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# Forest Conservation in Cambodia

Financing Climate Benefits, Biodiversity Conservation and Community Development through the Market for Emission Reductions

Promoting Transformation by Linking Natural Resources, Economic Growth, and Good Governance



## Cambodia

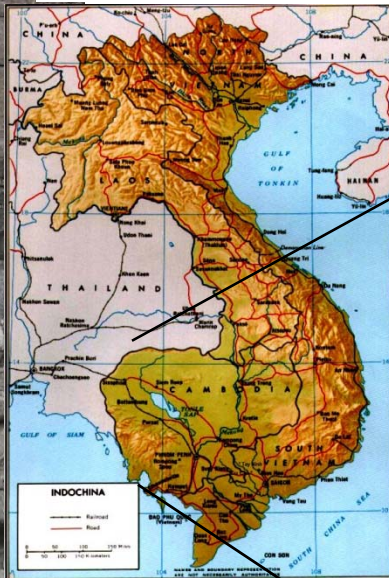
- One of the poorest countries in SE Asia
- High forest cover (2006: 58.9%)
- High recent rates of forest loss (2002-2006: 3%, or 379,485 hectares)
- Low endemism, moderate species richness but high numbers of globally threatened species
- Large numbers of remote forest-dependent communities



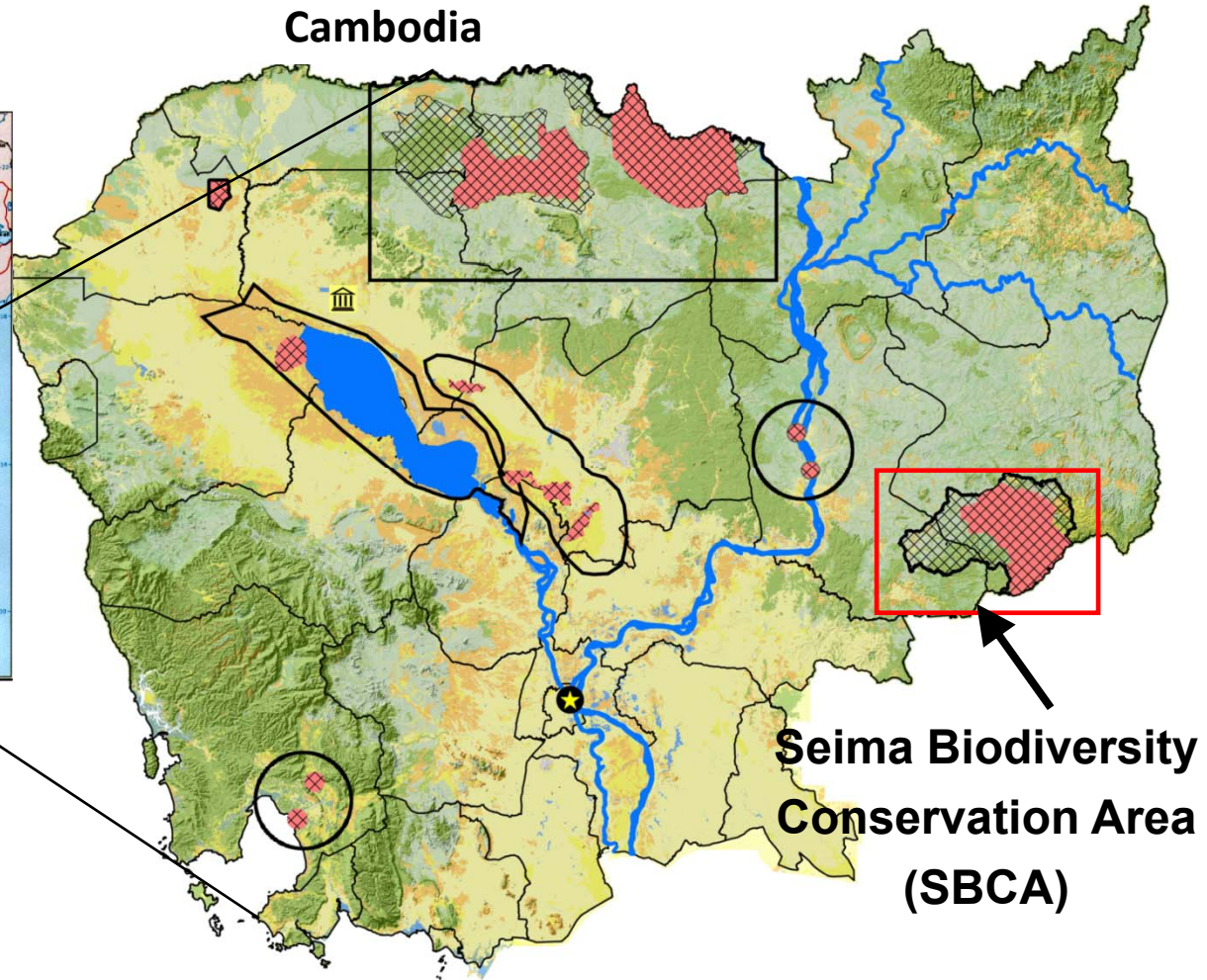


# Seima Biodiversity Conservation Area (SBCA)

INDOCHINA



Cambodia



Seima Biodiversity  
Conservation Area  
(SBCA)





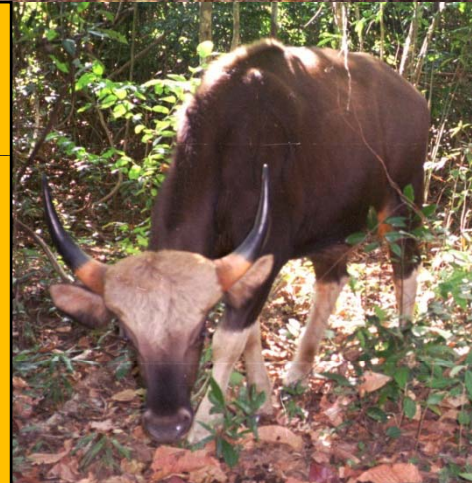
**Unique community of birds:**  
**4 Critically Endangered,**  
**8 Endangered or Vulnerable, and**  
**8 Near-threatened species**  
Including:  
Vultures; Large waterbirds: Giant & White-shouldered Ibis, Adjutants, Sarus Crane, Black-necked Stork; Orange-necked Partridge; Green Peafowl







**Globally Threatened Mammals:**  
**5 Endangered**  
**12 Vulnerable or Data Deficient, and**  
**5 Near-threatened species**  
Including:  
Tiger, Leopard, Asian Elephant, Eld's Deer Dhole,  
Gaur, Banteng, Fishing Cat, Golden Cat, Langurs,  
Gibbons





## Habitat Diversity

Has a complex mix of forest types including:

- Evergreen forest
  - Semi-evergreen forest
  - Mixed deciduous forest
  - Deciduous dipterocarp forest
  - Bamboo
- + Permanent water sources and many mineral licks





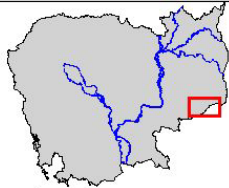
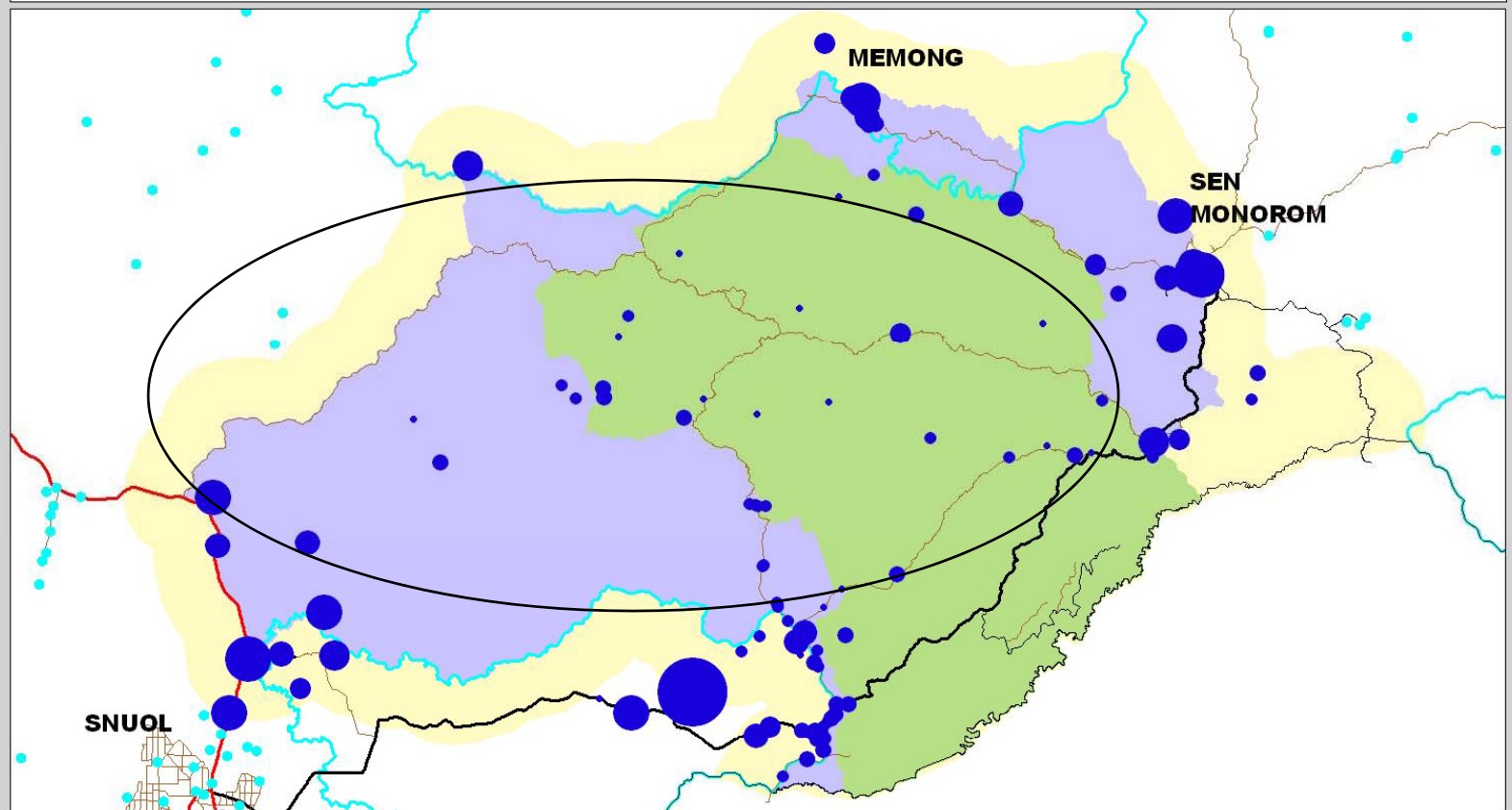
# Forest inhabited by the Bunong minority



A Mon-Khmer ethnic indigenous group  
Animist, typically shifting cultivators, live in small forest settlements  
Limited exposure to mainstream Khmer culture until recently  
Low literacy  
Low numbers  
Politically weak



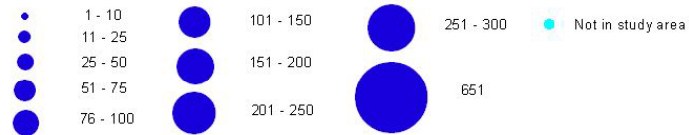
## There are many small enclave villages



### LEGEND

- SBCA Core area
  - SBCA
  - Survey area
  - Wildlife Sanctuaries
- Key roads
- hard surface, 2 lanes wide
  - loose surface, 2+ lanes wide
  - loose surface, one lane wide
  - loose surface, fair/dry weather

Settlement size (Families) Dot area is proportional to population.



COORDINATE SYSTEM  
 - Projection: UTM  
 - Zone: 48N  
 - Horizontal Datum: India 1960  
 - Spheroid: Everest

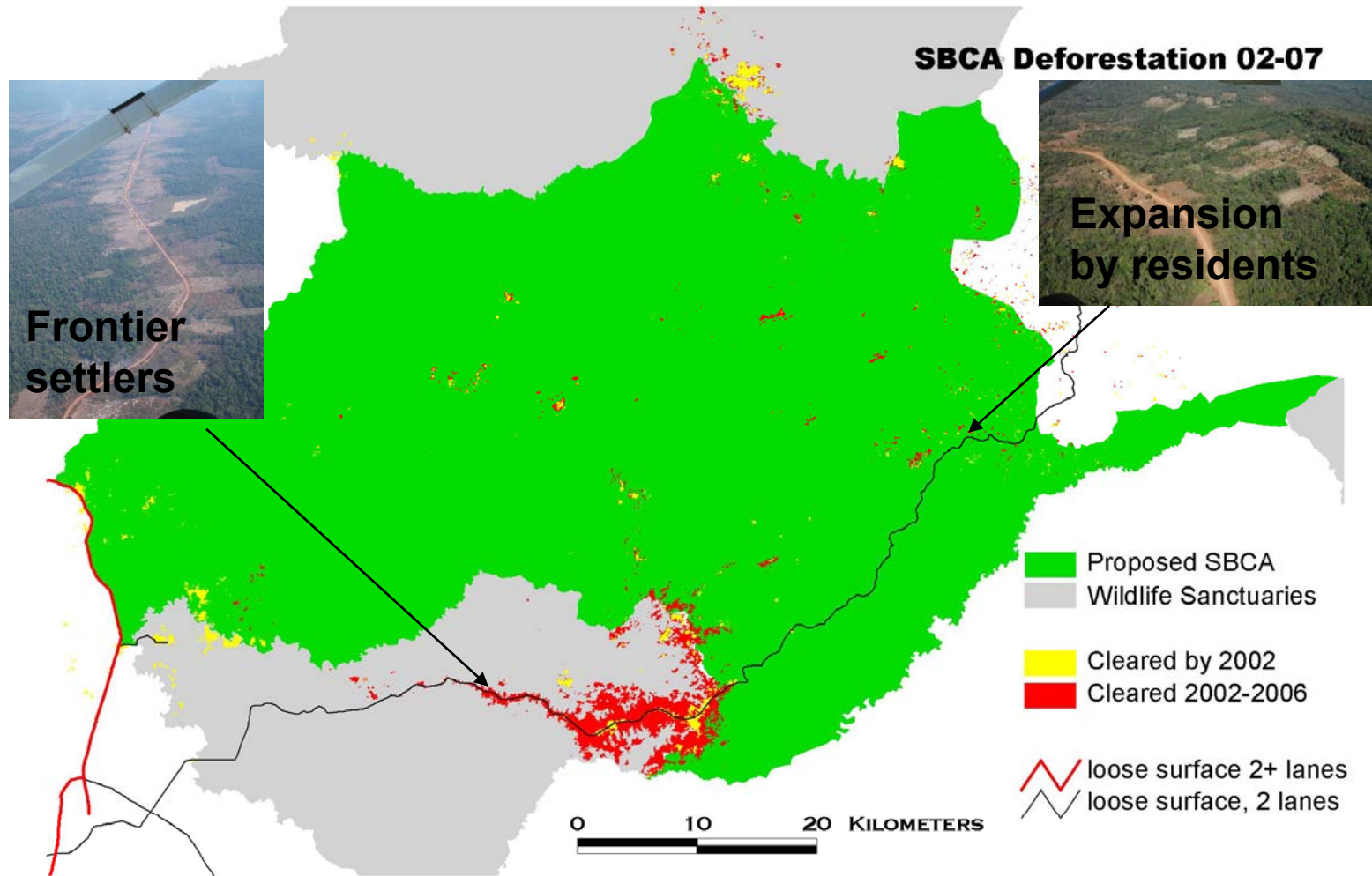
0 5 10 Kilometers

Prepared by  
 WCS Cambodia  
 July 2005





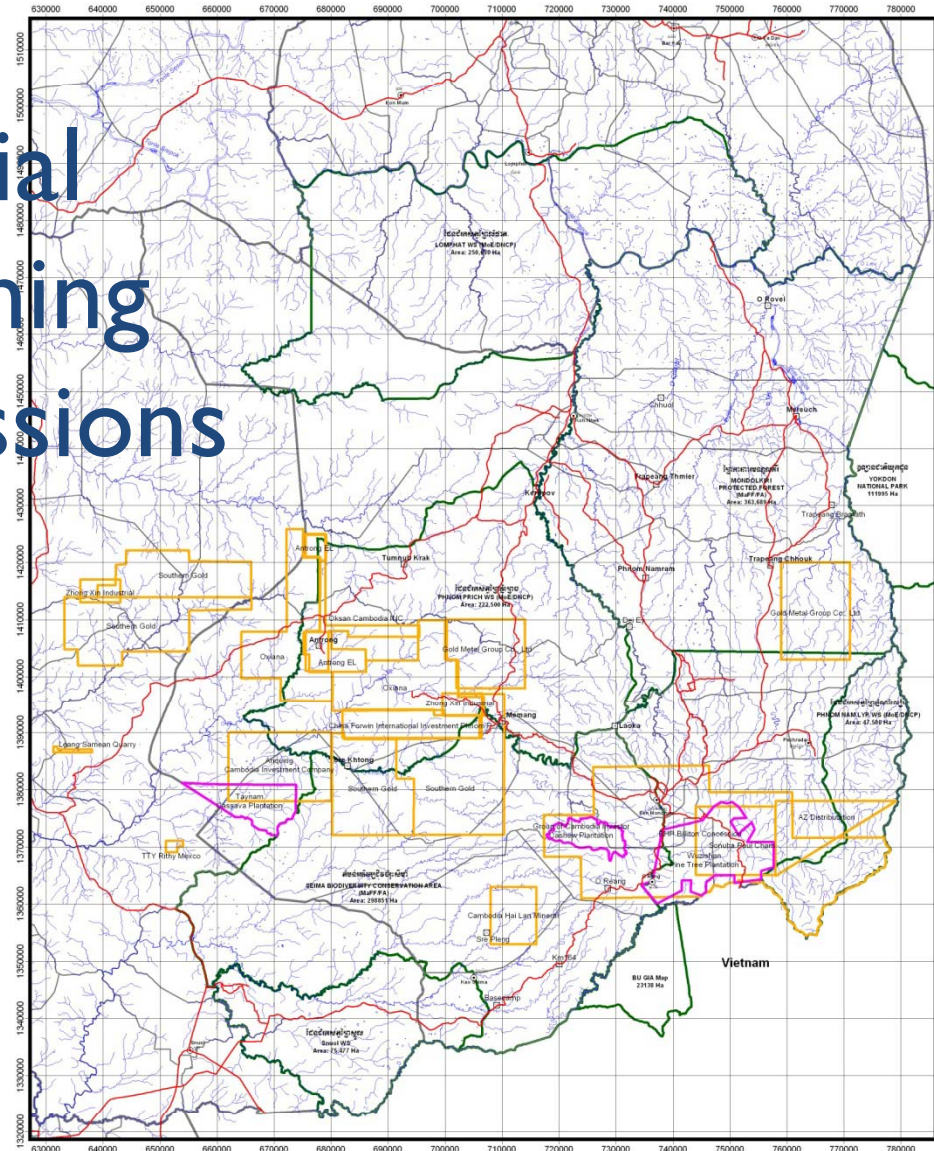
# Drivers of forest clearance



## Agro-Industrial and Mining Concessions

ផែនទី៖ តំបន់កែលម្អដីសម្រាប់ស្រាវជ្រាវធនធានមីនេរ៉ាល់ និងសម្រុះសម្រាប់កសិកម្ម និងសេវាខេត្តមណ្ឌលគិរី

Mineral Resources Exploration and Agricultural Development Land Concession in Mondulkiri Province



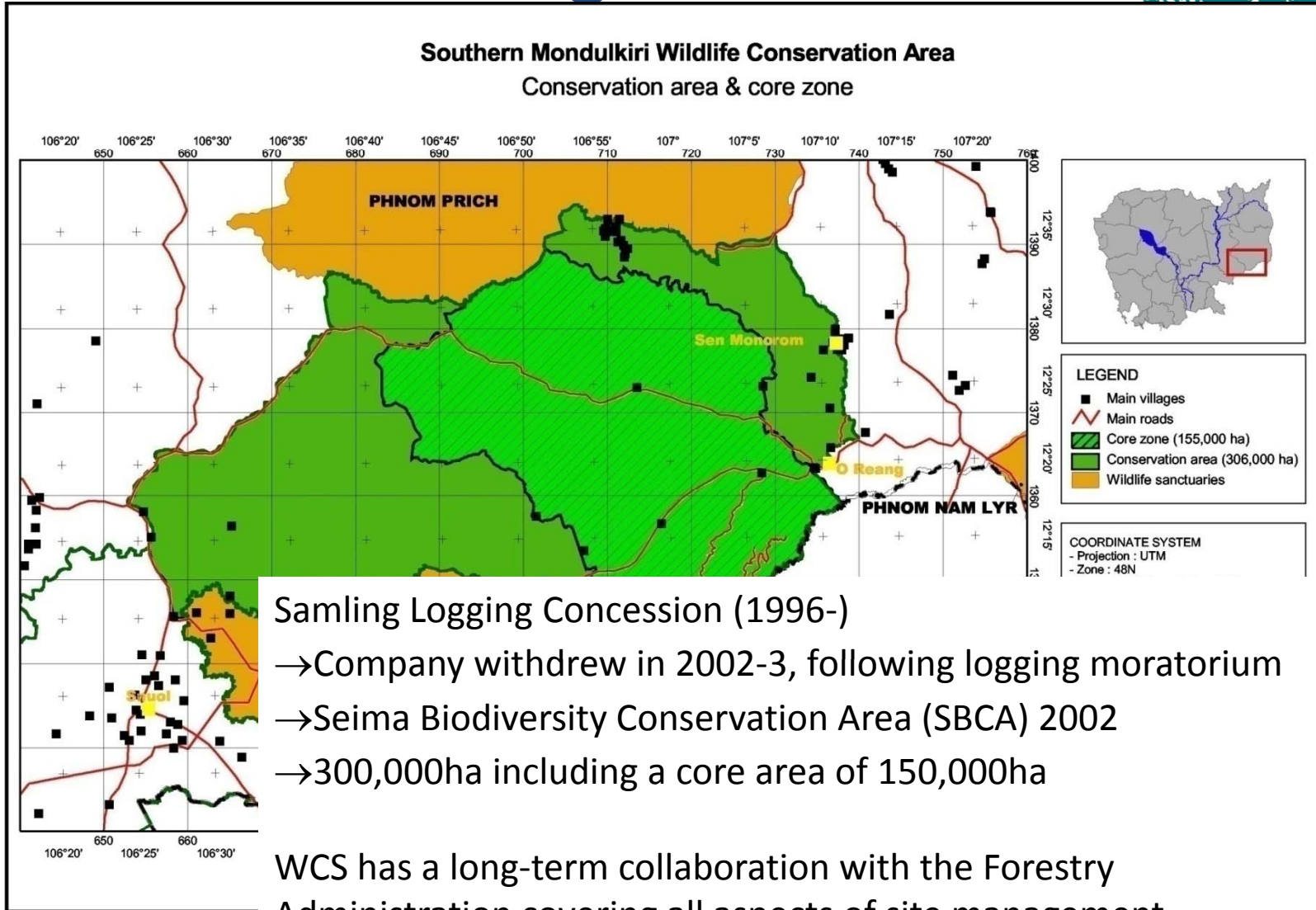
<p>Map Location of Cambodia</p>	<p>Map Location of Indochina</p>	<p><b>Map Information</b></p> <p>Map Units: Meters System: UTM, Zone 48 Horizontal Datum: Indian 1960</p> <p><b>Data Sources</b></p> <p>Mineral Data from contracts seen, TMO Land MME presentation 2006 Protected Areas from DDCP and Protected Forest from FA District Centers and Provincial Boundary from DSG Rivers from NBC and road and watershed from CIA</p>	<p>Published Date: 06 June 2007</p>	<table border="0"> <tr> <td></td> <td>Major Road</td> <td></td> <td>Mineral Resources Concession</td> </tr> <tr> <td></td> <td>River/Water Stream</td> <td></td> <td>Protected Areas</td> </tr> <tr> <td></td> <td>District Centers</td> <td></td> <td>Provincial Boundary</td> </tr> <tr> <td></td> <td>Field Ranger Outpost</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Agricultural Land Concession</td> <td></td> <td></td> </tr> </table>		Major Road		Mineral Resources Concession		River/Water Stream		Protected Areas		District Centers		Provincial Boundary		Field Ranger Outpost				Agricultural Land Concession		
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# Current management





# Conservation Program

- Samling withdrew in 2002 – power vacuum – significant increase in threats (mainly land clearance)
  - Conservation program initiated: WCS/Government
- Includes:
  - Support to law enforcement (absolutely crucial element)
  - Community land-use planning, land titling & resource tenure
  - Economic incentives – Community Commercial Forestry, REDD
  - Monitoring
- Multiple donors: USFWS, MacArthur, Private, ADB, DFID, Danida, etc... (until 2010-2011)





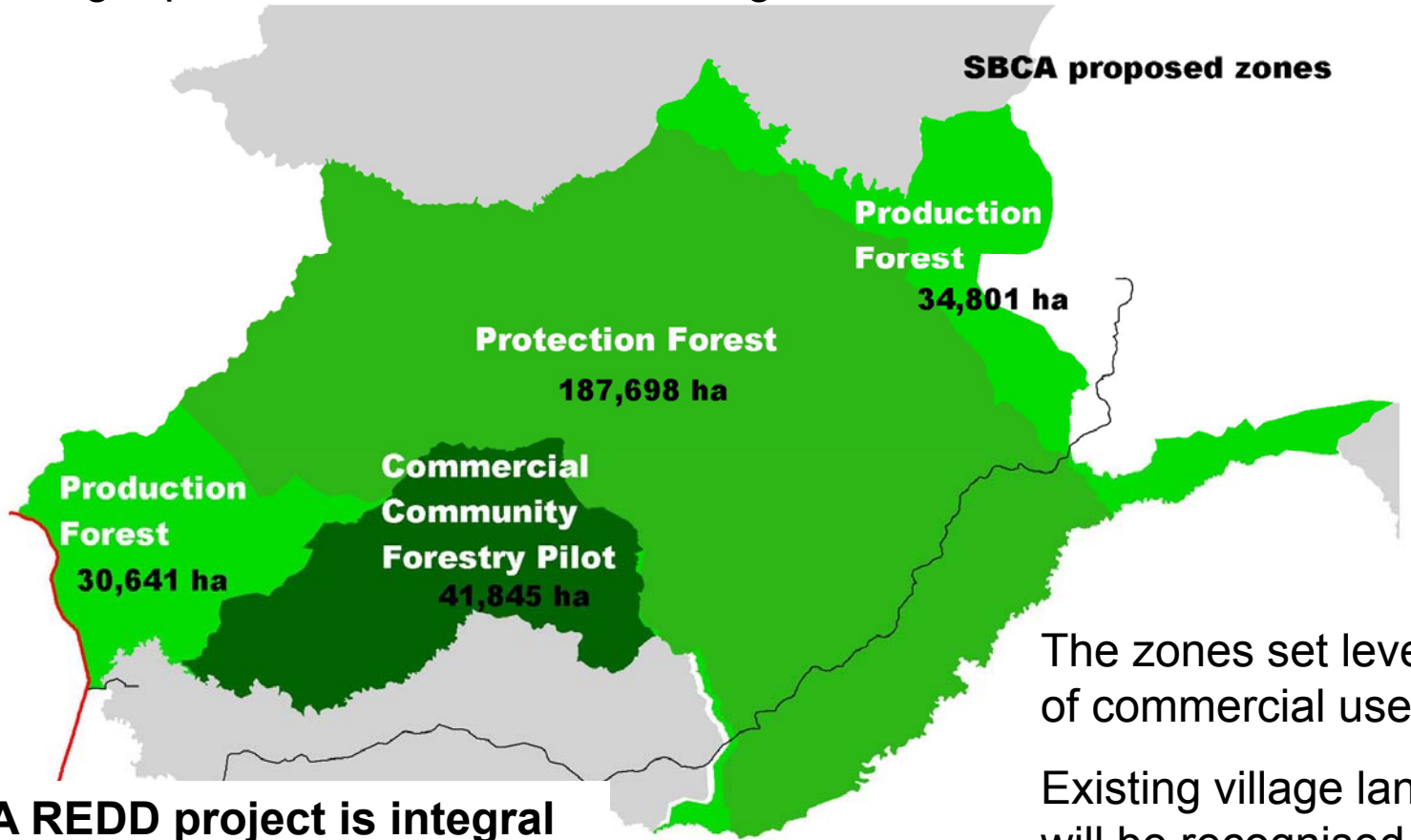
# Legal issues & Land tenure

- Area is technically classified as Production Forest under 2002 Forestry Law (i.e. not a PA or protected zone), under management of the (national) Forestry Administration
- Communities can obtain legal recognition of resource tenure and land titling either for –
  - Agricultural plots (Khmer communities)
  - Communal lands for swidden agriculture (Indigenous communities)
- To date no indigenous lands have been registered
- Long-term WCS program working with all communities to clarify land rights and support recognition



# Stronger legal base sought

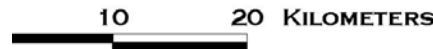
A subdecree proposal is in the system – we seek stronger protection and clarified zoning



A REDD project is integral to the proposal – for funds and part of raison d’etre

The zones set levels of commercial use

Existing village lands will be recognised in all zones







# Eligibility & Additionality

- Essential part of the argument
- SBCA currently classified as Production Forest – i.e. for logging, community harvesting, potential conversion
- FA/WCS proposal to gazette SBCA as Protection Forest
  - Requires demonstrating that protection forest also generates economic returns
  - Designation of land concessions in protection forest is illegal
- Additional REDD financing required for law enforcement, community land titling, incentive schemes



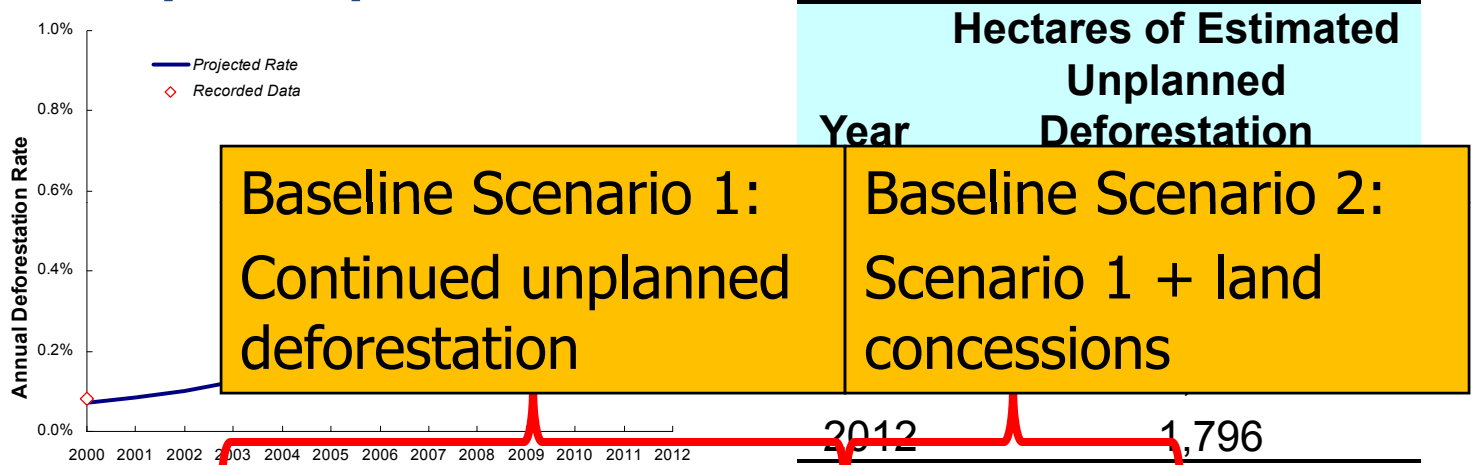
## Deforestation rates & Carbon

- National assessments: 1992, 1996/7, 2000, 2002, 2006
  - Unfortunately use different classification systems, so challenging to compare
- Site assessments by WCS for 2000/1, 2004/5, 2006/7, 2007/8
  - Coverage depends on image availability
  - Challenging to distinguish natural grassland and open woodland from agriculture
- Carbon stock assessments



# Deforestation rates

- Analysis by Winrock International (2008)



Year	Hectares of Estimated Unplanned Deforestation Associated with Road	Hectares of Estimated Remaining Area	Hectares of Estimated Planned Deforestation	TOTAL
2008	698	716		1,413
2009	668	863	1,882	3,414
2010	640	1,042	1,882	3,563
2011	613	1,257	1,882	3,751
2012	587	1,516	1,882	3,985

# REDD Project Scenarios

- Scenario 1: 50% decrease in baseline deforestation across entire area, no agro-industrial concessions, 2008-2012

At \$5/ton = \$10 Million (minimum),  
possible \$25 Million (maximum)  
Crediting period 2008-2012 (5 years)

- Scenario 2 (Conservative): 50% decrease in baseline deforestation in a core 187,698 hectare area, no agro-industrial concessions

At \$5/ton = \$7.5 Million (minimum),  
Possible \$15 Million (maximum)  
Crediting period 2008-2012 (5 years)



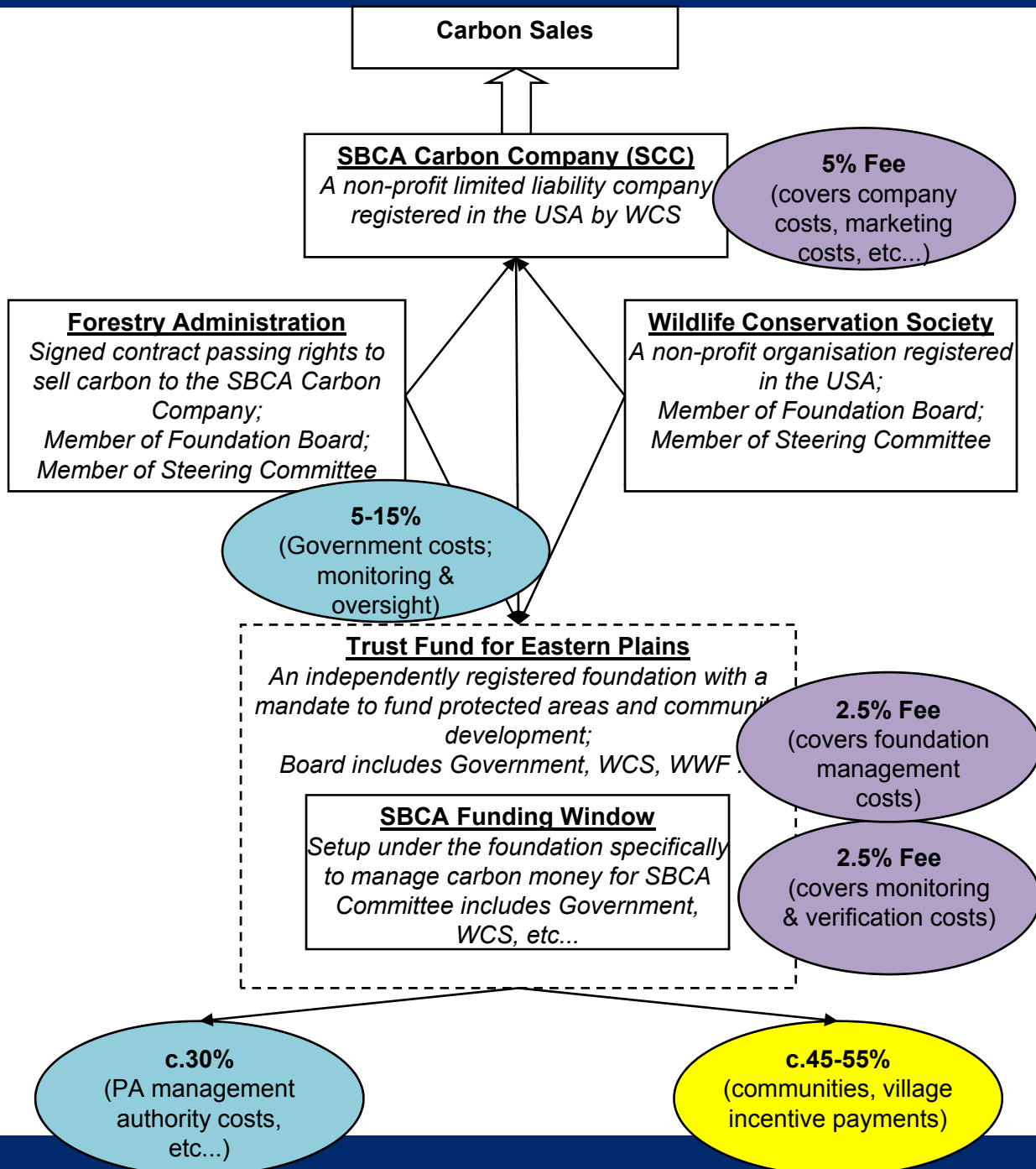


# REDD Financing for SBCA

- Conservative estimate 1.5 Million tons of CO<sub>2</sub>e over 5 years 2008-2012
  - Assumes 50% decrease in baseline deforestation in a core 187,698 hectare area only
- At \$5.00 per ton (medium to low estimate) and a 30% set aside for VCS (conservative), annual average revenue of more than \$1M
- Under a recent Council of Ministers decision (26 May 2008) FA has the right to negotiate deals and sell REDD credits
- BUT need mechanism to disperse funds that:
  - Ensures maximum amount of revenue reaches the local level
  - Is transparent
  - Has participation by all stakeholders, including Government and local communities
  - Builds local governance and support for forest conservation
  - Guarantees investor confidence
- How to do this?



# TRANS LINKS





# SBCA: Steps in the Process



- Data Collection and GIS processing: verify initial results
- Write VCS methodologies, these are double-approved by independent third-party auditors
- Complete Project Design Document (PDD) and all documentation to verify amount of VERs and receive VCS certification
- CCB certification to show project is 'Carbon+'
- WCS develops and signs agreement with the Government regarding sales and distribution of VER sale proceeds (e.g. carbon trading company and

Costs \$250,000 and 6-12 months of work



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## Steps in the Process

- WCS and stakeholders create an appropriate financial mechanism to receive payments and disburse funds to projects and activities in the region
- Creation of a conservation trust fund with a mixed board (Government, Non-Government, Donor, Civil Society) - legally created and funds invested offshore (e.g. Tri National Sangha Trust in Central Africa)
- Development of guidelines for use of funds including project financing, direct payments for conservation, etc..





# Advantages of the Model

- Sales are done by a non-profit company: ensures maximum amount of revenue reaches the local level
  - minimises broker fees – politically unacceptable to FA
- Transparent
- Has participation by all stakeholders:
  - Government, local communities, Civil Society
- Builds local governance and support for forest conservation (multiple benefits: biodiversity & communities)
- Guarantees investor confidence = higher price for the carbon credits
- NGO Branded



# Final Thoughts



- Essential elements of SBCA project:
  - Eligibility clear – creation of a new PA
  - Additionality – reduction of deforestation rates in a landscape with high rates of land-use change
  - Achievability – 6 years of experience at the site shows that here more money can → more results
  - Gain best practice certification – VCS (to verify emissions) and community and biodiversity benefits (CCB Standards – ‘Carbon+’)
  - Effective mechanism to distribute revenue in a transparent way that maximizes % at local level
  - National pilot to build capacity & readiness





## Acknowledgements



Funded by Wildlife Conservation Society, Asia  
Development Bank (ADB), Danida

Tim Pearson, Silvia Petrova, Sandra Brown  
(Winrock International)

Ray Victurine, Mark Gately (WCS)

Ministry of Agriculture, Forestry and  
Fisheries of Royal Government of Cambodia



**Danida**

