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Natural Resources Environment Assessment and Management (NRCE)

Evaluation of methodologies in the context of application of Remote Sensing Survey for the Global Forest Resource Assessment (FRA 2010) Programme

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Introduction

- Background and linkages
  - Global Forest Resource Assessment (FRA)
  - National representatives
  - International Partners
    - FAO - FOIM, NRCE; EU-JRC; SDSU; University of Jena et al...
- Methodologies
- Functionality and Tools – **Processing & Gateway**

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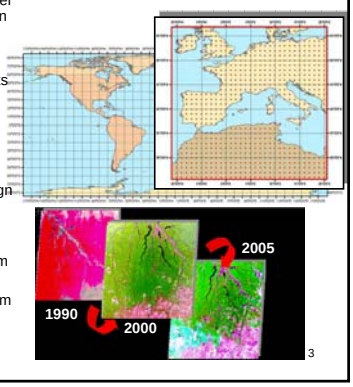
FRA 2010 – Remote Sensing Survey

- Specifically designed to cover the forest-related information needs for monitoring and progress towards the 2010 Biodiversity Targets, the Global Objectives on Forests of the UNFF and the Millennium Development Goals.
- Over 229 countries will be covered
- A systematic sampling design (grid of blocks at 1x1 deg intersect) will be used.
- The area covered at each sample site is 10 km x 10 km (with a 5-km buffer zone)
- Landsat images—dating from 1990, 2000, 2005 will be analyzed, initially
- Opportunity for broader utilization at country level



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Activities

- Expert consultations to identify:
  - Main activities and tasks
  - Input data sources
  - Legend
  - Minimum mapping unit
  - Processing environment
- Testing and assessment of various approaches and proposed methodology:
  - Sample blocks creation and screening
  - Evaluation of methodologies
  - Information gateway
- Evaluation of software and tools
  - MApping Device – Change Analysis Tool software

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Sample blocks screening

239 sample blocks

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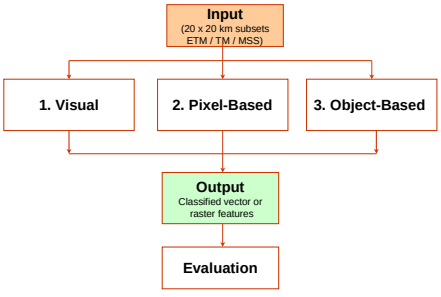
Activity two - Methodology

Evaluation of different approaches to FRA change detection



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Proposed process flow

Process Flow

- Pre-processing
- Segmentation
- Classification
- Information gateway
- Labelling and/or validation
- Post-processing
- Create / update database
- Reporting (Publishing)

FAO and partners
National experts

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FRA-RSS Information Gateway

The **FRA-Remote Sensing Survey-Information Gateway** is a WEB based integrated system to manage data and information produced by the FRA 2010 programme activities.

It aims to:

- disseminate and share remote sensing and any other geo-spatial data relevant to the programme;
- facilitate global, regional and national monitoring efforts; ATS
- implement a decentralized approach that ensures an increased involvement of countries in the assessment and mapping task

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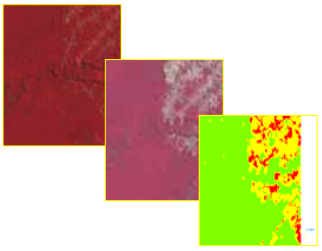
FRA-RSS Information Gateway

- **Functionalities**
  - **search/ display**
  - **download**
  - **upload**
  - **users management**
  - **process status**
- **Guidelines/tools**
- **Features:**
  - **User friendly interface**
  - **Controlled access to various level of information**
  - **Online decision support tools**

Provides controlled access to raw and processed satellite imagery, software download, interpretations, pre-processed segments, ancillary information, statistics, maps, and other information related to RSS assessments.



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Thank you!

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