

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



A Study by MAFF, SEI, GM of UNCCD and CI

# The Purpose

An initiative to develop a comprehensive methodological approach for assessing the costs of land degradation and the value of sustainable land management

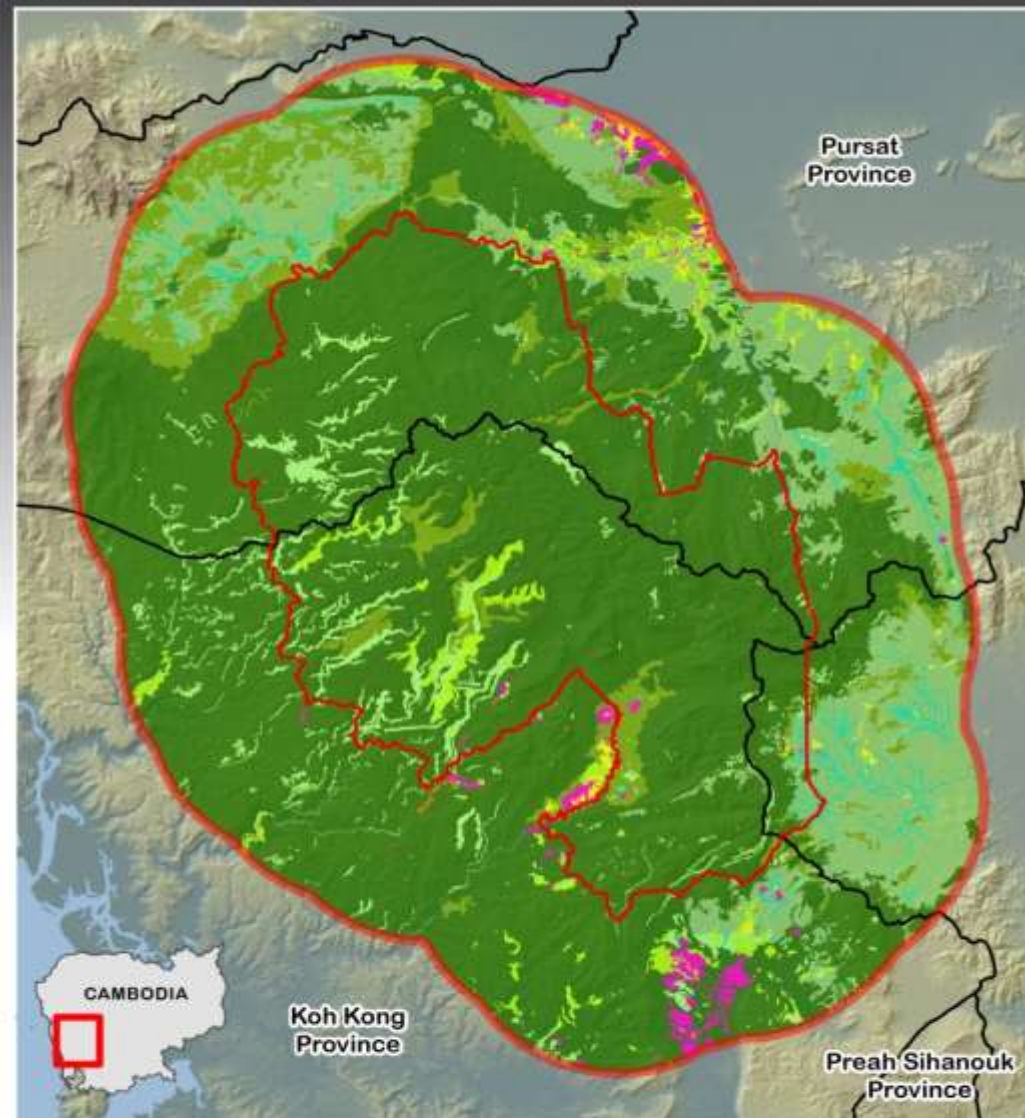


# The Rationale

- Land resources underpin the national 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



## 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

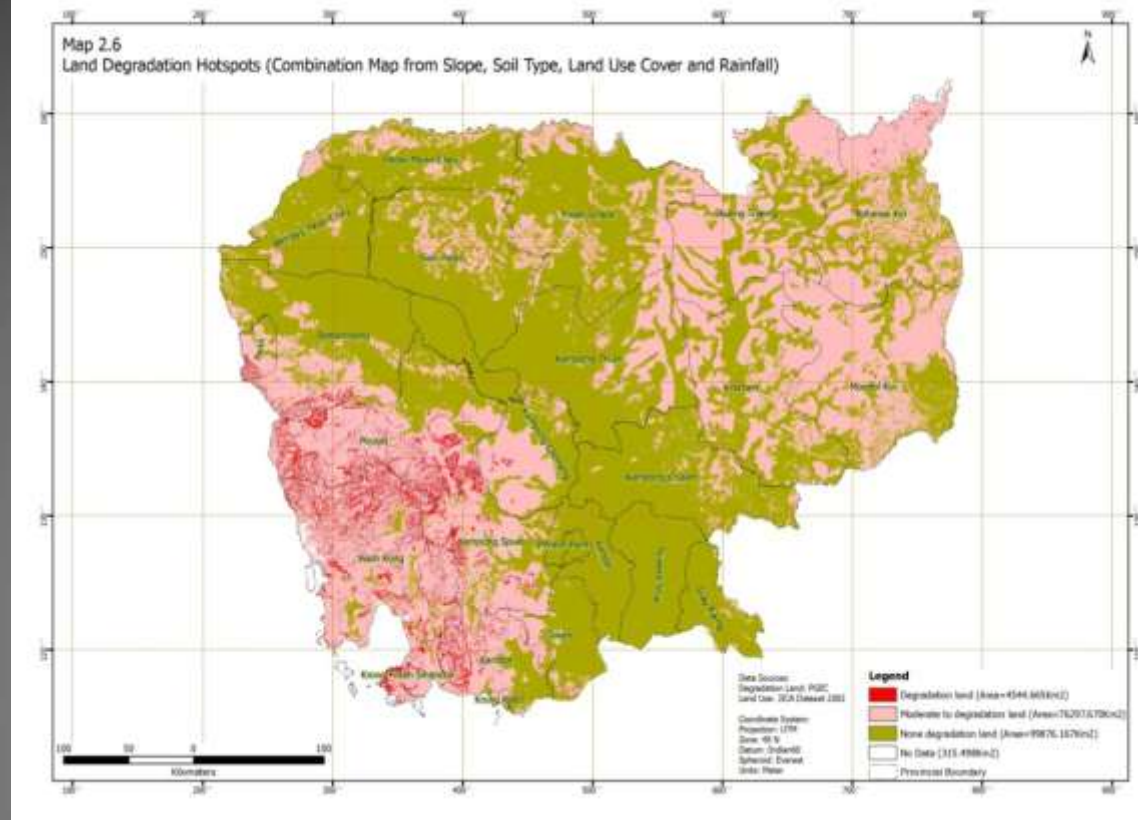
- The value of the most important land resources of the area, based on an ecosystems services framework.  
Estimated the value of the following functions:
- Value to local livelihoods
- Provisioning services: timber, non-timber forest products and agriculture
- Biodiversity
- Watershed functions
- Carbon 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
- These options will only become reality with supportive government policies and effective incentives for local land managers
- They need to understand and build on local livelihood systems and traditional land management practices
- 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
- More detailed work needed to clarify which SLM options will work where



# Thanks for Listening

