

Towards REDD+: the Papua New Guinea efforts in building its National Forest Monitoring System



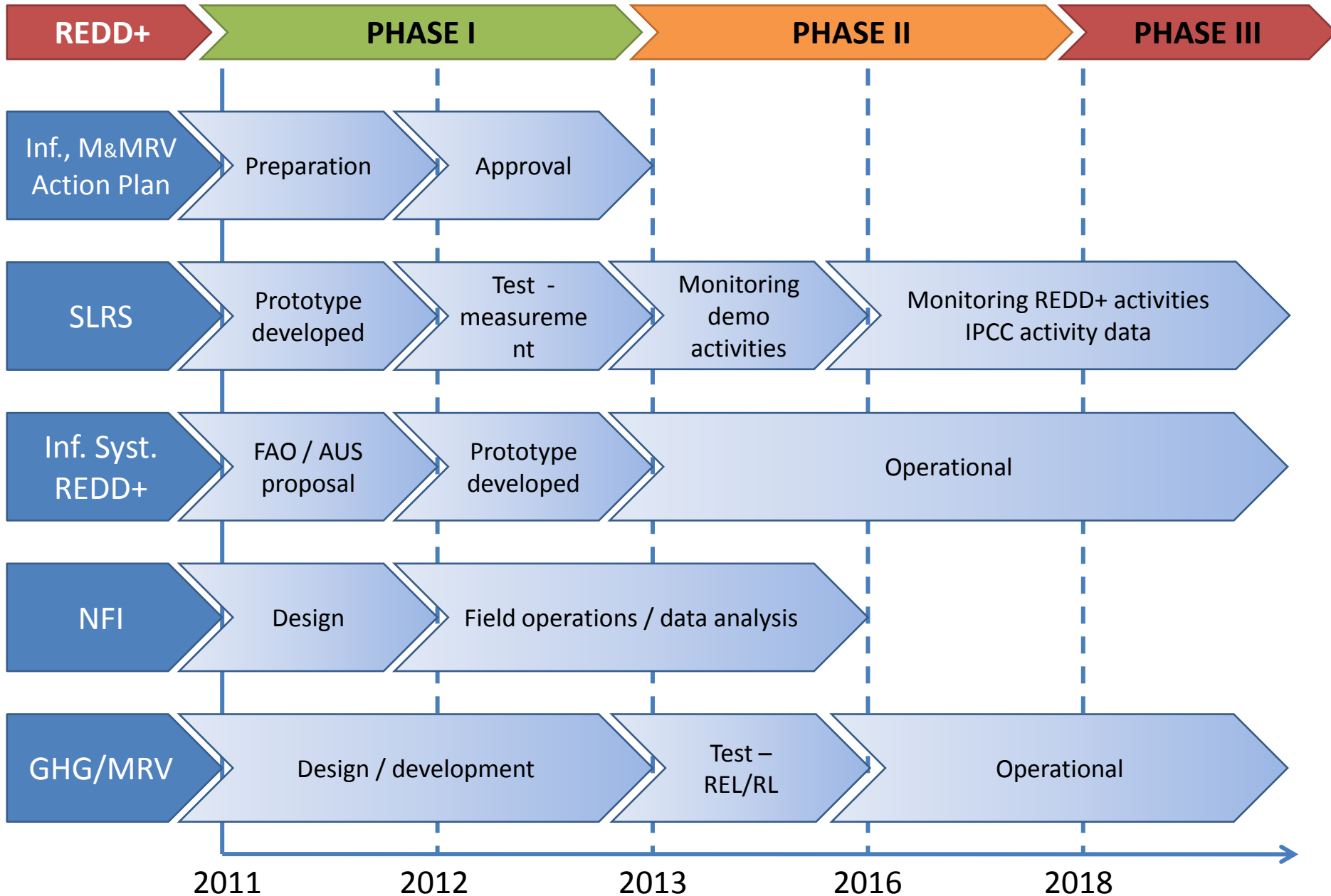
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Environment & Conservation
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HIGHLIGHTS:

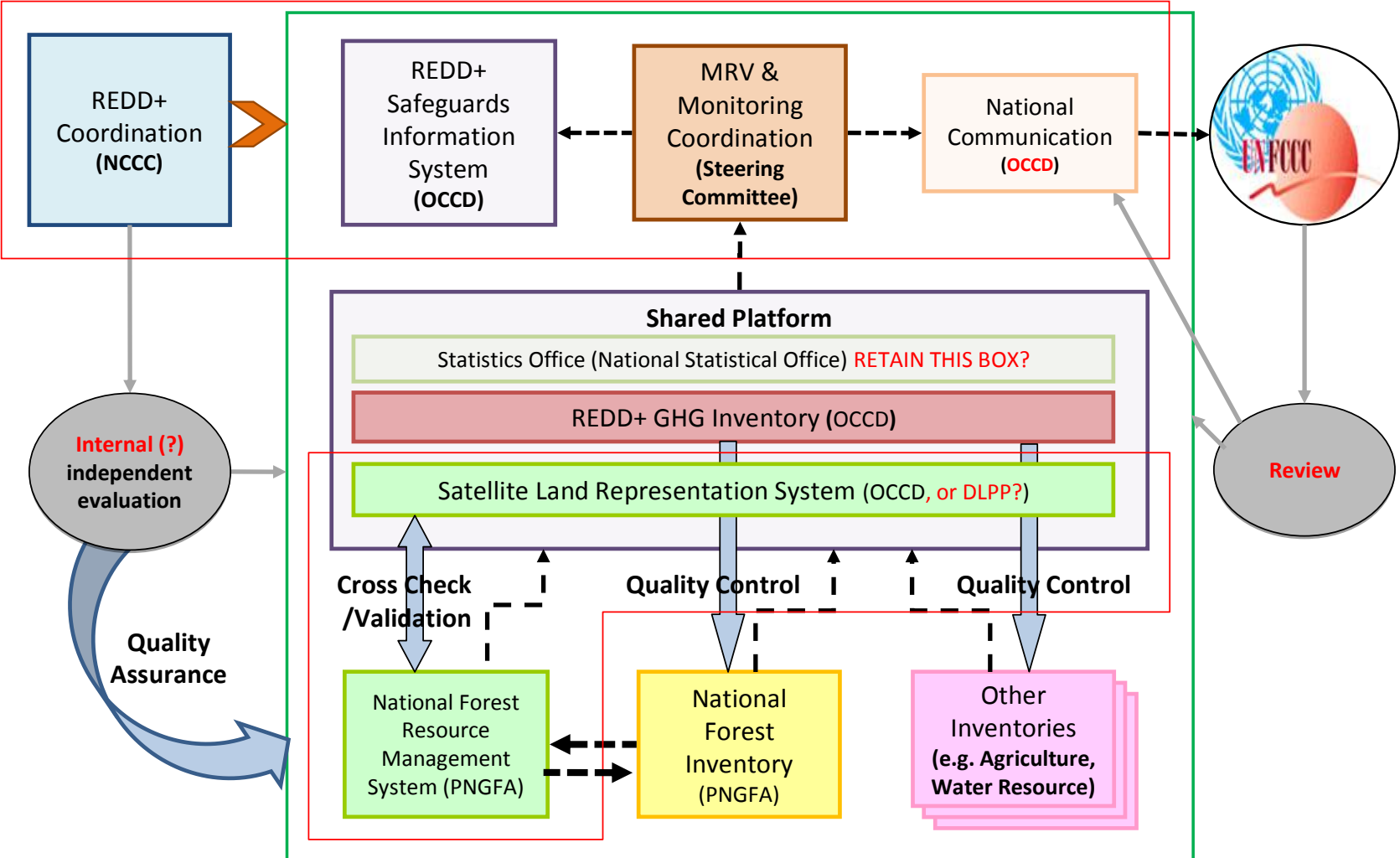
- PNG is realizing its “National Forest Monitoring System” as a system that will address all the information, monitoring and MRV needs under the Convention;
- The National Forest Monitoring System will be developed with a multiple purposes approach, e.g. forests, land use, land tenure, food security, biodiversity and rural livelihoods;
- The National Forest Monitoring System is a long-term effort that will be developed with a clear and strong institutional base;
- The design and implementation of the National Forest Monitoring System is including a full and effective participation and capacity development of all relevant institutions and stakeholders;
- The National Forest Monitoring System will provide free access, transparency and timely delivery of all relevant data and information to all relevant stakeholders;
- The National Forest Monitoring System is currently under development with contributions and supports from UN-REDD Programme, AusAID (Australia), and JICA (Japan).



PNG INFORMATION, MONITORING & MRV ROAD MAP



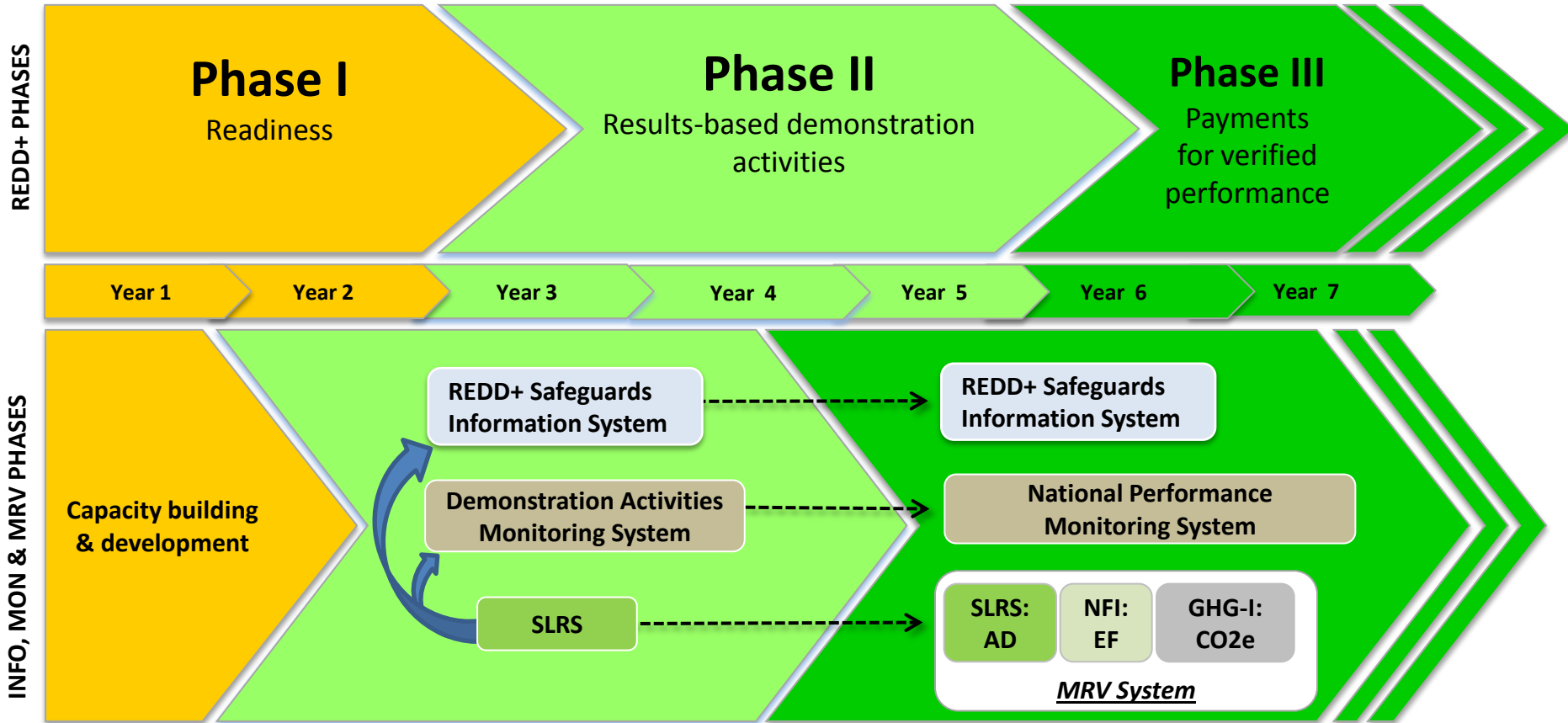
INSTITUTIONAL ARRANGEMENT:



REDD+ Phase 2 - - - -> Information flow
 REDD+ Phase 3 - - - -> External coordination > Overall coordination



REDD+ PHASES & NFMS ELEMENTS: Bringing it all together



ONGOING ACTIVITIES:

- **MRV Technical Working Group:** coordinated by OCCD with the participation of all the country relevant stakeholders;
- **NEW 2011 Forest Map:** coordinated by PNG Forest Authority with technical support from JICA. This map will be use as baseline to assess past and future forest changes;
- **1st National Forest Inventory:** coordinated by PNG Forest Authority with technical support from UN-REDD. The NFI will be the key element to assess forest related emission/removal factors
- **1st Information, Monitoring & MRV Action Plan:** coordinated by OCCD participation of all relevant country institutions and relevant stakeholders;
- **Prototype for a Satellite Land Monitoring System:** coordinated by OCCD with technical support from UN-REDD and INPE. A team of PNG experts has attended a course in Brazil and in Rome, the beta version of the prototype with its web-portal will be shown in this presentation



START-UP PHASE:

development of a prototype for the National Forest Monitoring System

- Build on existing national forest monitoring experiences
- FAO (UN-REDD) / INPE collaboration
- Two components:
 - TerraPapua platform
 - National forest monitoring WEB-Portal
- Combination of open-source database, user interface, tools and algorithms adapted according to country needs
- Free-of-charge and supported by analysis and programming teams in Brazil (INPE) and FAO
- linkage of information from other technical partners and contributors for analysis and verification.



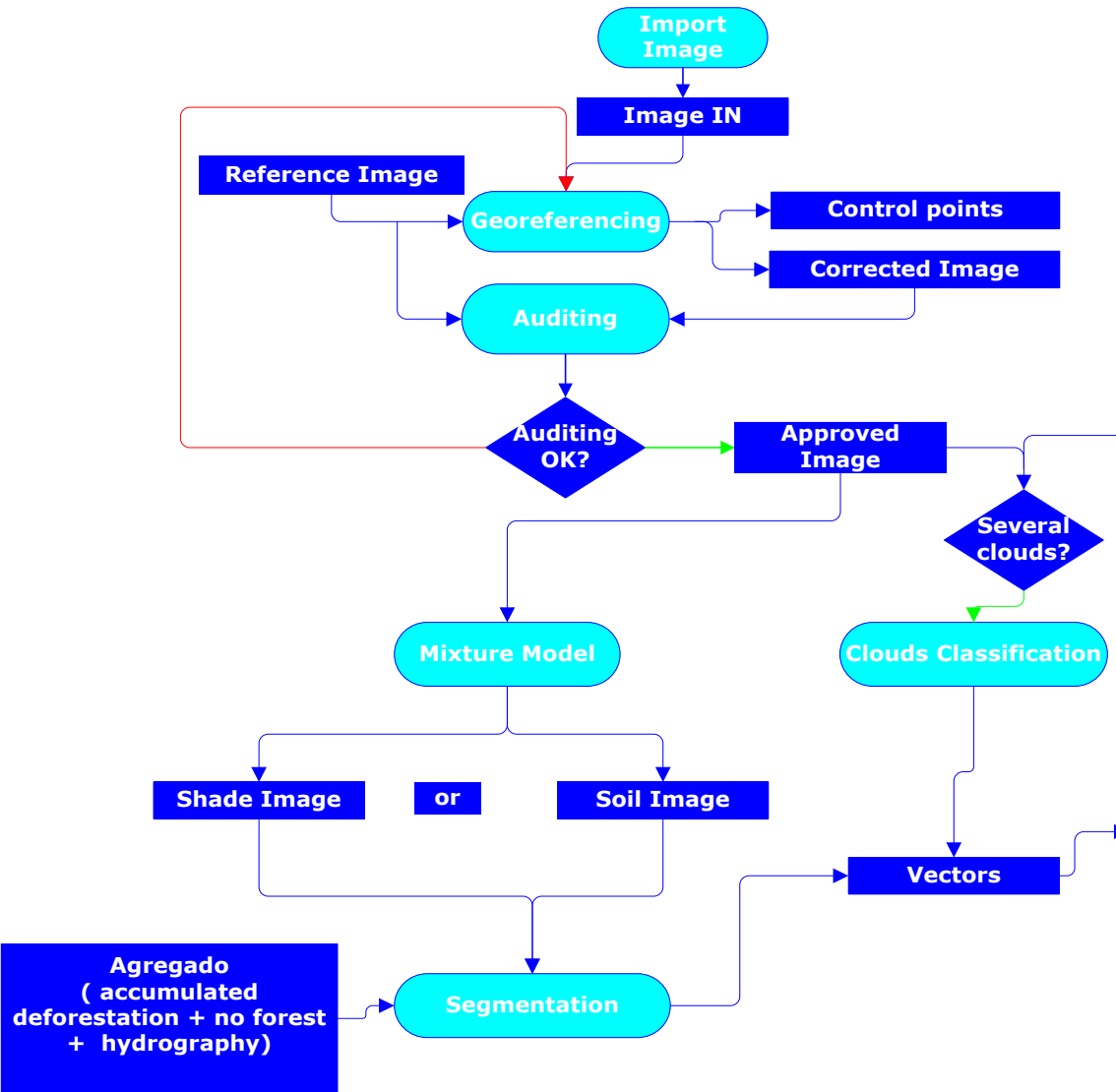
BUILD ON TERRAAMAZON PLATFORM:



- RS/GIS software platform designed to be a multi-user editor of geographic vectorial data stored in a unified database
- Free of charge (open-source)
- Self sustaining system (open to improvements)
- Up to 20 concurrent users during the interpretation phase



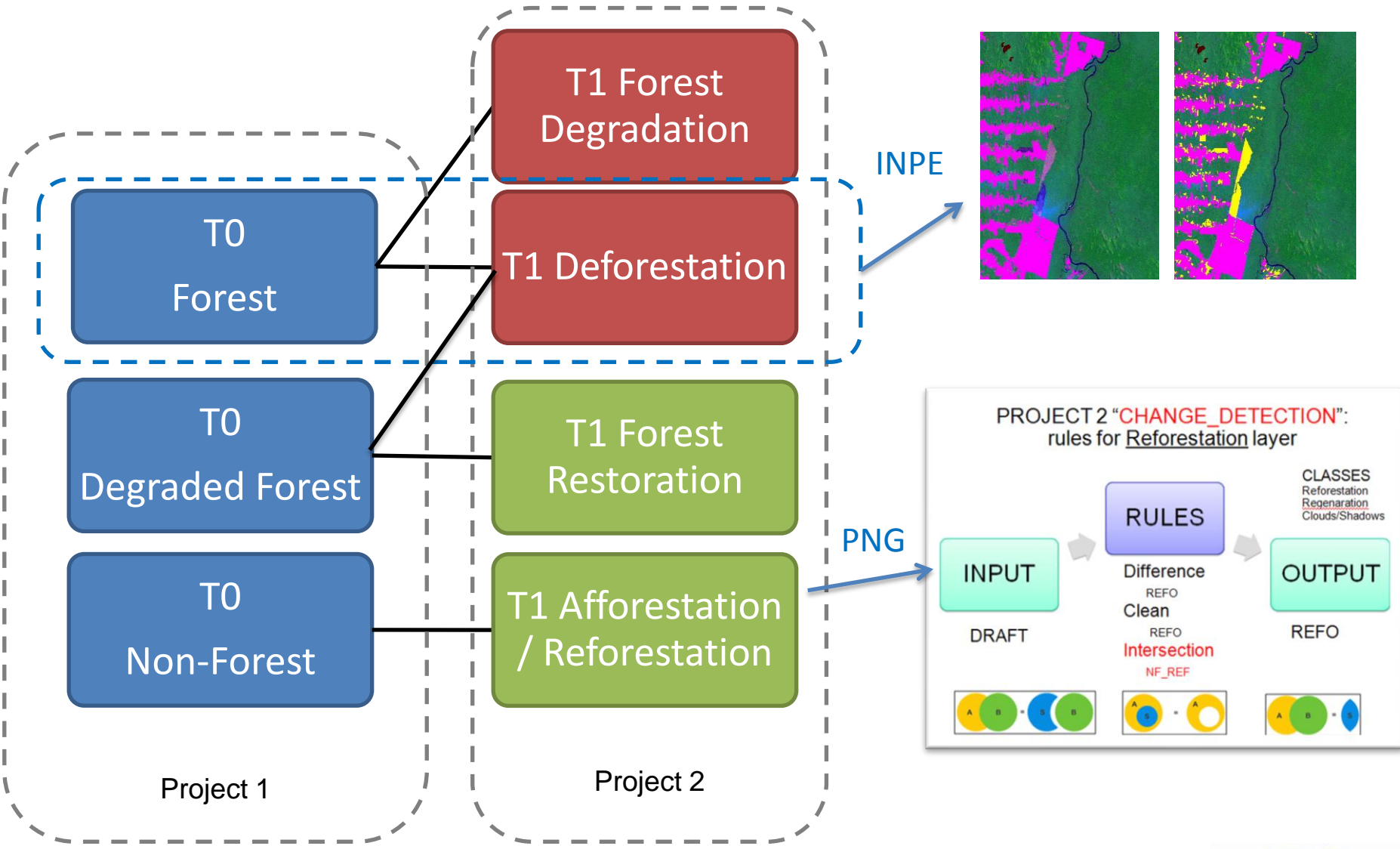
TERRAAMAZON IN BRAZIL:



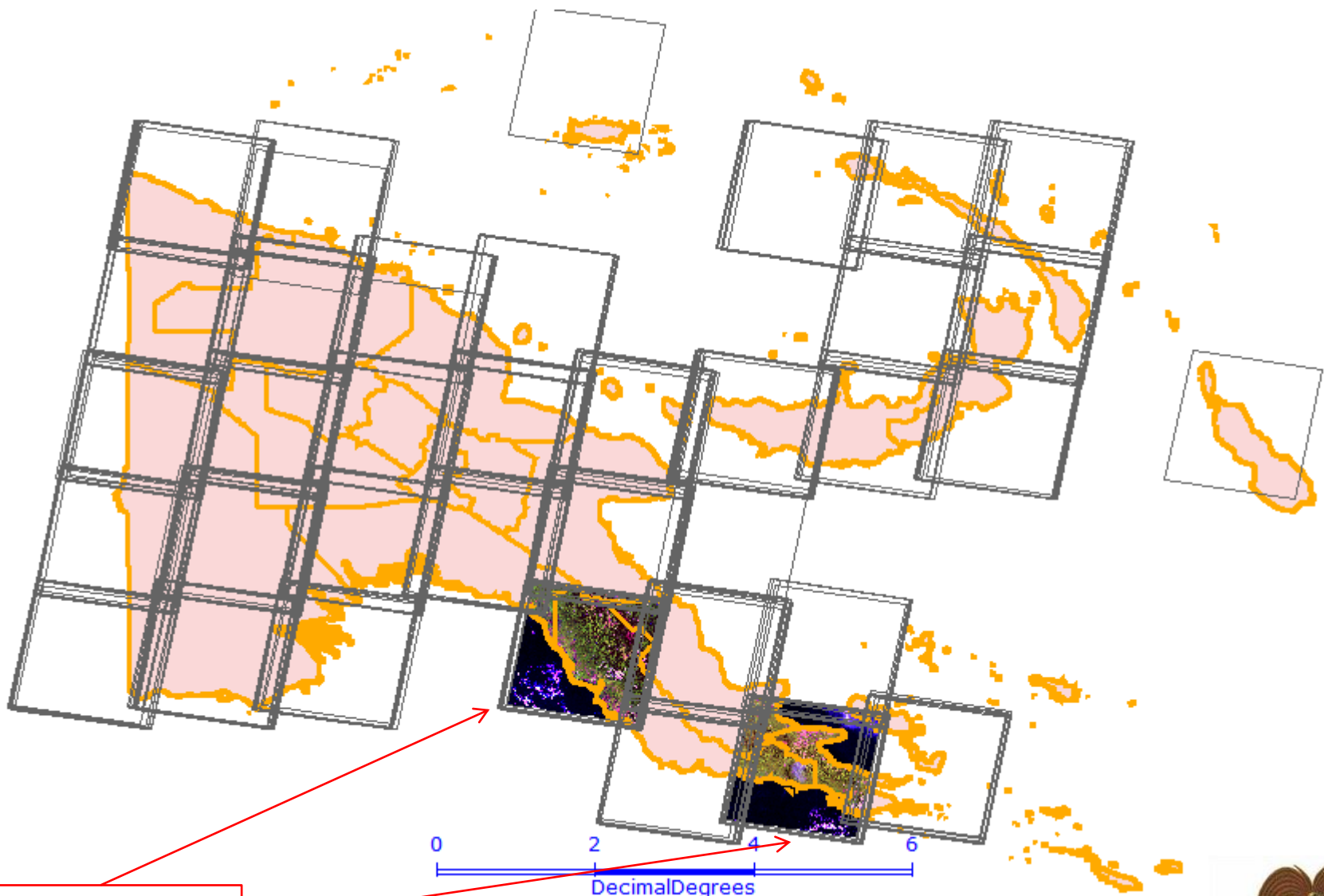
PRODES Methodology
 Outputs:
 Yearly deforestation map
 Statistics on deforestation area



PNG CONCEPTUAL MODEL:



TERRA-PAPUA WORKSHOP FAO Rome, 21Nov.–2Dec2011:



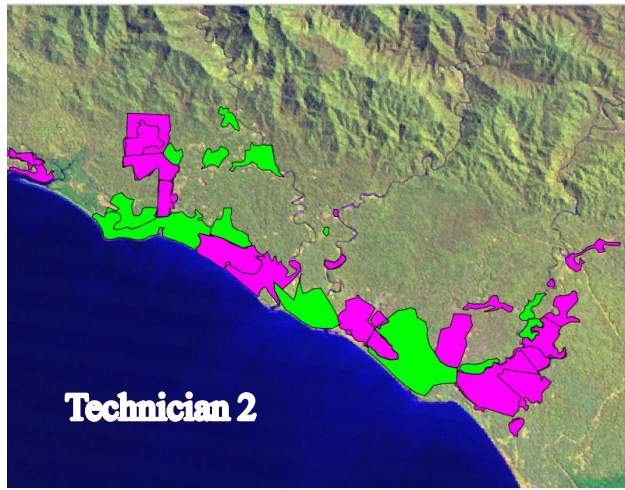
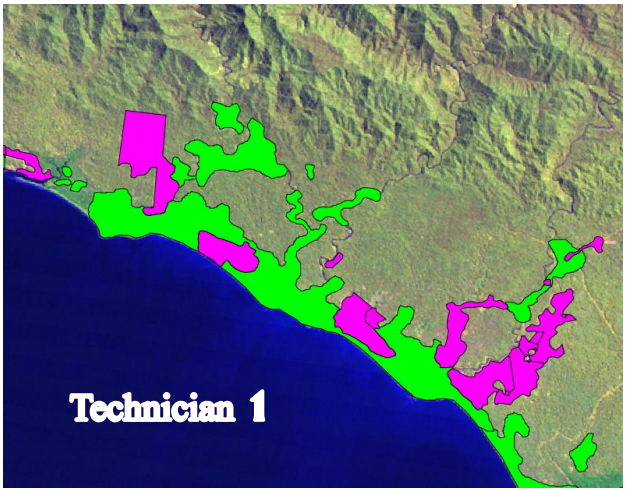
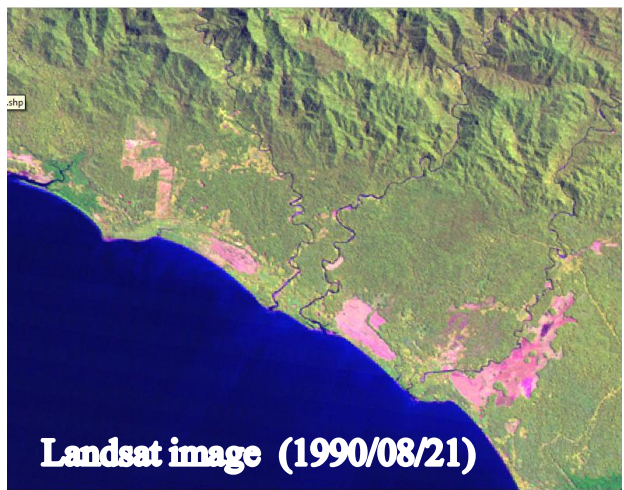
TEST AREAS



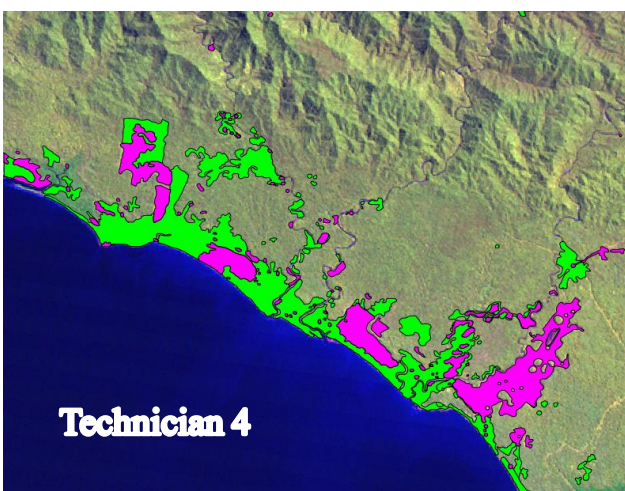
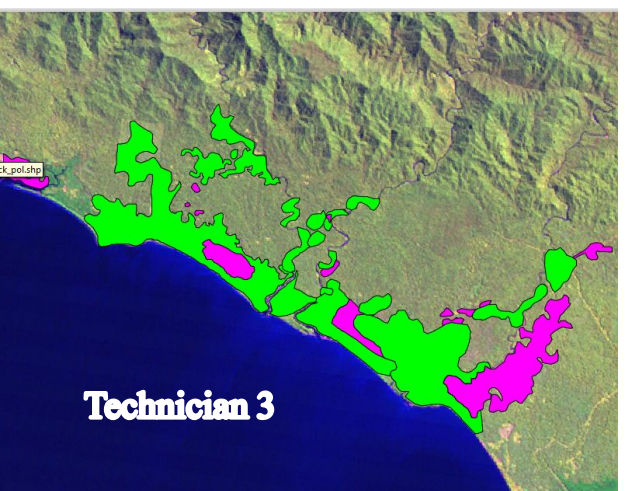
TERRA-PAPUA WORKSHOP

CALIBRATION OF IMAGE INTERPRETATION:

FAO Rome, 21Nov.–2Dec2011



- CLOUDS/SHADOWS
- DEGRADED FOREST
- NON FOREST



TERRA-PAPUA WORKSHOP

MULTI-USER EDITION:

FAO Rome, 21Nov.–2Dec2011

The screenshot shows the TerraAmazon software interface. The main window displays a map of Papua New Guinea with a grid overlay. The map is divided into several colored regions: a large pink area, a central green area, and two smaller blue/purple areas. A yellow outline follows the coastlines. The interface includes a menu bar (File, Show, View, Theme, Process, Attribute, Administration, Help), a toolbar with various icons, and a left-hand panel with layers and themes. The 'Layers' panel shows 'PNG_change' and 'AFFORESTATION'. The 'Themes' panel shows 'general' with 'CELL' selected. A 'Cells Manager' dialog box is open in the foreground, displaying a table of locked cells.

	User Name	Cell Oid	Date	Hour
1	Frederick	042038	30/11/2011	16:46:18
2	Frederick	042039	30/11/2011	16:46:18
3	Gewa	042040	30/11/2011	11:35:12
4	Gewa	042041	30/11/2011	11:35:12
5	Mericha	036028	30/11/2011	12:13:12
6	Mericha	037028	30/11/2011	12:13:12
7	Popei	037029	30/11/2011	16:4:8
8	Popei	037030	30/11/2011	16:4:8

Buttons: Help, Unlock Cell, Close

Scale: 0.01 AFFOREST1

Coordinate: 2735897

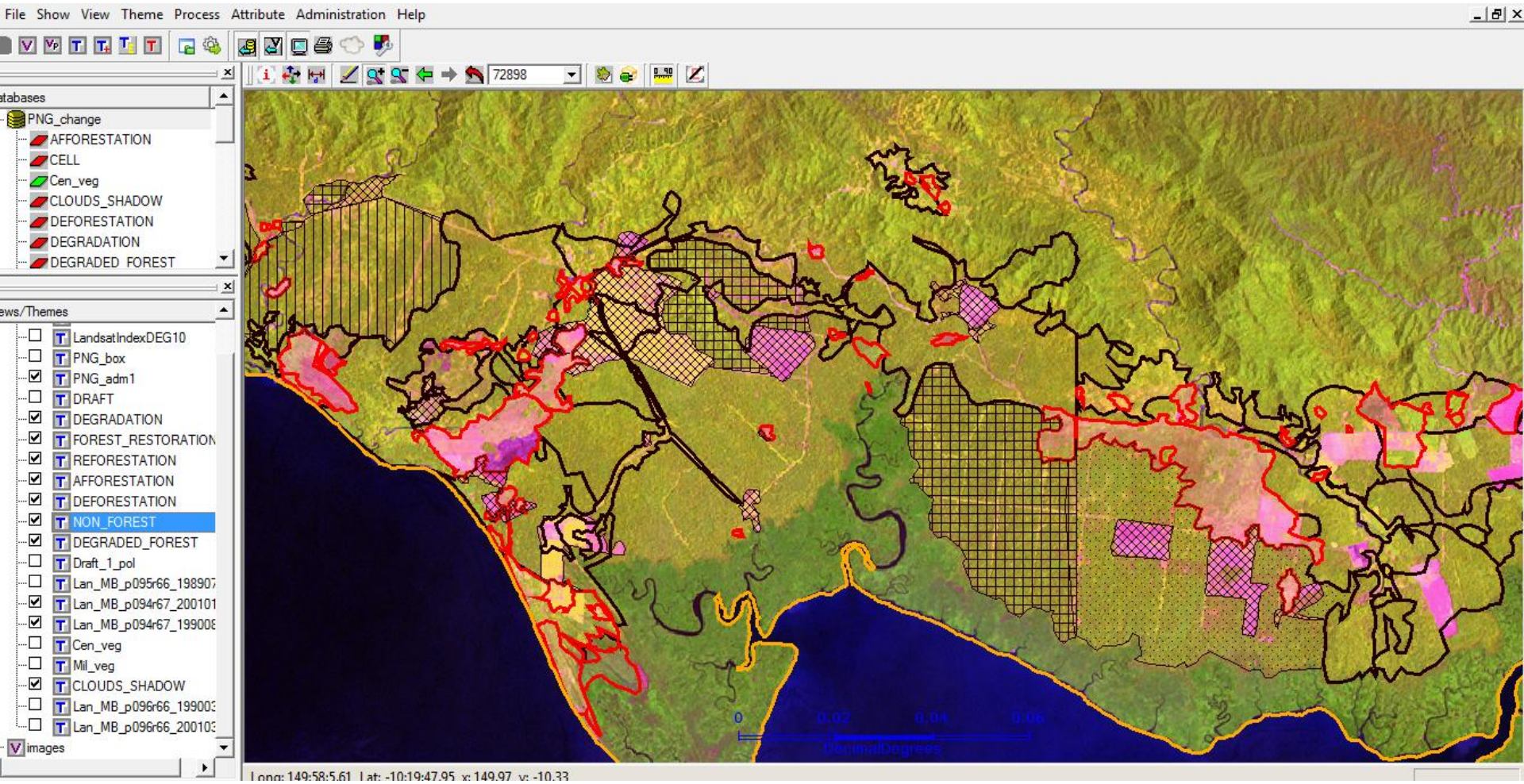
Scale bar: 1 2 3
Decimal Degrees



TERRA-PAPUA WORKSHOP

RESULTS:

FAO Rome, 21Nov.–2Dec2011



PAPUA NEW GUINEA NATIONAL FOREST MONITORING WEB-PORTAL:

- Web portal under development through the support of FAO, UN-REDD Programme , expected to be on-line June 2012
- Enable the country to follow all the actions related to the implementation of its national REDD+ policies and measures and to communicate its results to the international community (transparent and open data access)

In practice...

- Allow any user to interact with the system through a web-interface;
- Visualise data; download statistics; visualise information on logging concessions, protected areas, REDD+ activities,....
- Allow users to provide feedback on areas of deforestation, etc.



PAPUA NEW GUINEA NATIONAL FOREST MONITORING WEB-PORTAL:

The screenshot shows a web browser window titled "PNG National Forest Monitoring Portal - Windows Internet Explorer". The address bar contains "Secure Search" and "McAfee". The page title is "PNG National Forest Monitoring Portal". The main content area features a banner with the PNG National Forest Monitoring Portal logo and the text "PNG National Forest Monitoring Portal". Below the banner is a navigation bar with a year selector set to "2010" and language options for "Francais" and "English". The main map area displays a satellite view of Papua New Guinea with a network of yellow lines representing forest monitoring boundaries. A sidebar on the left contains a menu with the following sections:

- REDD+ Activity
 - Deforestation
 - Degradation
 - Conservation
 - Sustainable forest management
 - Enhancement
- Forestry information
 - REDD+ Safeguards
 - Forest Management Data
- Land use/Land use changes
 - Land use map
 - Forest land -> Other land use
 - Other land use -> Forest land
 - Reforestation
 - Afforestation
 - Forest land -> Forest land
 - Selective Logging
 - Fire

The map includes a scale of 1:7M and a "Port Moresby" label. The bottom right corner features the Yahoo! logo and copyright information: "©2011 Yahoo! Inc."



PAPUA NEW GUINEA NATIONAL FOREST MONITORING WEB-PORTAL:

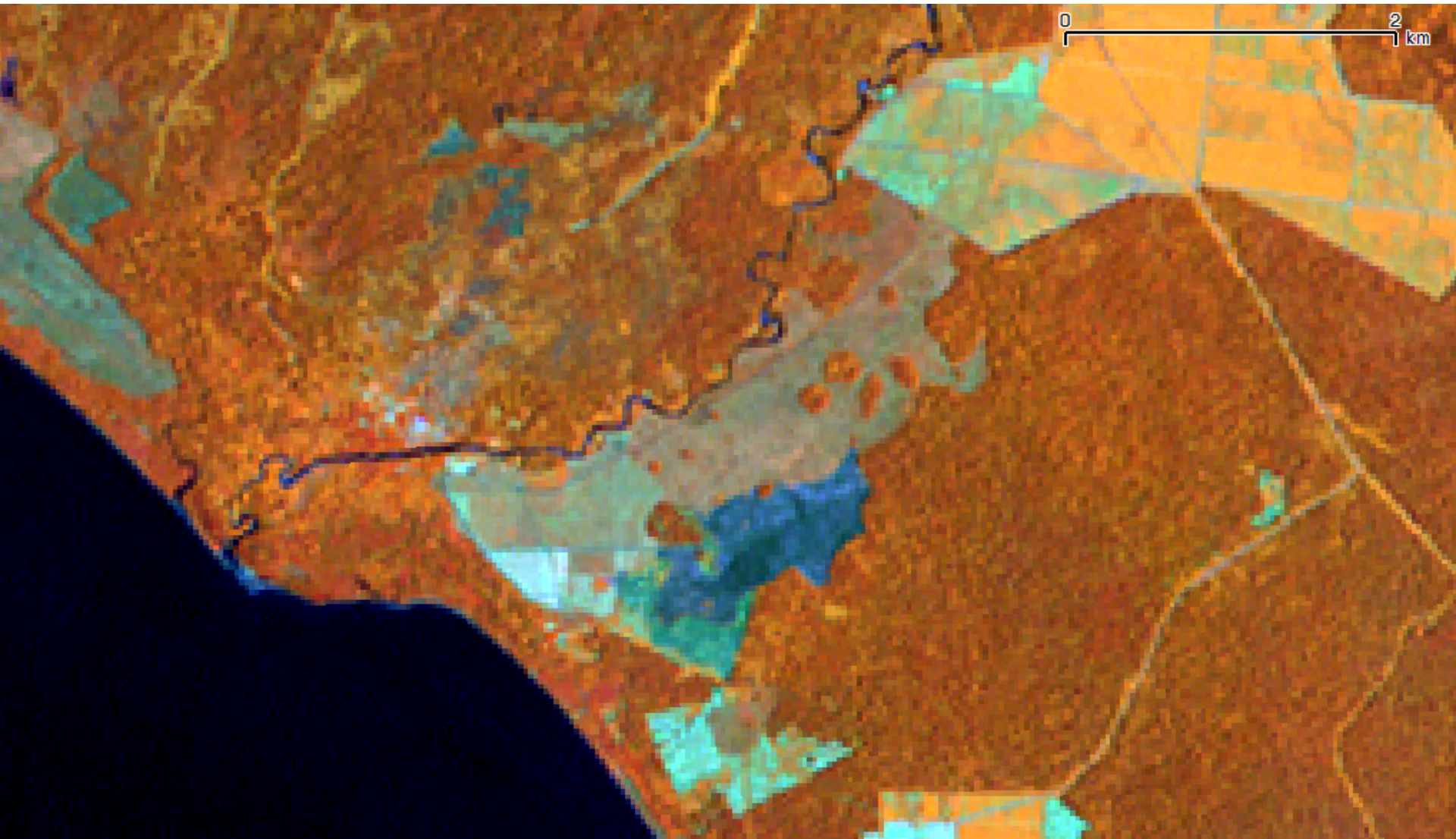
The screenshot displays the PNG National Forest Monitoring Portal. At the top left is the PNG national emblem. The main title "PNG National Forest Monitoring Portal" is centered at the top. Below the title is a navigation bar with icons for home, back, forward, search, and help, along with a year selector set to "2010". The main area features a satellite map of Papua New Guinea with colored overlays representing forest status: red for non-forest, yellow for disturbed forest, and green for forest. A red dashed box highlights a specific coastal region. On the left, a menu titled "REDD+ Activity" lists categories: Deforestation, Degradation, Conservation, Sustainable forest management, and Enhancement. Below this are "Land use/Land use changes" and "Forestry information". A "Selected layers" panel at the bottom left shows the "Forest mask" legend with color-coded boxes for Clouds/shadows (grey), Non-forest (red), and Disturbed forest (yellow).



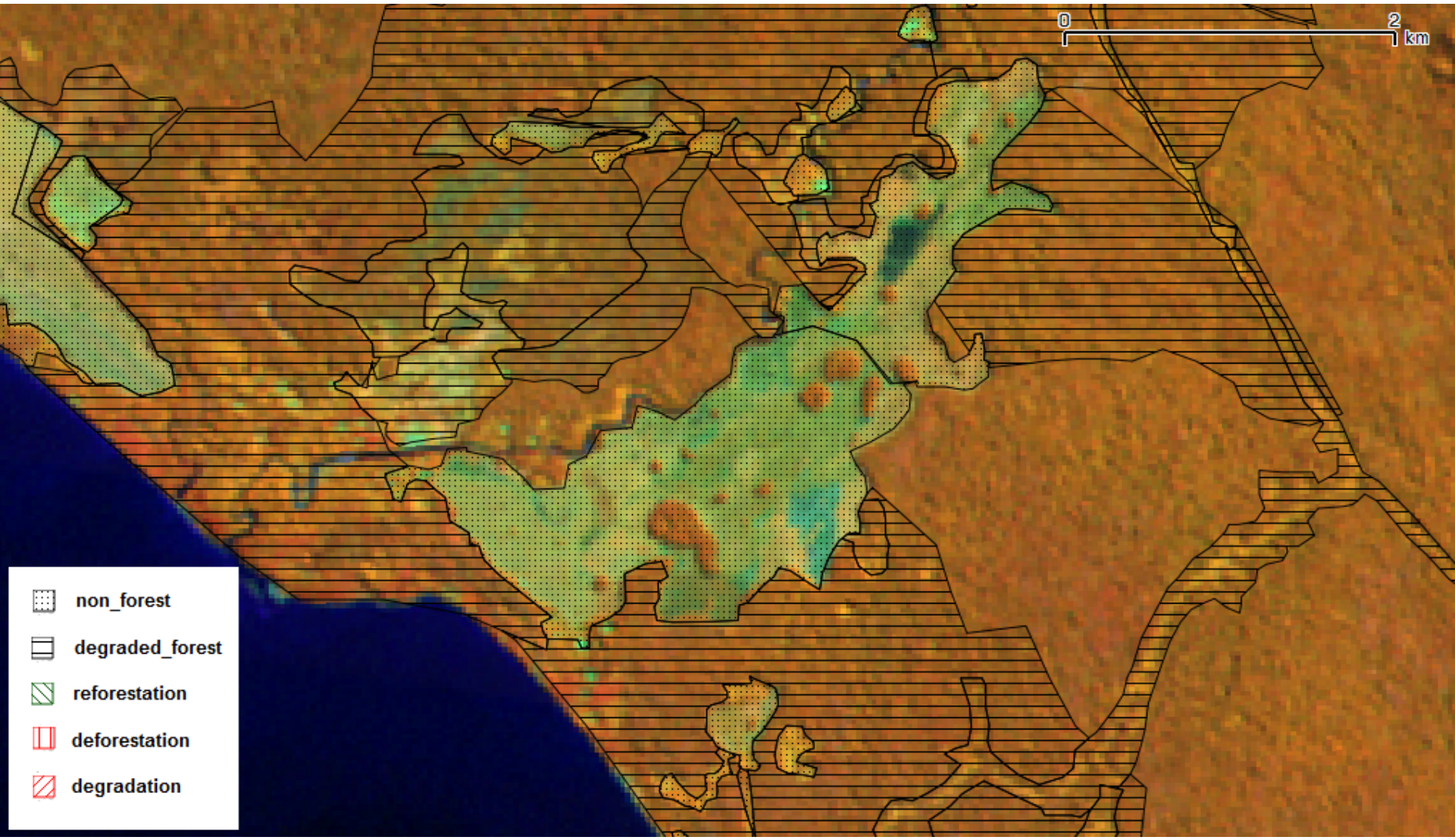
LANDSAT 1990



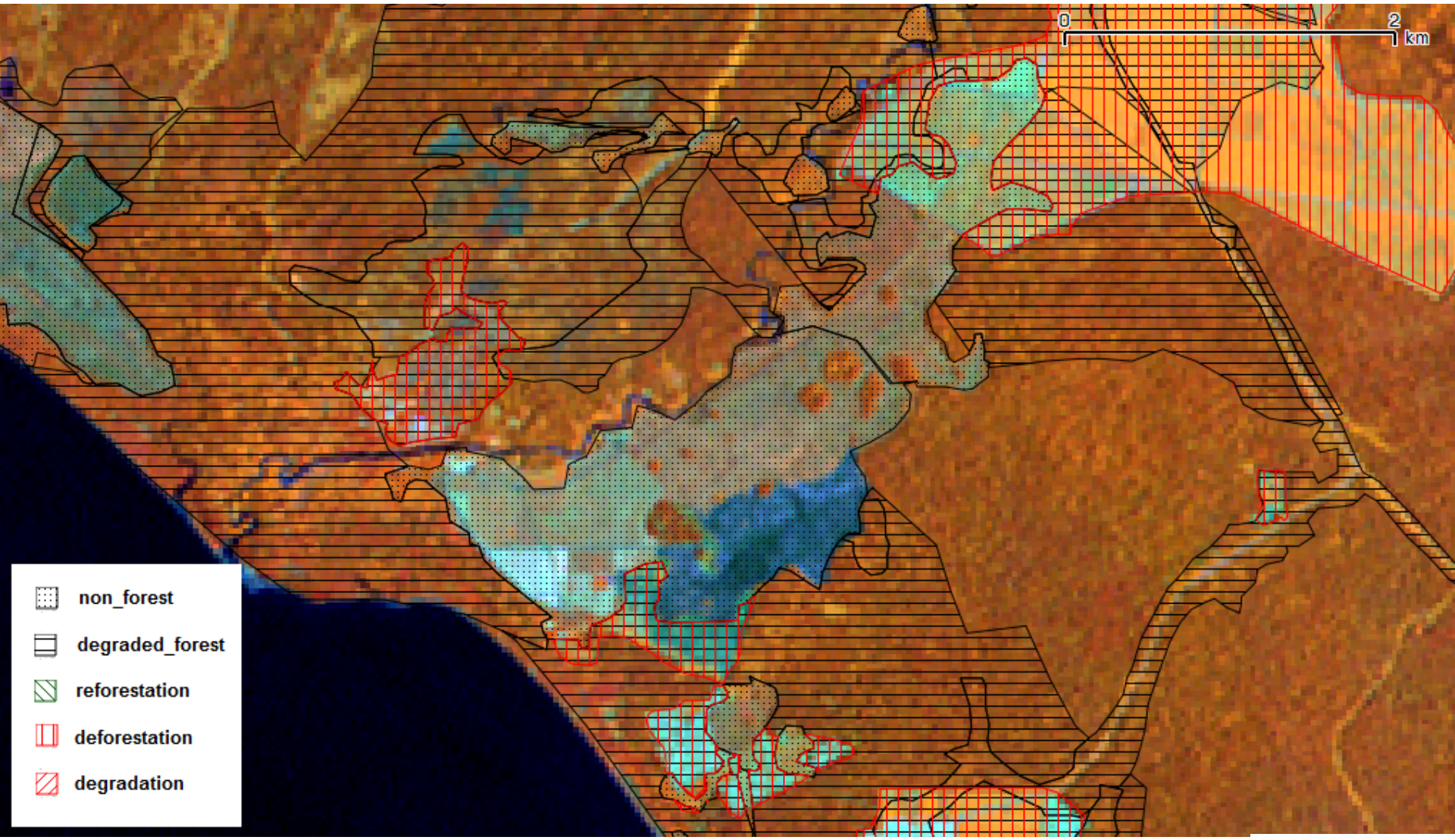
LANDSAT 2000



LAND USE ASSESSMENT 1990



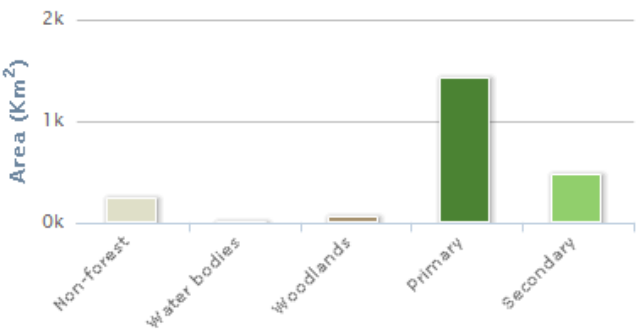
LAND USE ASSESSMENT 2000



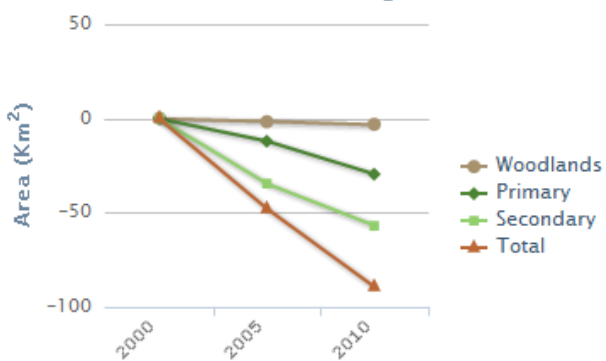
PAPUA NEW GUINEA NATIONAL FOREST MONITORING PORTAL:



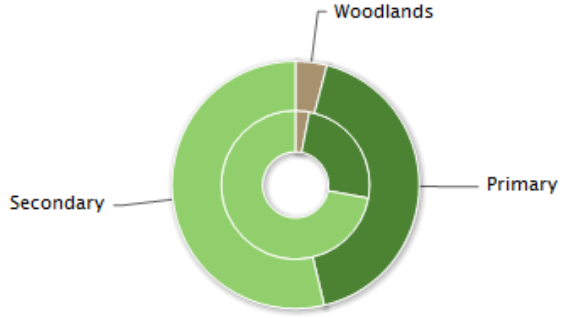
Forest Classification
2010



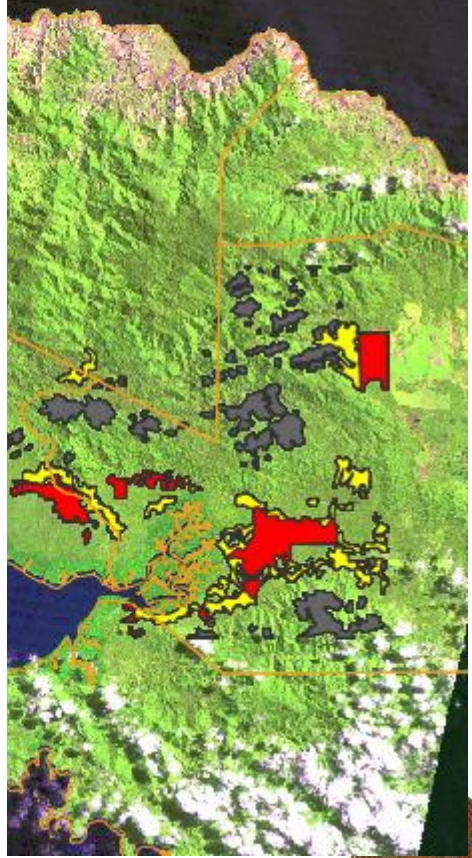
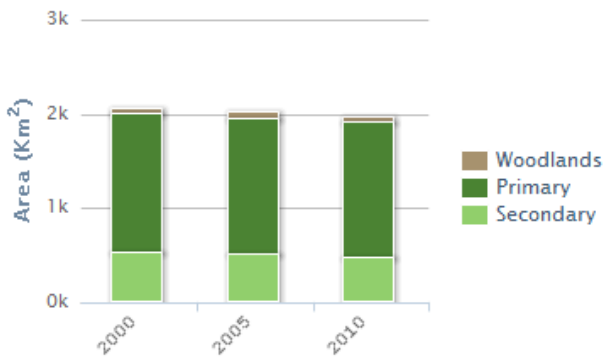
Forest Area Change



Forest Loss



Forest Total Area



Please place the mouse pointer over the charts to see values





**Thank
you**

