



Search

ext: Restaurants

Get Directions History

Places

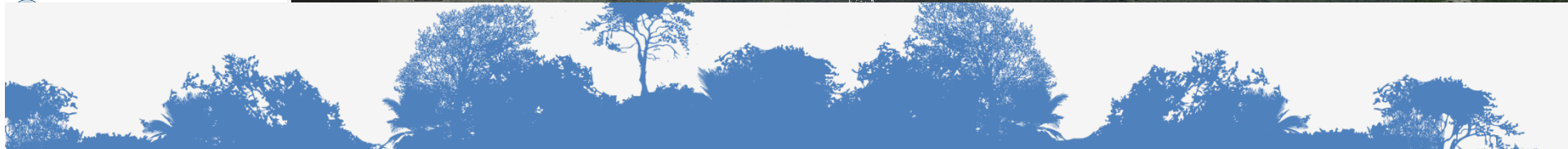
- 53 - Sampling unit ID : CP1566E
- 54 - Sampling unit ID : CP1566S
- 55 - Sampling unit ID : CP1566SE
- 56 - Sampling unit ID : CP1567
- 57 - Sampling unit ID : CP1567E
- 58 - Sampling unit ID : CP1567S
- 59 - Sampling unit ID : CP1567SE
- 60 - Sampling unit ID : CP1568S
- 61 - Sampling unit ID : CP1642E
- 62 - Sampling unit ID : CP1642SE
- 63 - Sampling unit ID : CP1643
- 64 - Sampling unit ID : CP1643E
- 65 - Sampling unit ID : CP1643S
- 66 - Sampling unit ID : CP1643SE
- 67 - Sampling unit ID : CP1644
- 68 - Sampling unit ID : CP1644E
- 69 - Sampling unit ID : CP1644S
- 70 - Sampling unit ID : CP1644SE
- 71 - Sampling unit ID : CP1645
- 72 - Sampling unit ID : CP1645E
- 73 - Sampling unit ID : CP1645S
- 74 - Sampling unit ID : CP1645SE
- 75 - Sampling unit ID : CP1646

Layers

Earth Gallery >>

- Primary Database
  - Borders and Labels
  - Places
  - Photos
  - Roads
  - 3D Buildings
  - Ocean
  - Weather
  - Gallery
  - Global Awareness
  - More

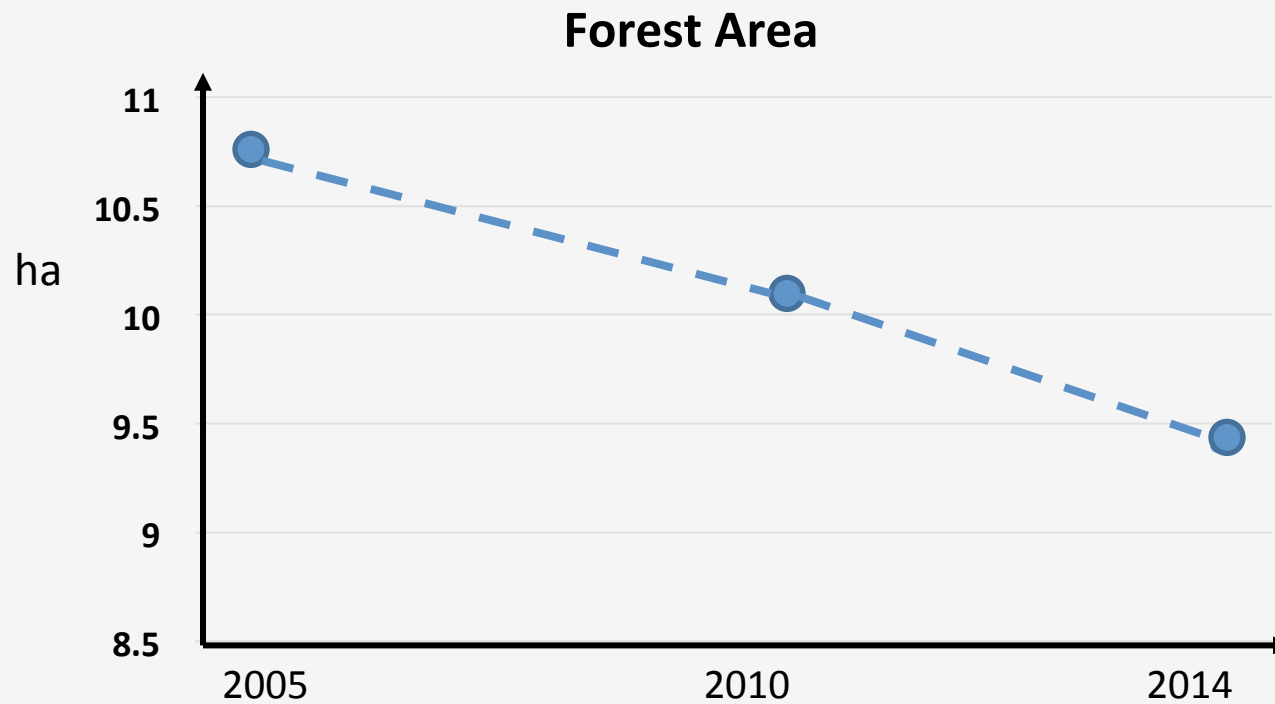
# Open-Source Approaches to Assessing Activity Data: *Open Foris Collect Earth*



- **Context:** *Growing demand for obtaining **accurate data and information** on the state of forest resources...*
- **Objective:** Develop and support **open source, freely available software tools** empowering countries and institutions in forest monitoring, assessment and reporting
- Main FAO projects involved so far:
  - Forest Monitoring and Assessment (NFMA)
  - BMU-ICI FAO-INPE REDD+ Project
  - **UN-REDD Partner countries (Asia/Pacific): PNG, Bhutan, Mongolia, Lao PDR, Philippines**
  - Global Forest Resources Assessment (FRA)

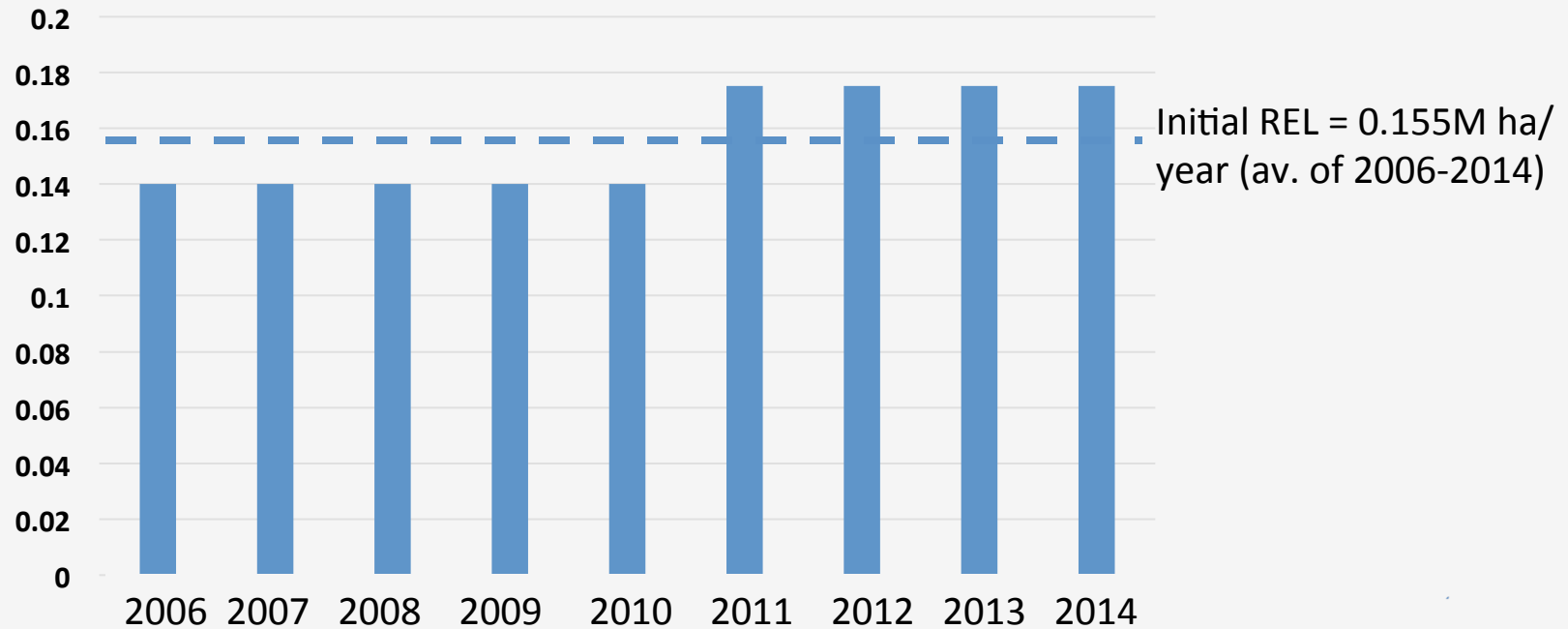


Scenario 1: Only map data for 3 years (2005, 2010, 2014)



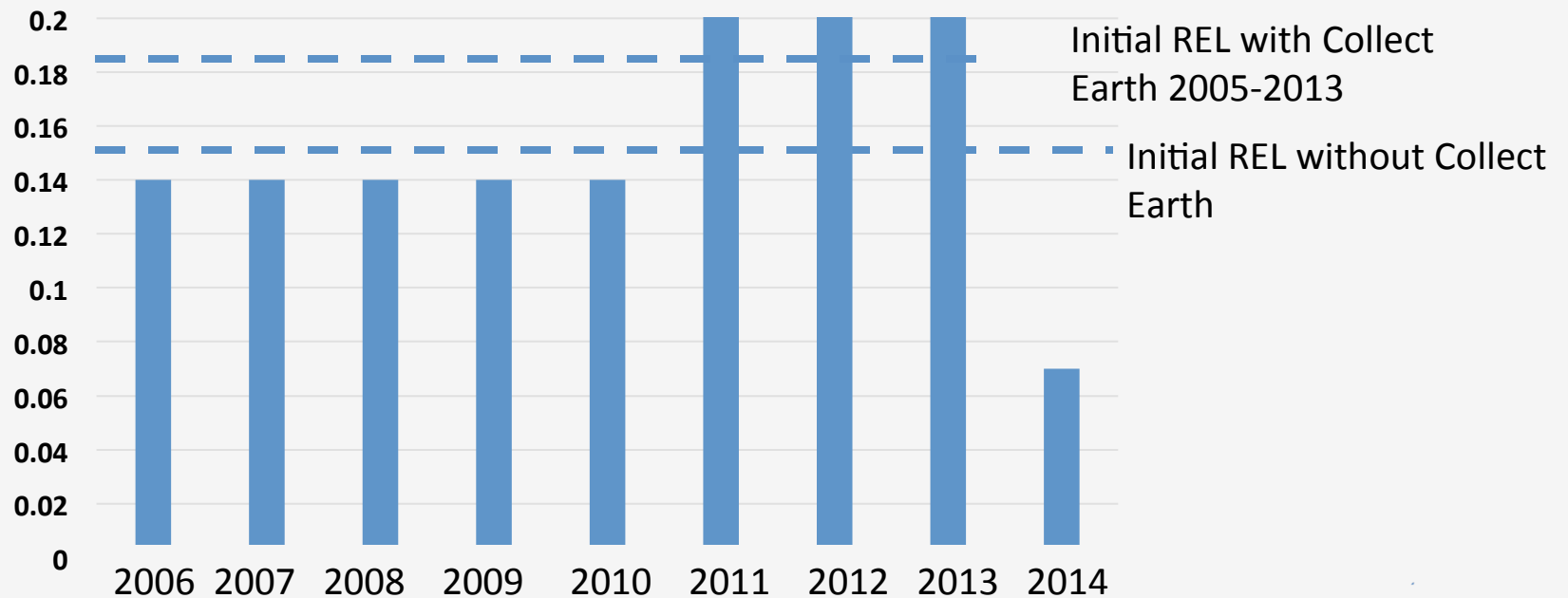
Scenario 1: Only map data for 3 years (2005, 2010, 2014)

## Annual Deforestation Rate



## Scenario 2: Map data supplemented with Collect Earth data

### Annual deforestation rate



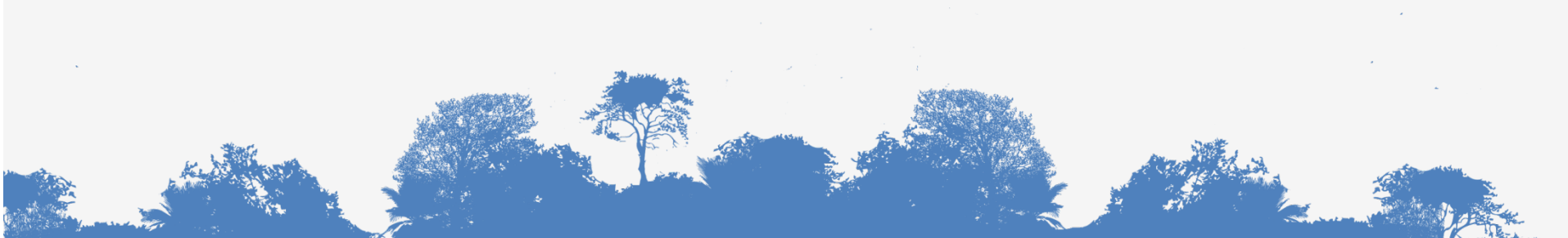
## RBP Comparison with and without Collect Earth data

Assume:

- Country submits a BUR in 2017 with a Technical Annex showing an average deforestation rate for 2014-2017 of 0.08Mha/year
- Default carbon density = 100t/ha
- Carbon price = \$3/t

RBP without Collect Earth will be  $4 * (0.155 - 0.08M) * 100t/ha * \$3/t = \mathbf{\$9M}$

RBP with Collect Earth will be  $0.07 + (4 * (0.179 - 0.08M)) * 100t/ha * \$3/t = \mathbf{\$14M}$



## Methodological Basis

- **Probability sampling:** every unit in the population has a chance ( $>0$ ) of being selected in the sample and this probability can be accurately determined
  - Can produce **unbiased estimates of population totals**
- **Point sampling:** involves selecting specific "points" at which to collect specific data: information about those points can then be **used to say something about a phenomena over a broader area**
- **Visual interpretation:**
  - Critical consideration: **consistency** of interpretation
- **IPCC compatibility:** Activity Data results (LUC matrices) directly exportable into **GHG inventory reporting tables**
  - **Land use:** refers to the description of the socio-economic function of the land



# UN-REDD PROGRAMME

## Sampling approach: Open Foris Collect Earth



Empowered lives.  
Resilient nations.

The screenshot shows the Google Earth interface with a 3D terrain map of a mountainous region. A list of sampling units is visible on the left side of the interface. The map shows a river valley with a dam labeled 'Dam'. The interface includes a search bar, a menu bar (File, Edit, View, Tools, Add, Help), and a toolbar with various navigation and tool icons. The bottom of the interface shows the Google Earth logo, copyright information, and a status bar with coordinates and elevation data.

Search

Search

ex: Restaurants [Get Directions](#) [History](#)

Places

- 53 - Sampling unit ID : CP1566E
- 54 - Sampling unit ID : CP1566S
- 55 - Sampling unit ID : CP1566SE
- 56 - Sampling unit ID : CP1567
- 57 - Sampling unit ID : CP1567E
- 58 - Sampling unit ID : CP1567S
- 59 - Sampling unit ID : CP1567SE
- 60 - Sampling unit ID : CP1568S
- 61 - Sampling unit ID : CP1642E
- 62 - Sampling unit ID : CP1642SE
- 63 - Sampling unit ID : CP1643
- 64 - Sampling unit ID : CP1643E
- 65 - Sampling unit ID : CP1643S
- 66 - Sampling unit ID : CP1643SE
- 67 - Sampling unit ID : CP1644
- 68 - Sampling unit ID : CP1644E
- 69 - Sampling unit ID : CP1644S
- 70 - Sampling unit ID : CP1644SE
- 71 - Sampling unit ID : CP1645
- 72 - Sampling unit ID : CP1645E
- 73 - Sampling unit ID : CP1645S
- 74 - Sampling unit ID : CP1645SE
- 75 - Sampling unit ID : CP1646

Layers [Earth Gallery >>](#)

- Primary Database
- Borders and Labels
- Places
- Photos
- Roads
- 3D Buildings
- Ocean
- Weather
- Gallery
- Global Awareness
- More

© 2013 Cnes/Spot Image  
© 2013 Mapabc.com  
© 2013 Google  
Image © 2013 DigitalGlobe

Google earth

Tour Guide 2006 Imagery Date: 1/27/2006 27°06'26.78" N 89°47'33.58" E elev 2071 m eye alt 7.85 km





# UN-REDD P R O G R A M M E

## Sampling approach:

Open Foris Collect Earth



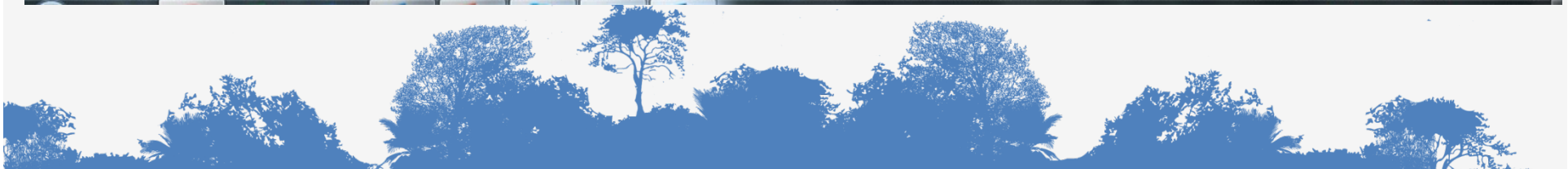
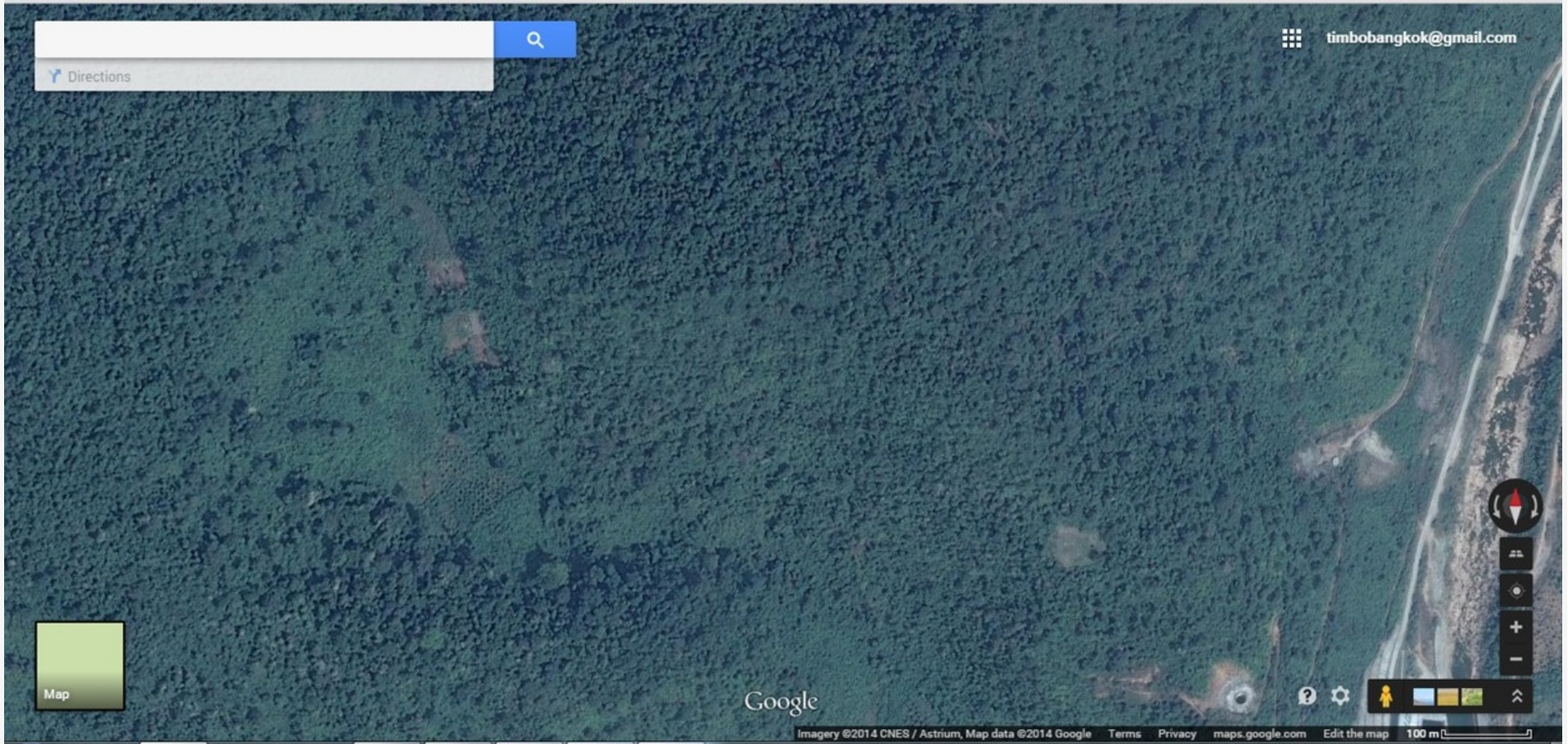
Step 1: Use the most recent high-resolution satellite images to inspect sample plots (which most usefully are the same as the NFI plots)

Step 2: For plots which are forest, it can be assumed that they were forest at the start of the time sequence. E.g., if forest in 2013, it was forest in 2010

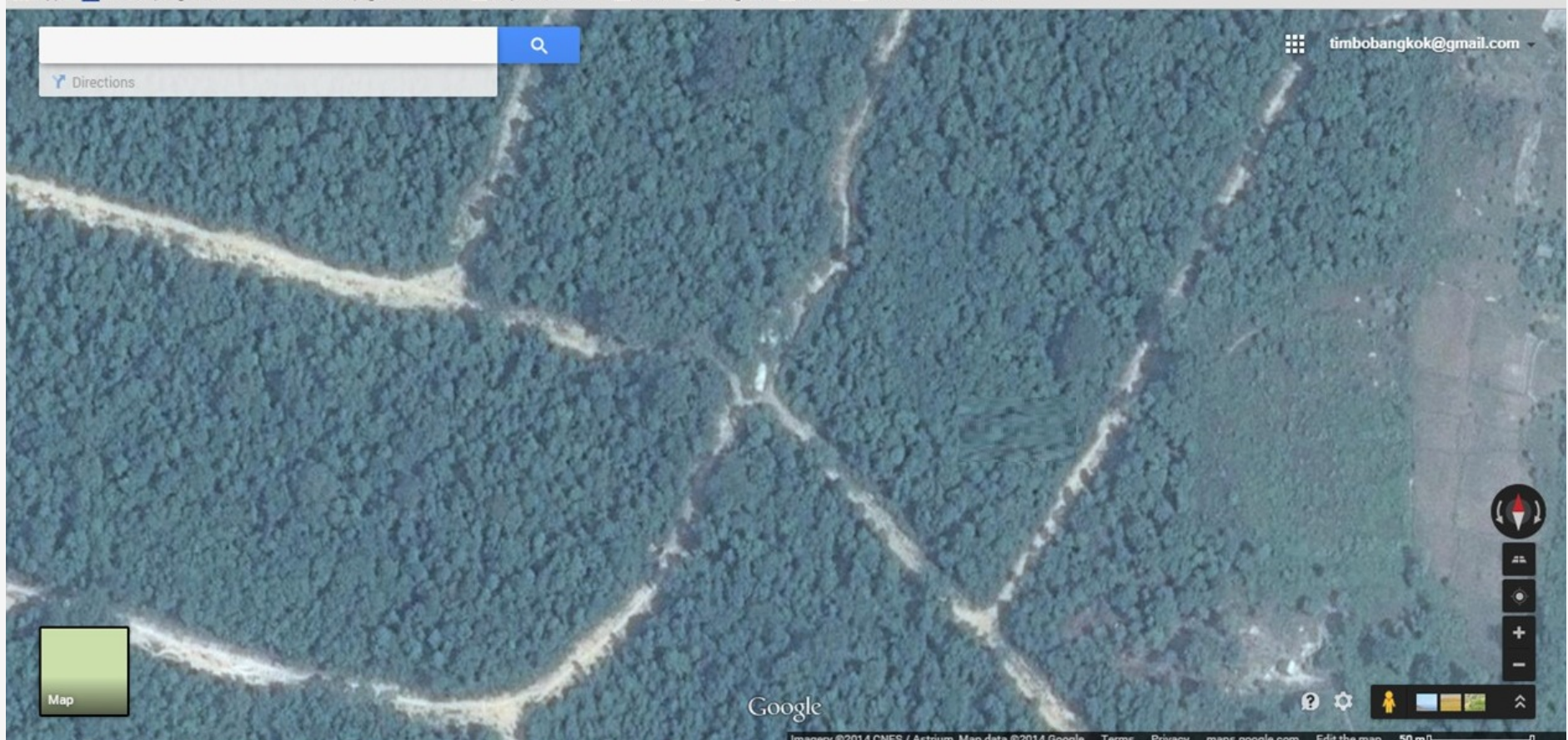
Step 3: For plots that are non-forest in 2013, the customized software opens a window with medium resolution Landsat imagery. This can be inspected annually to determine when forest became non-forest

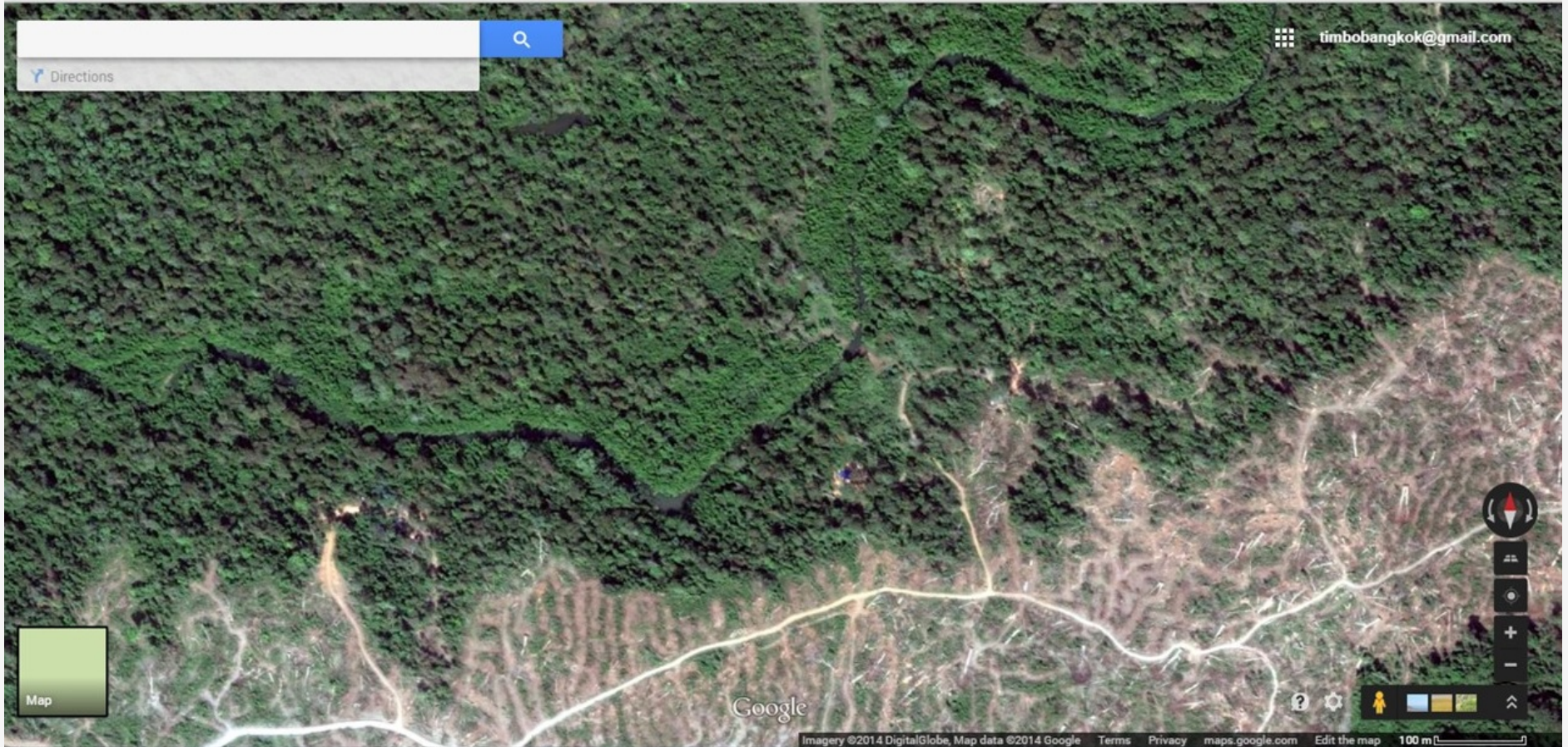


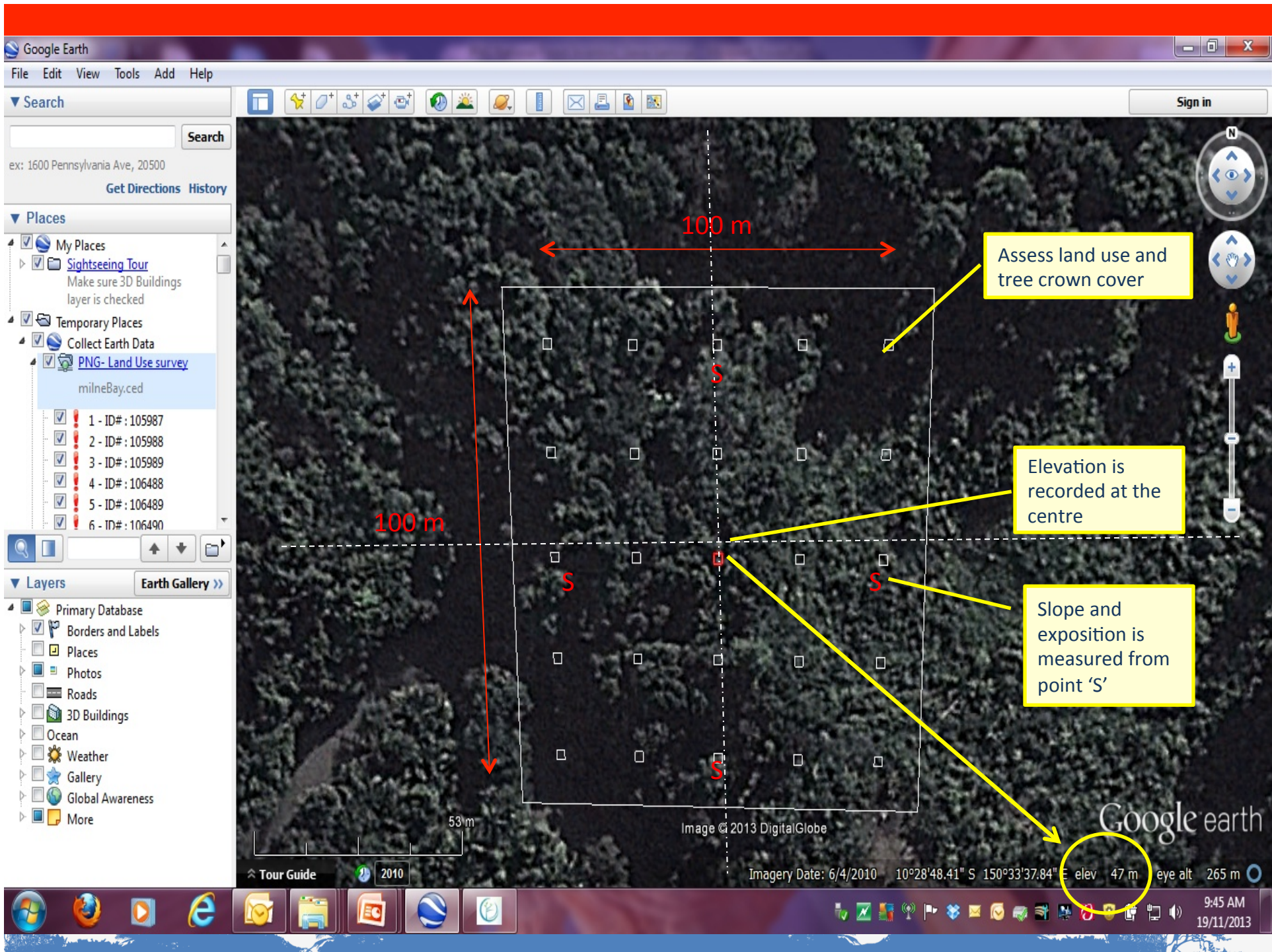
# Example for Cambodia: Bokor

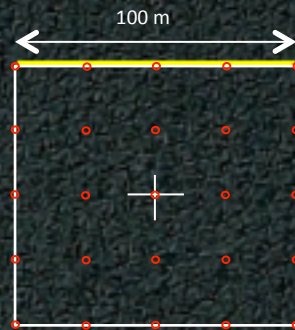


# Example for Cambodia: Ream NP









# Results-based payment for REDD+



## for REDD+

Recognizing the **key role** that the **Green Climate Fund** will play in channeling financial resources, Decision 9/CP.19 reaffirms that results-based finance provided to developing countries for the full implementation of REDD+, that is new, additional and predictable may come from a variety of sources, **public and private, bilateral and multilateral**, including **alternative sources**, as referred to in decision 2/CP.17, paragraph 65;





# What are the sources currently (or shortly) available?



- Green Climate Fund – uses the Warsaw Framework
- Bilateral initiatives such as
  - Norway – bilateral agreements with policy targets and emission reductions
  - Germany REDD+ Early Movers – verified emission reductions from deforestation achieved in the past (supposes FREL/REL and MRV capacity already)
- Multilateral initiatives (FCPF Carbon Fund, BioCarbon Fund) – own methodological framework
- Voluntary markets – own methodological frameworks
- Compliance markets – own methodological frameworks



# Non Warsaw Framework RBF Options



Source	Advantages	Disadvantages
Voluntary markets	Already exists; funding available	Very expensive and time consuming; difficult to sell credits; small scale
WFR	Simple, flexible, recognized by all donors, will be at scale	Just setting up
Bilateral donors	Flexible, can be at scale	No obvious donors (no more from Norway)
FCPF C-Fund	Already exists; limited funding available	Complex and time consuming; no more countries
REM	Already exists	Few countries involved (mainly LAC); must have already reduced emissions

