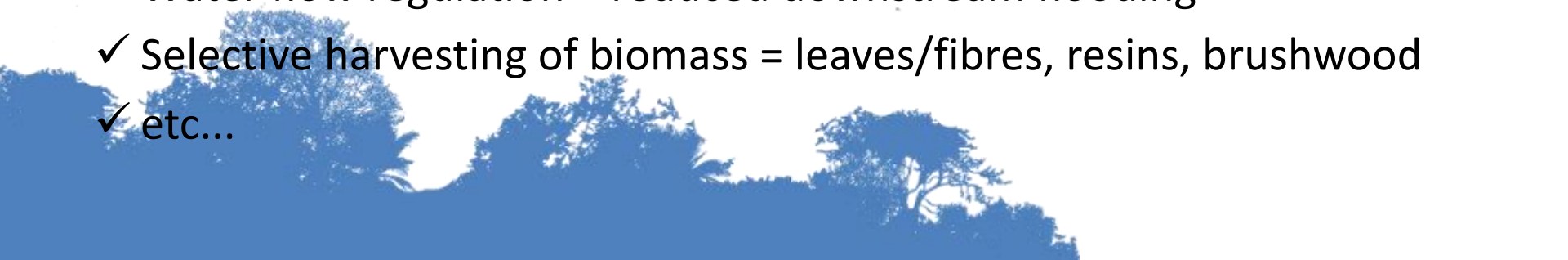
3. What are REDD+ benefits?

- Benefits from REDD+ can be monetary, e.g. results-based payments, income from improved timber supply & NTFPs
- They can also provide economic, social and environmental value, but be difficult to ‘monetize’:
 - Enhancement of ecosystem services
 - Biodiversity conservation
 - Social benefits
 - Clarified tenure and improved governance of natural resources



Benefits beyond carbon.....

Multiple benefits from forests:

- ✓ Water purification = clean drinking water
 - ✓ Wild foods = vegetable, fruits, seeds, animals, honey...
 - ✓ Sites for nature-based tourism = source of income/employment
 - ✓ Soil erosion prevention = reduced sedimentation of dams
 - ✓ Improved crop productions = bigger yield for crops bordering forests
 - ✓ Local climate improvement = shade from sun, shelter from winds
 - ✓ Traditional healing plants = alternative source of medicines
 - ✓ Cultural and spiritual values = preservation of special places
 - ✓ Water flow regulation = reduced downstream flooding
 - ✓ Selective harvesting of biomass = leaves/fibres, resins, brushwood
 - ✓ etc...
- 

4. **Costs & benefits data and the GIS tool**

- Economic analysis conducted to help develop the tool. National and khaet level data collected.

Opportunity costs: rubber, cashew, large-scale & small scale rice, charcoal, pepper, luxury timber, clear felling

Implementation costs: protected area management; community-based sustainable forestry; other sustainable forestry; forest restoration; reforestation.

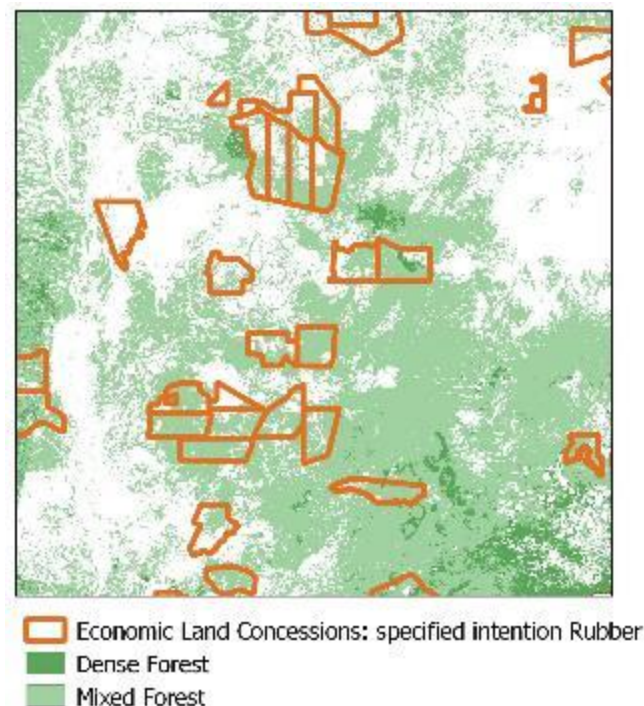
Transactions costs: estimates for national level REDD+ programme (not spatial but need to be added to analysis results)

Benefits: carbon income; NTFPs; ecotourism; sustainable timber; ecosystem service values



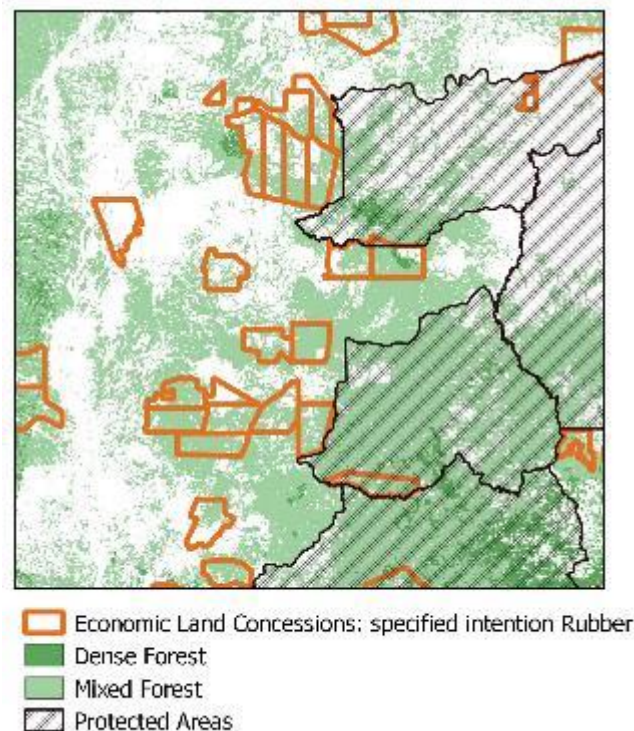
Examples of spatial layers for costs & benefits in the GIS tool – Opportunity costs

- **Opportunity costs** –i.e. the foregone potential income from alternative land use
 - ❑ what are the opportunity costs associated with different drivers?
 - ❑ what is the likely future distribution of the driver under BAU?
 - ❑ what would be the foregone potential income under REDD+ over the time ? (minus any input costs that were to incur in order to carry out the BAU activity?)



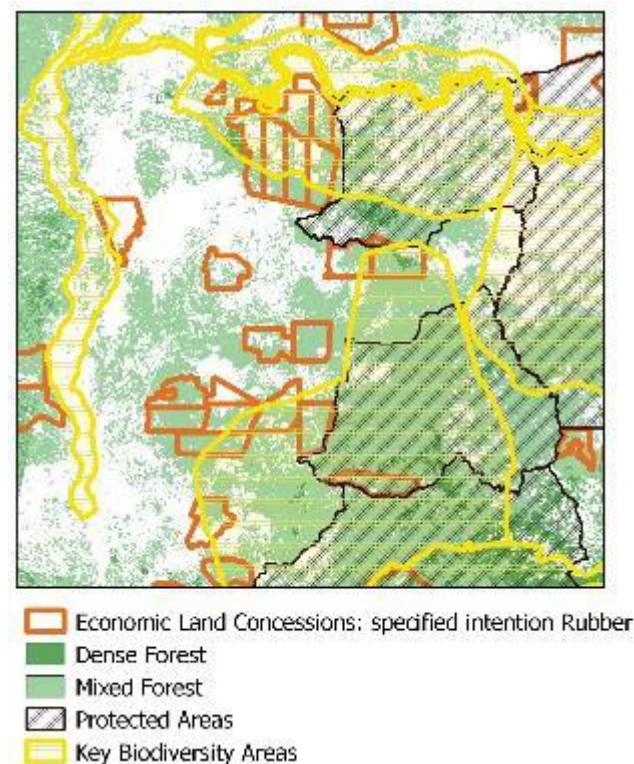
Examples of spatial layers for costs & benefits in the GIS tool – Implementation costs

- **Implementation costs** –i.e. the cost of undertaking a REDD+ action
 - ❑ Where is a particular REDD+ action planned and what is the cost of implementing it?
 - ❑ Different costs associated with different REDD+ actions to address the driver?
 - ❑ For example: costs to implement protected area management in different locations.



Examples of spatial layers for costs & benefits in the GIS tool –Value of benefits

- **Value of benefits-** i.e. additional benefits of forest retention such as biodiversity and ecosystem services
 - Potential carbon income
 - Mitigation of soil erosion
 - Nature-based tourism
 - Biodiversity benefits
 - NTFPs
- it may be possible to attribute a monetary value to some but not all of these benefits



Thank you!

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