

Jurisdictional-scale carbon accounting: evaluating options

*The role of existing maps, data and webtools.*

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World Resources Institute

# This presentation - Message

- To build MR(V) from scratch is expensive it takes time, time we do not have..... **it might not be necessary**
- Tree-cover loss/gain, annual, carbon, fires, much data exist already ..... **build on it, don't reinvent it**
- Current global datasets are globally consistent and locally relevant..... They can be **used over a range of scales before they breakdown**
- No data is 100% right.... **but it never will**
- Countries/regions/districts working on improving data..... **have a reference point a dataset to validate , to improve**

# Global Forest Watch

GLOBAL  
FOREST  
WATCH  
FIRES

GLOBAL  
FOREST  
WATCH  
COMMODITIES

GLOBAL  
FOREST  
WATCH

GLOBAL  
FOREST  
WATCH  
Biodiversity

GLOBAL  
FOREST  
WATCH  
Carbon

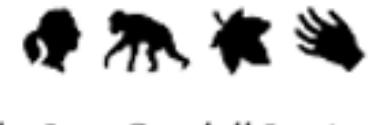
In development

In development



Ministry of Foreign Affairs of the  
Netherlands

NASA Ames  
Research  
Center



**DFID** Department for  
International  
Development

# Forest Information Challenges

An aerial photograph showing a large area of land that has been cleared of its forest cover. A single, winding dirt road cuts through the deforested area, which is characterized by a patchy green and brown landscape. The surrounding terrain appears to be covered in dense green vegetation, contrasting with the cleared area.

**Not timely**

**Not spatially explicit**

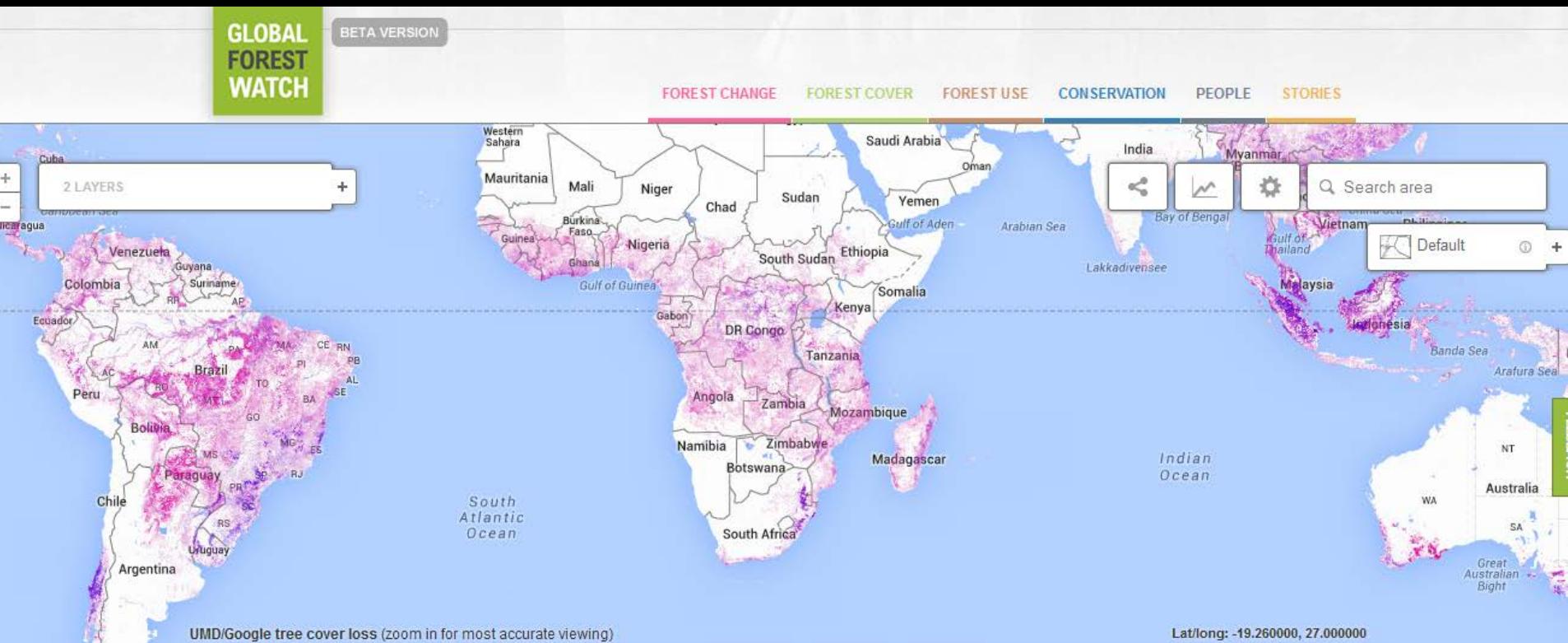
**Not interactive**

**Not consistent and comparable**

**Not accessible**

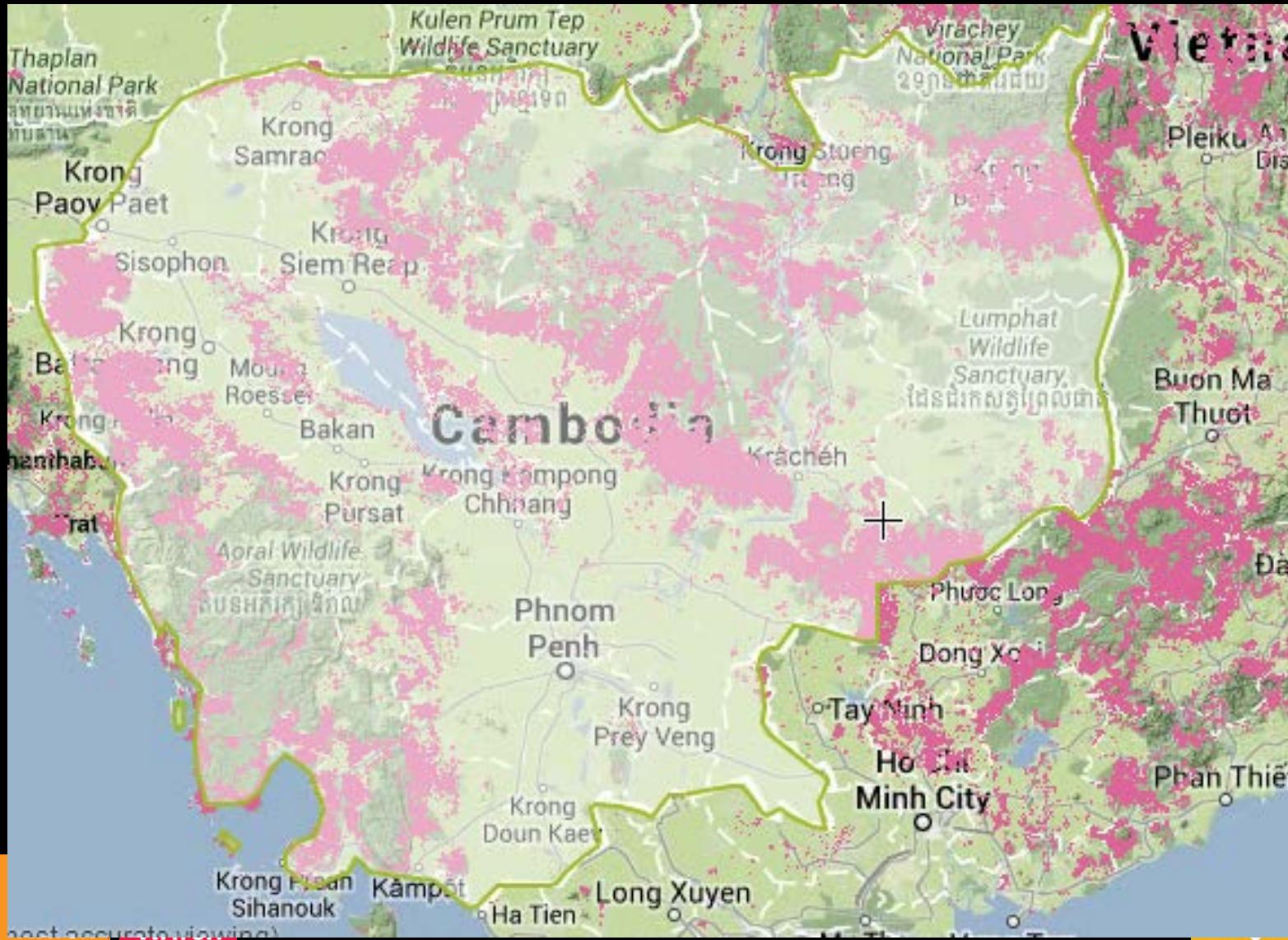
**Not actionable – REL, annual, carbon**

# Bring together in actionable format



# Cambodia Tree cover Change

## 2000-2012: 1.2 million ha



# Cambodia

SELECT AREA

SHARE



TREE COVER (2000)

9 MHa

PERCENT TREE COVER  
(2000)

50 %

LOSS AND GAIN (2001 - 2012)



144,316

Hectares lost in 2012

INFO

?

DOWNLOAD DATA

⬇

COUNTRY STATS

⬇

ANALYZE

⤵

SETTINGS

⚙

FORMA  
CLEARING ALERTS

FOREST  
TYPE

PEOPLE  
& ECONOMY

TENURE  
& LAWS

CLIMATE CHANGE

INTERNATIONAL  
AGREEMENTS

# Cambodia

SELECT AREA

SELECT AREA

BÂNTÉAY MÉANCHEY  
BATDÂMBÄNG  
KÂMPÓNG CHAM  
KÂMPÓNG CHHNANG  
KÂMPÓNG SPŒ  
KÂMPÓNG THUM  
KÂMPÔT  
KÂNDAL  
KAÔH KONG  
KEP  
KRÂCHÉH  
KRONG PAILIN  
KRONG PREAH SIHANOUK  
MÔNDÓL KIRI  
OTDAR MEAN CHEY  
PHNOM PENH  
POUTHISAT  
PREAH VIHÉAR  
PREY VËNG

FORMA  
CLEARING ALERTS

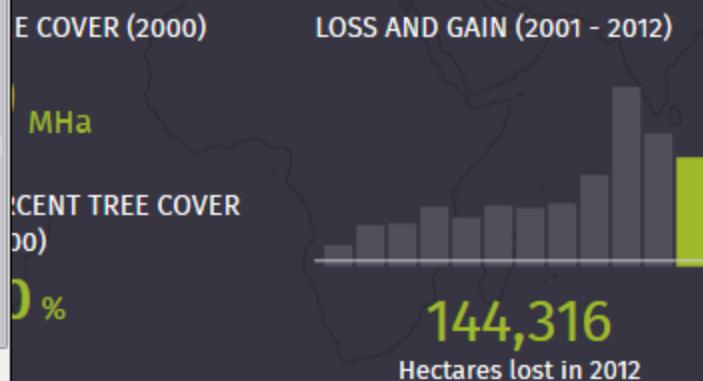
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BATDAMBANG

SHARE 



TREE COVER (2000)

481 KHa

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41 %

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Hectares lost in 2012

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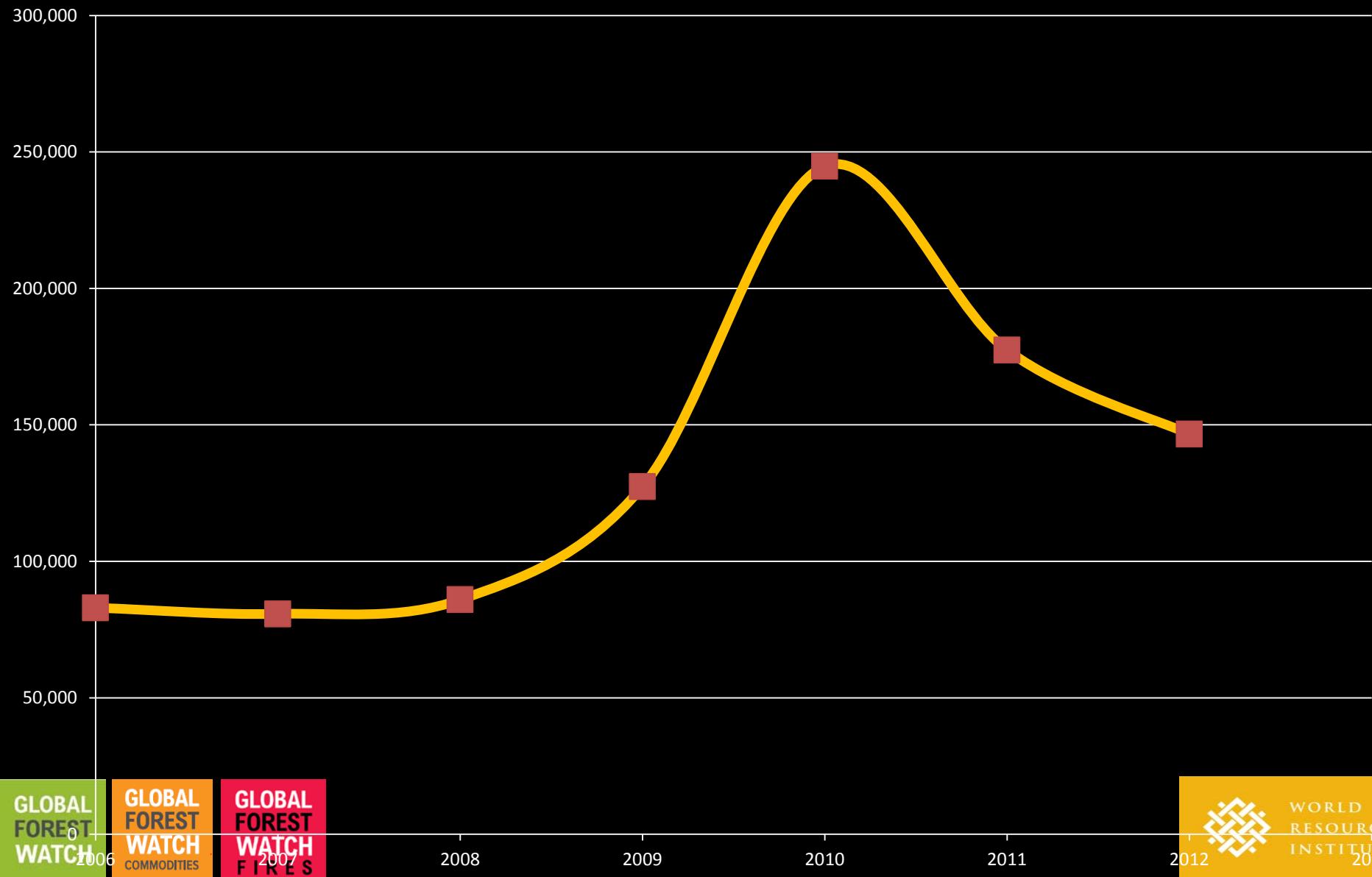
PEOPLE  
& ECONOMY

TENURE  
& LAWS

CLIMATE CHANGE

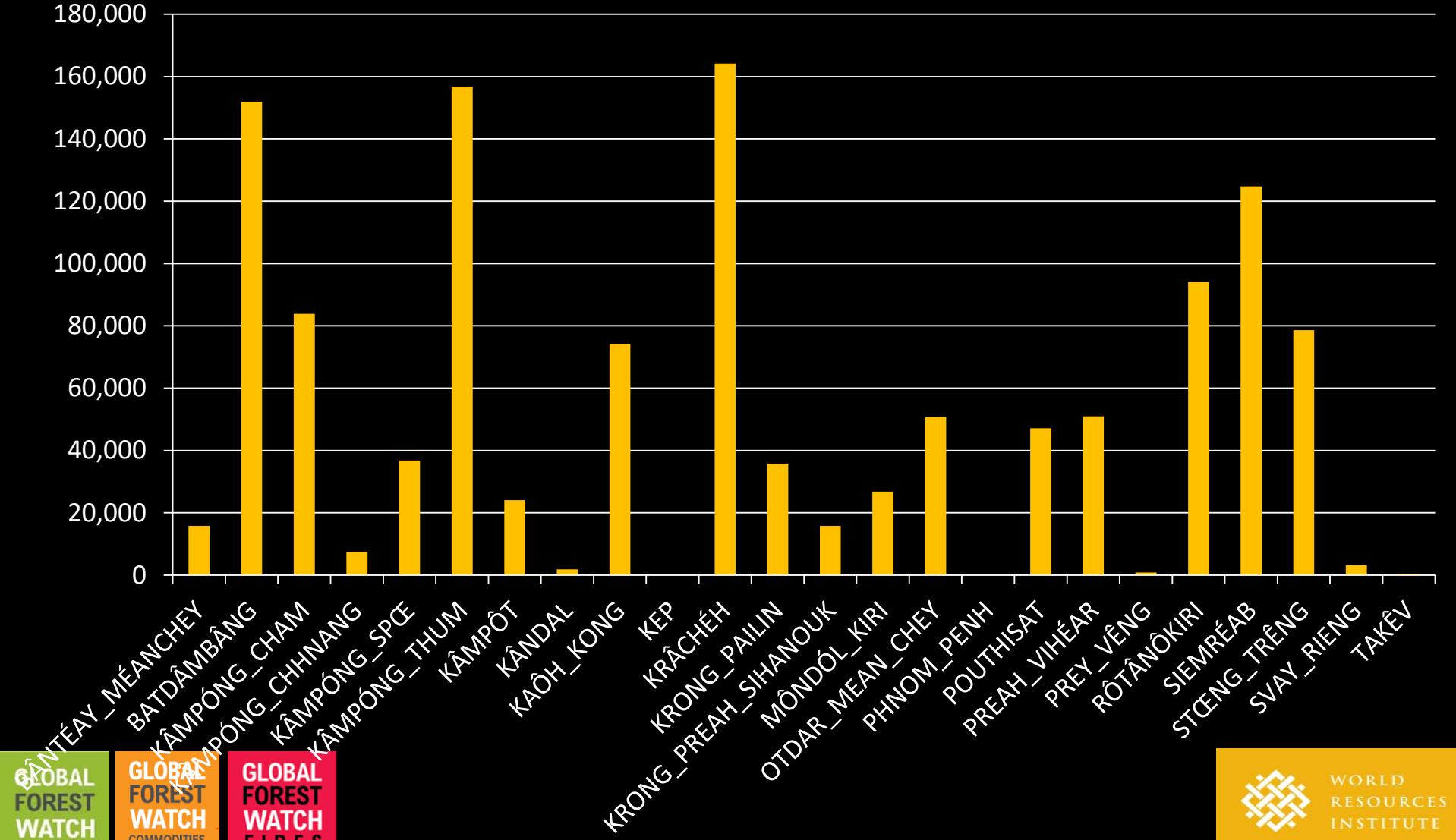
INTERNATIONAL  
AGREEMENTS

# Tree-cover Change Cambodia



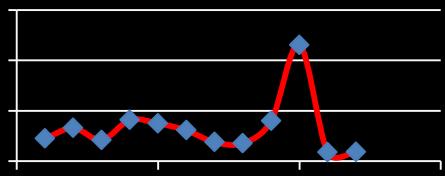
# Tree-cover change 2000-2012

## Cambodia Provinces

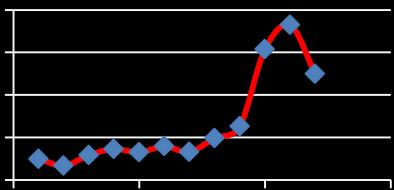


# Provinces annual change

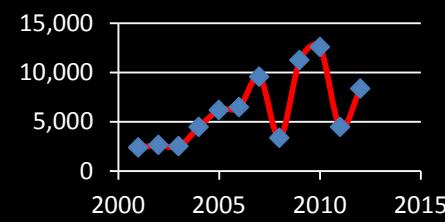
BÂNTÉAY\_MÉANCHEY



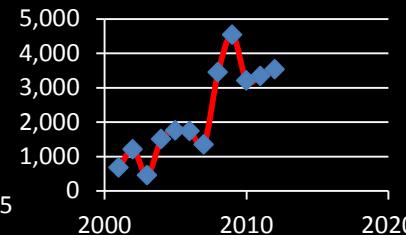
KÂMPÓNG\_THUM



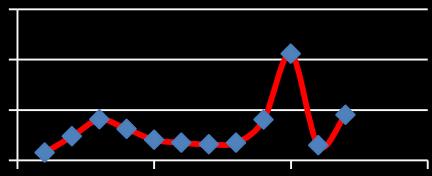
KAÔH\_KONG



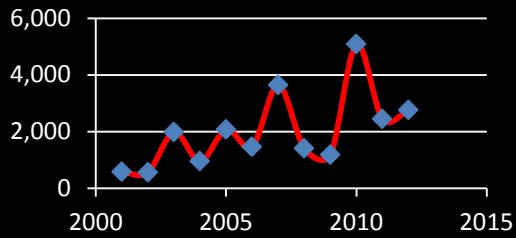
MÔNDÓL\_KIRI



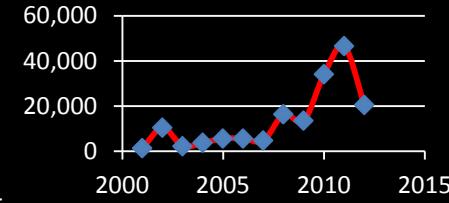
BATDÂMBÂNG



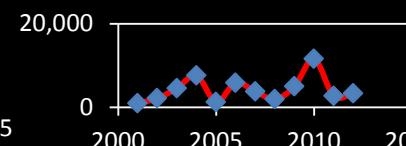
KÂMPÔT



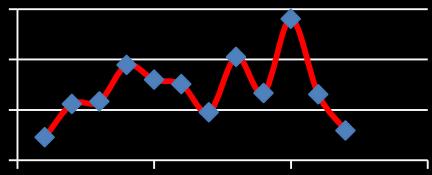
KRÂCHÉH



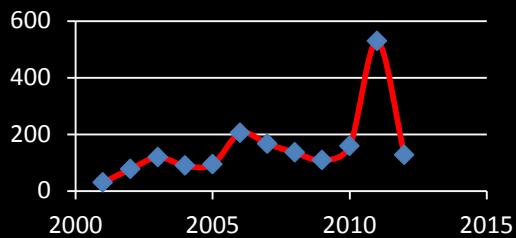
OTDAR\_MEAN\_C  
HEY



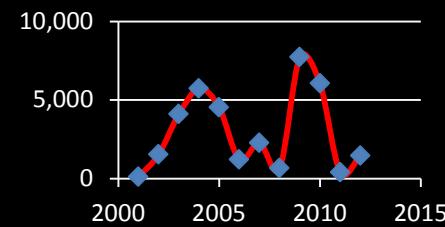
KÂMPÓNG\_CHAM



KÂNDAL



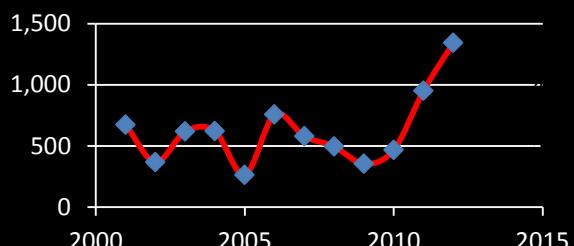
KRONG\_PAILIN



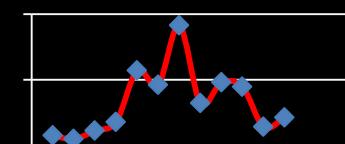
KÂMPÓNG\_SPŒ



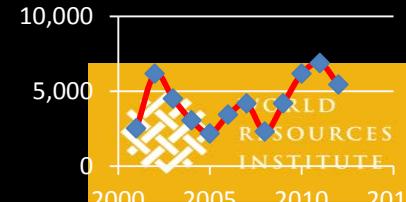
KÂMPÓNG\_CHHNANG



KRONG\_PREAH\_S  
IHANOUK

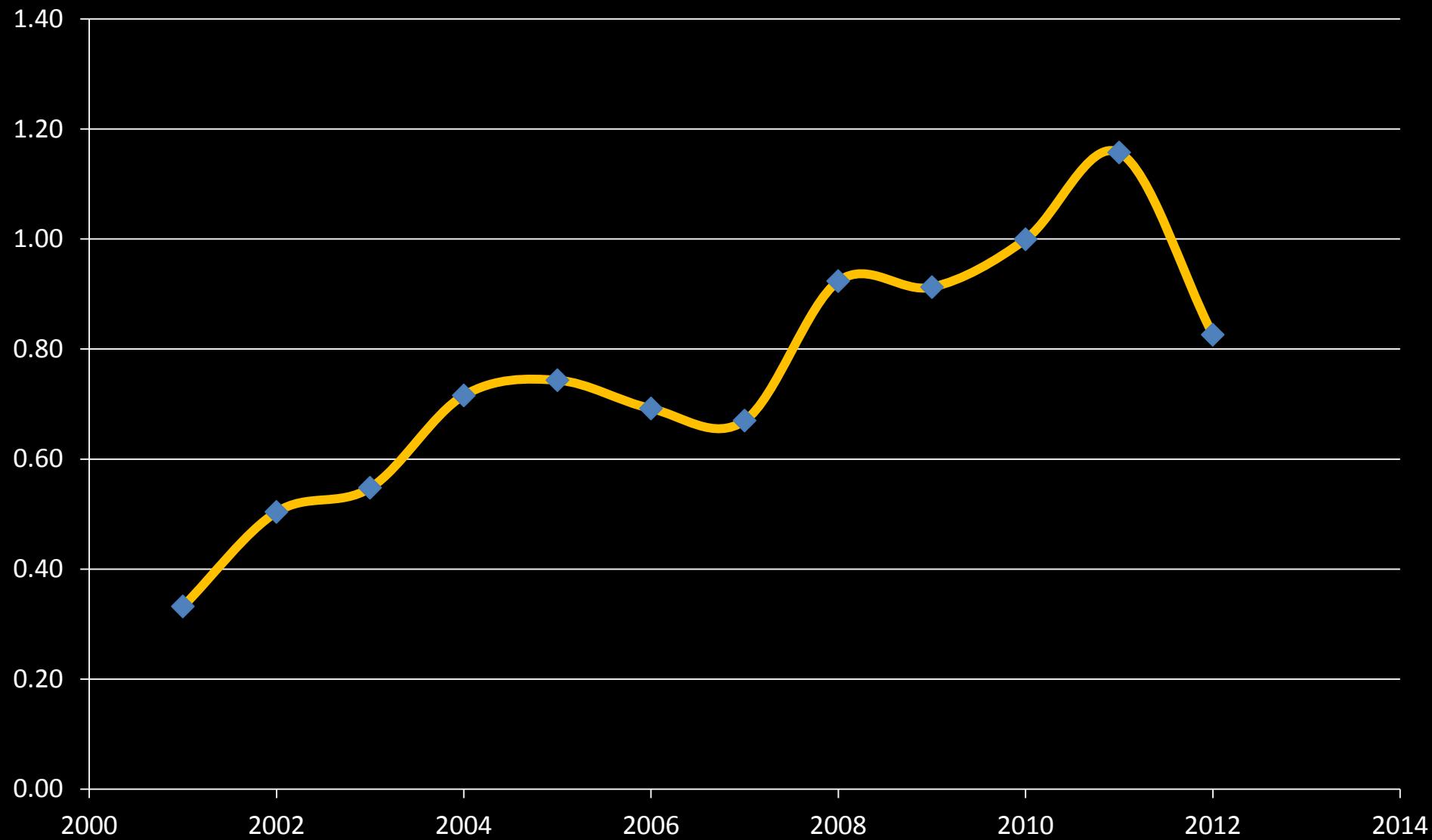


PREAH\_VIHÉAR

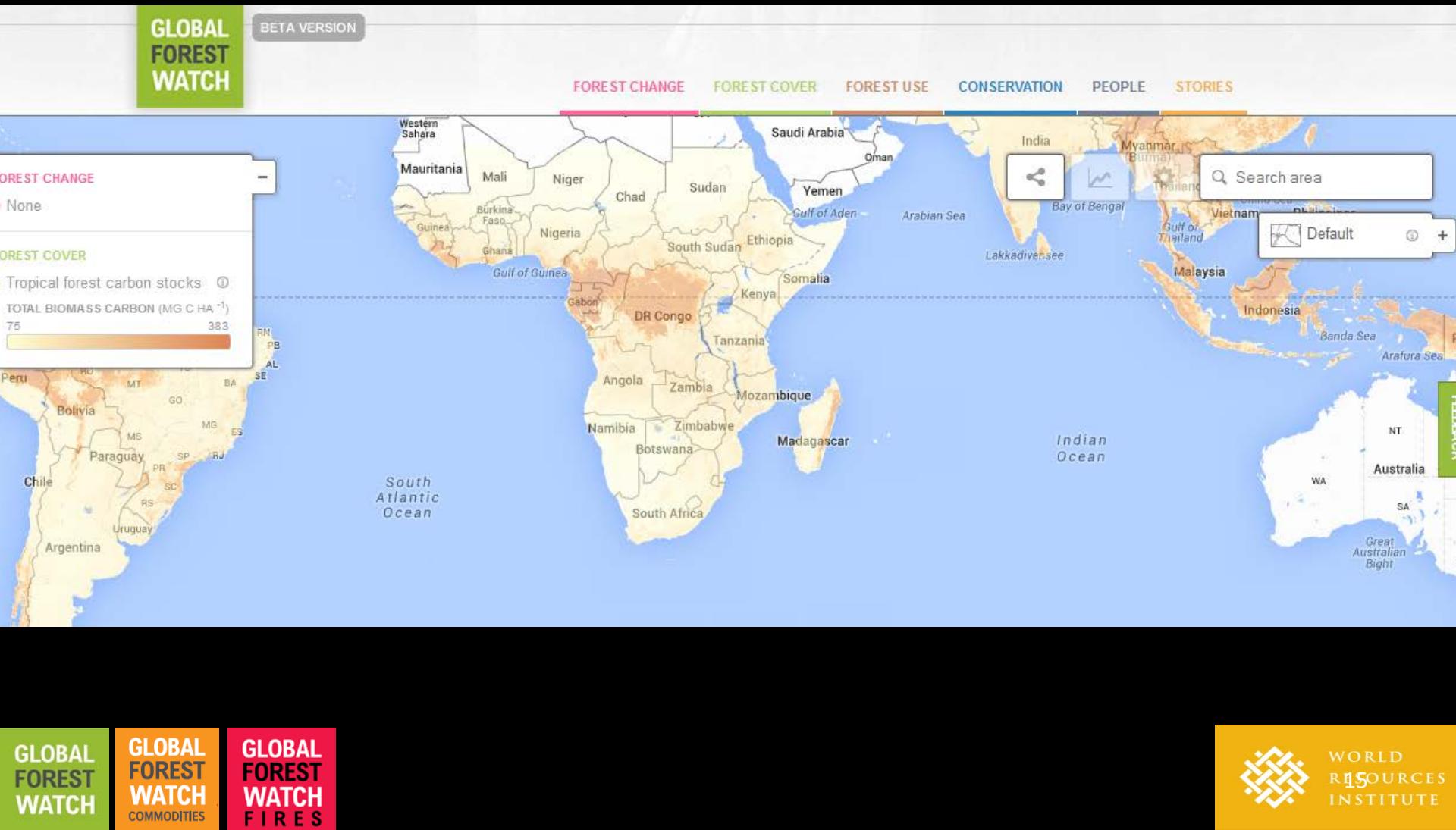


GLOBAL FOREST WATCH COMM 2005  
GLOBAL FOREST WATCH FIRES 2010  
WORLD RESOURCES INSTITUTE

# Avg PPlot Size of Tree cover Change - Cambodia Provinces



# Data sets



# Cambodia

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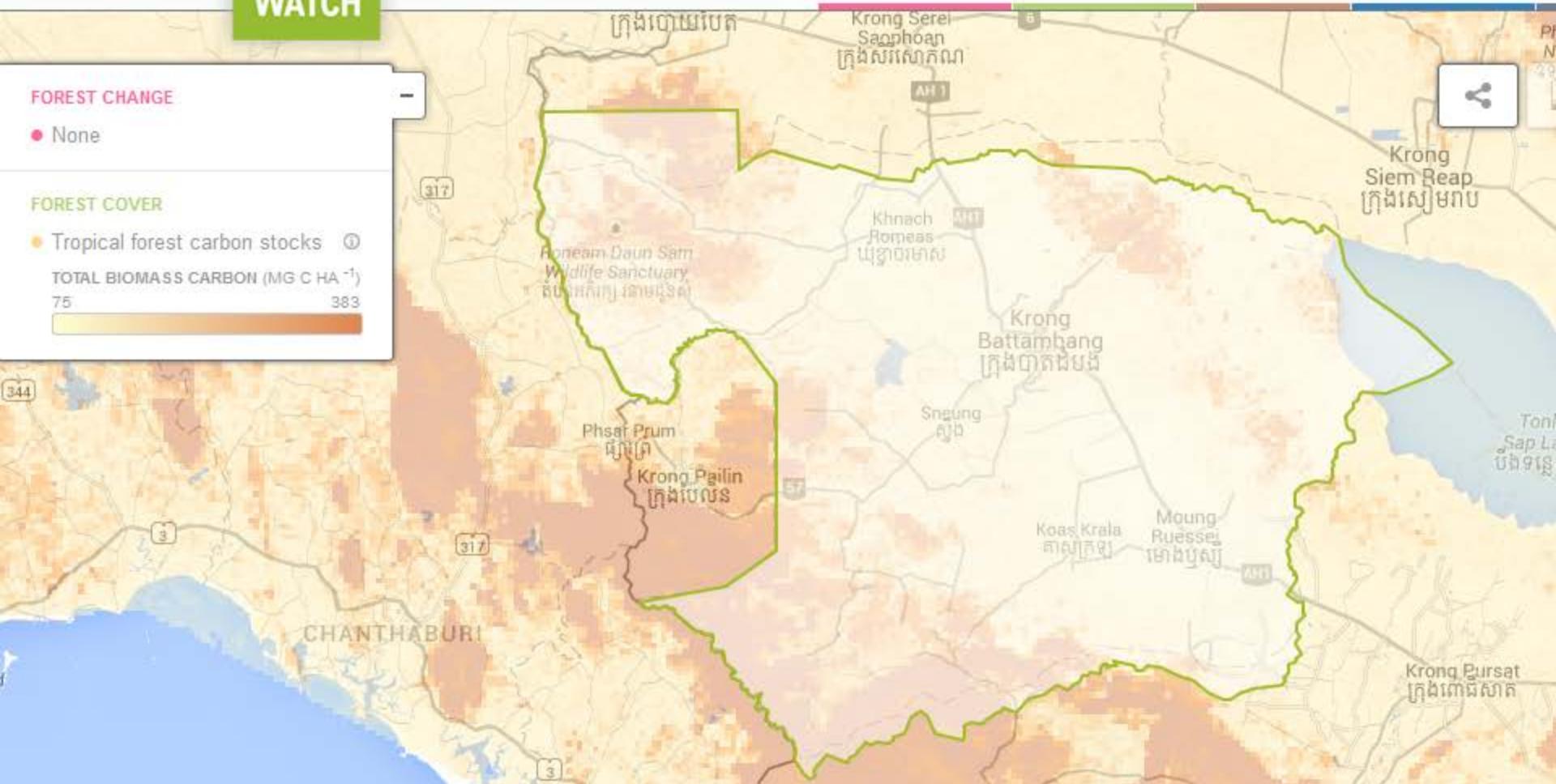
- None

## FOREST COVER

- ## • Tropical forest carbon stocks ①

### TOTAL BIOMASS CARBON (MG C HA<sup>-1</sup>)

75 383



# Data sources

Global Forest Watch hosts a wealth of data relating to forests. Some data have been developed by WRI or by GFW partner organizations. Other data are in the public domain and have been developed by governments, NGOs, and companies. The data vary in accuracy, resolution, frequency of update, and geographic coverage. The summaries below include links to further information such as methods and technical documents. Full download of the data sets is available for most sources.

DOWNLOAD BY COUNTRY +

MISSING A DATA SET? +

JOIN THE DISCUSSION +

## FOREST CHANGE

### FOREST COVER

### FOREST USE

### CONSERVATION

### PEOPLE

### STORIES

### BASE MAPS

### COUNTRIES

### CODE

### GFW ON GOOGLE EARTH ENGINE

### GFW ON ARCGIS ONLINE

### DATA POLICY

## Forest change

Forest change data measure tree cover loss, tree cover gain, or forest disturbance.

UNIVERSITY OF MARYLAND/GOOGLE TREE COVER LOSS (annual, 30m, global) ▼

UNIVERSITY OF MARYLAND/GOOGLE TREE COVER GAIN (12 years, 30m, global) ▼

FORMA ALERTS (monthly, 500m, humid tropics) ▼

IMAZON SAD ALERTS (monthly, 250m, Brazilian Amazon) ▼

QUICC ALERTS (quarterly, 5km, <37 degrees north) ▼

NASA ACTIVE FIRES (daily, 1km, global) ▼

# Constantly improving

- Better data
- Country relevant data
- More data
- Specialized apps

# Acquisition Strategy

Incorporate publicly available data (e.g. FAO Land Cover Data)

Build relationships through partnerships to move data into public domain (e.g. RSPO)

Finance the creation of new datasets to fill key data gaps (e.g. IFL 2010)

# DATA PIPELINE | Forest Use

Logging Malaysia, Liberia, Indonesia, Cambodia

Mining Sierra Leone

Timber Malaysia, Liberia, Indonesia, Cambodia

Oil palm Cameroon

\*Goal: concession data for all countries

NEW: Planted area. Transparent World

Malaysia, Liberia, Colombia, Indonesia, Brazil.

\*Goal: global coverage

\*\*\*Commissioned by WRI, Public data, Partnerships, \*\*\*

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An aerial photograph showing a patchwork of agricultural fields in green, brown, and red. Several white smoke plumes rise from the fields, indicating burning or agricultural activity. The fields are organized into rectangular plots separated by thin roads.

Partnerships, partnerships, partnership