

The Value of Land Resources in the Cardamom Mountains: Supporting Evidence-Based Decision Making



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The Purpose

Provide evidence to the government of the benefits of an integrated economic analysis of the values of land resources as part of the preparation of the National Action Plan on Land



The Rationale

- Land resources underpin Cambodia's economy and the livelihoods of people in rural areas
- In many places these resources are being degraded by a series of pressures, and climate change will only make things worse
- The value of these resources, to national development and in poverty reduction, is often not understood properly and is not considered in land management decisions



The Problems

- Climate change, over-exploitation of land resources, poor management and land-use changes all jeopardise the productivity of lands and the integrity of ecosystems
- Problems often most acute where poverty and dependence on land resources are highest
- Cambodia's rapid development making things worse

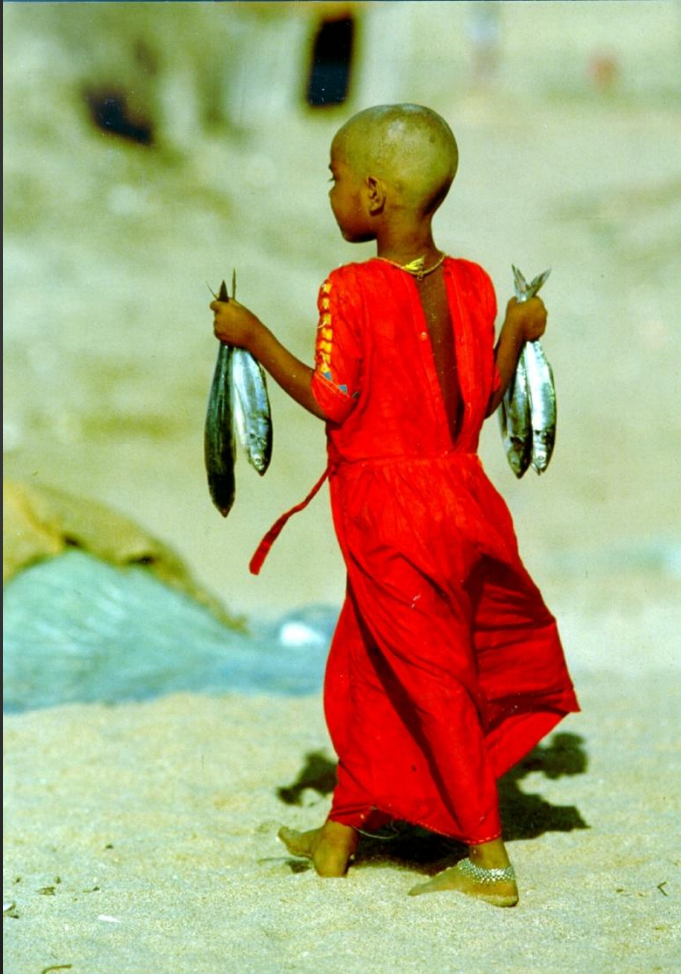


The Solutions

- Are known (technically) – many examples of sustainable land management systems that reduce and reverse land degradation
- Many are built on traditional livelihoods, but add new knowledge and management practices to them
- SLM can have the dual benefit of reversing land degradation and sustaining and improving the livelihoods of the poor

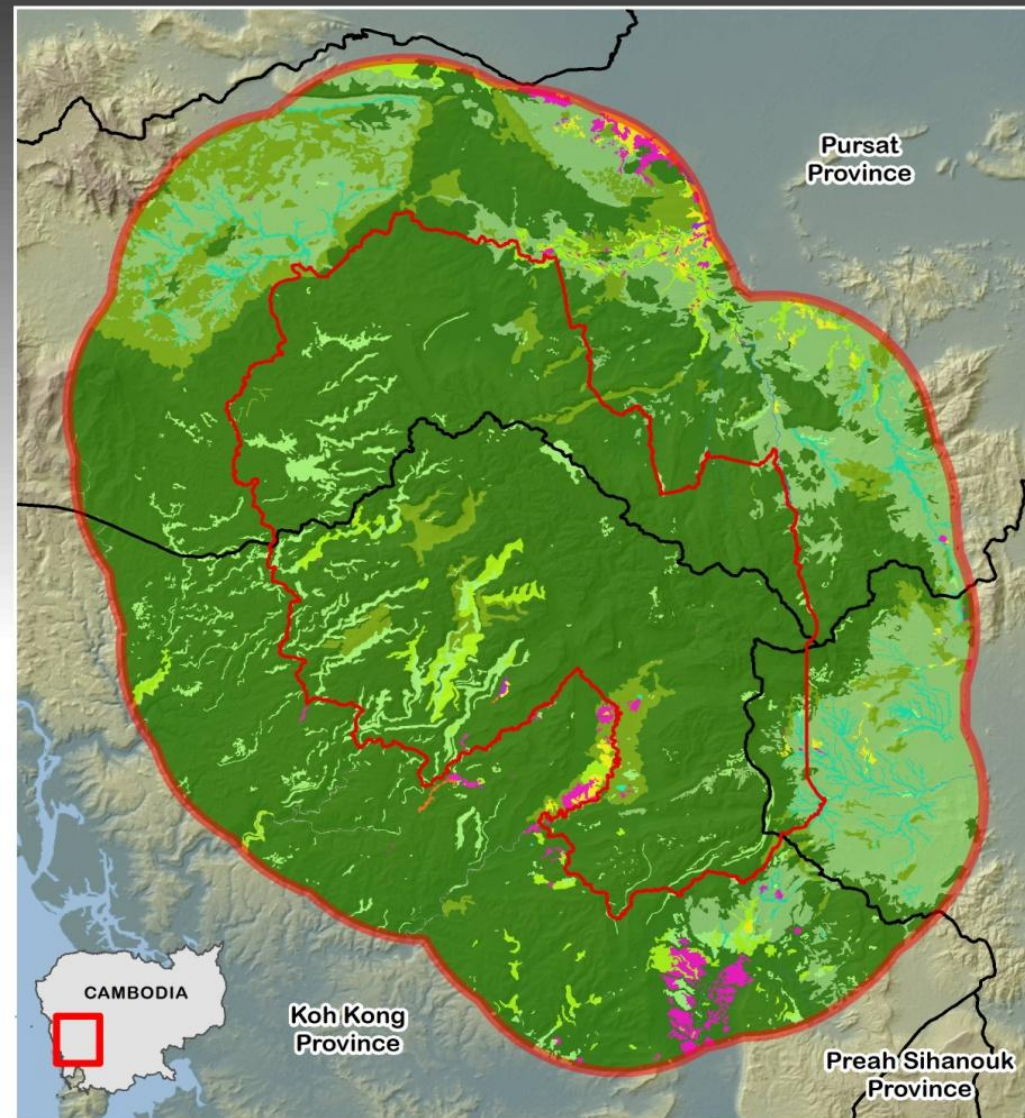


The Method



- Key aim: a method that is robust, rigorous but also adoptable by national authorities
- Realistic in reflecting (a) capacities and (b) information availability in Cambodia (& other GM member countries)
- Based on existing information, works within a realistic time frame

CAMBODIA - CARDAMOM PROTECTED FOREST



The Study Area:

CCPF & a
surrounding buffer
zone of 20 km
Contains large
areas of intact
forest cover but
also home to
19,000 people



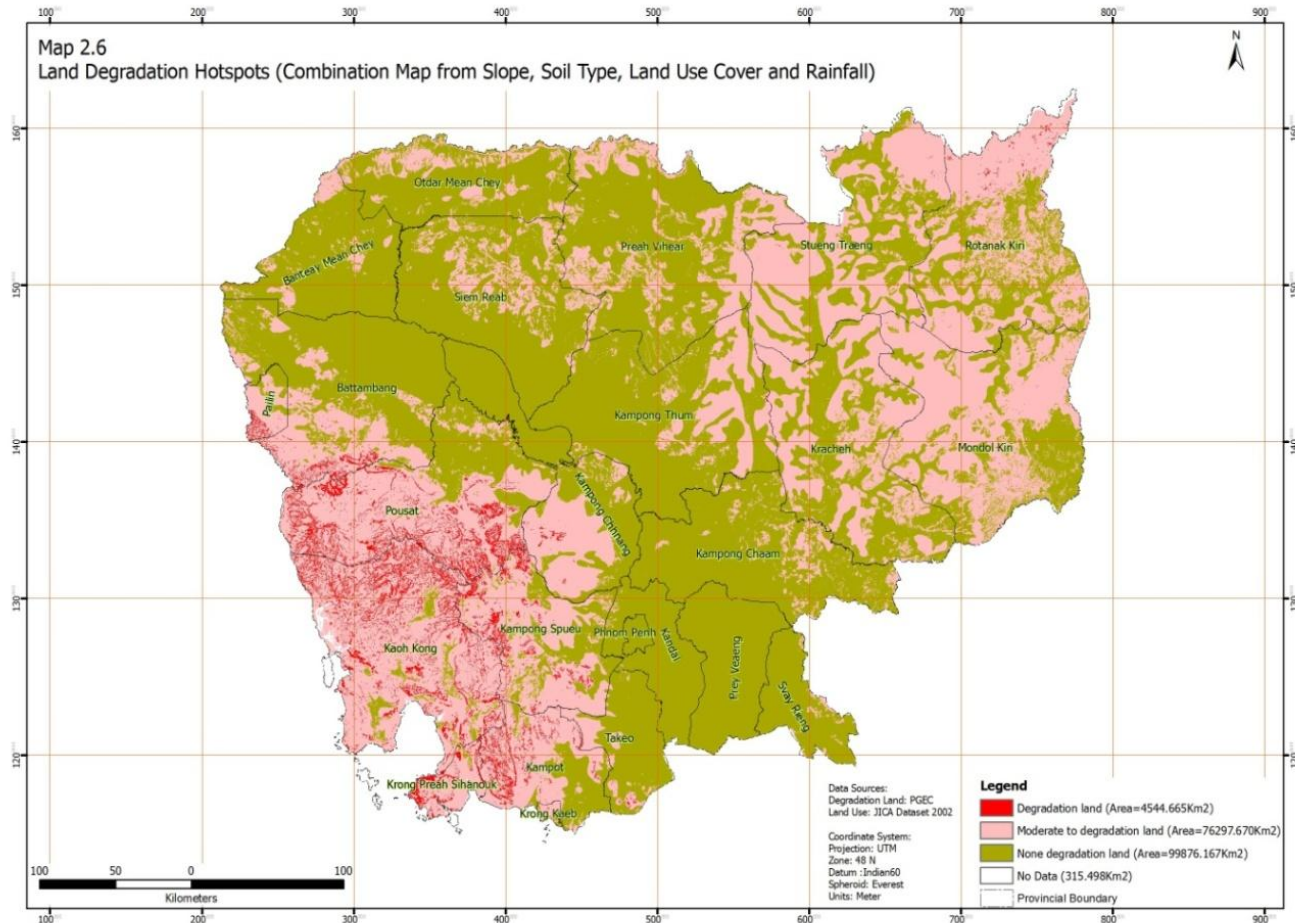
The Study Assessed:

- The value of the most important land resources of the area, based on an ecosystems services framework.
- Estimated the value of the following functions:
 - Value to local livelihoods
 - Provisioning services: timber, non-timber forest products and agriculture
 - Biodiversity
 - Watershed functions, especially re: hydropower
 - Carbon Sequestration
- Also took into consideration values such as tourism potential and cultural values that we could not quantify

Local Livelihoods

- Land resources basis of local livelihoods: agriculture and gathered forest products
- Also indirect values such as water supply, soil protection and cultural values
- NTFP value estimated as \$280-\$345/hh/yr, for a total value of \$1,400,000
- Livelihoods depend on resources within 5km of villages: a “livelihoods support zone”

Land Resource Pressures



- Several pressures on land resources exist & are increasing
- Includes the effects of illegal logging & wildlife trade, the impact of in-migration and land encroachment and soil degradation pressures in a naturally fragile area

Valuing Land Resources in the Cardamom Mountains



- A range of estimates of the values of land resources in the study area were made, based on the best available information
- Stress that they are broad estimates, but the results do give a good understanding of the total value of land resources

Provisioning Services

- Total timber value, based on sustainable harvesting, of \$440 million/year
- Agricultural land: small area but with a production value of \$1,500,000/year
- NTFP: total theoretical value of \$400 million/year



Watershed Functions



- A key ecosystems service in the area, protecting water and soils downstream for hydropower, agriculture and other functions
- Total value estimated at \$75 million/year for the study area

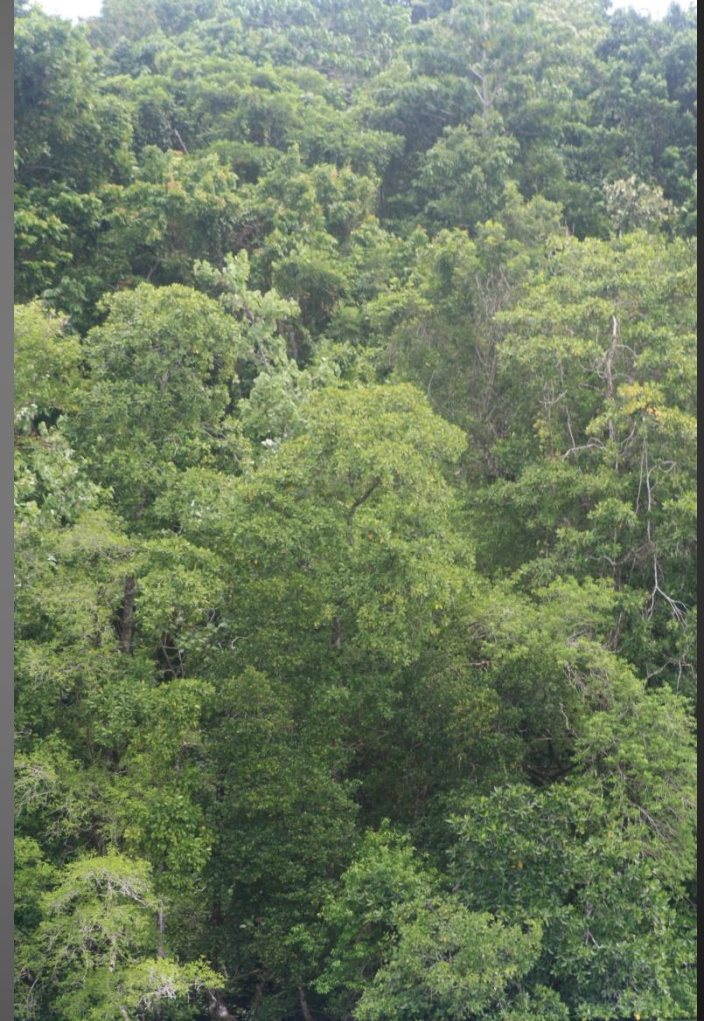
Biodiversity Values

- The Central Cardamoms are an area of global significance for biodiversity protection
- Many rare and endangered species, key biodiversity habitats
- Total value estimated as being \$1,360 million/year



Carbon Sequestration

- The extensive tracts of high density forest make carbon sequestration a key ecosystems service
- Highest values of the land resources of the study area, even if these values are not convertible to actual income
- Values estimated at \$3,669 million total stock value, based on international norms



Moving Towards Sustainable Land Management

- A range of options can be identified to strengthen sustainable land management in the study area
- But complex questions of governance and rights need to be sorted out to make SLM more effective
- Need to balance conservation and development, here as elsewhere in Cambodia



SLM Options

- Strengthen community management of the livelihoods support zones
- Introduce PES for hydropower schemes to pay for watershed protection activities
- Identify key areas for biodiversity protection and strengthen their management
- Support the transition away from slash-and-burn' agriculture, taking into account traditional cultural values
- In many cases more detailed work needed to clarify which SLM options will work where

Thanks for Listening

