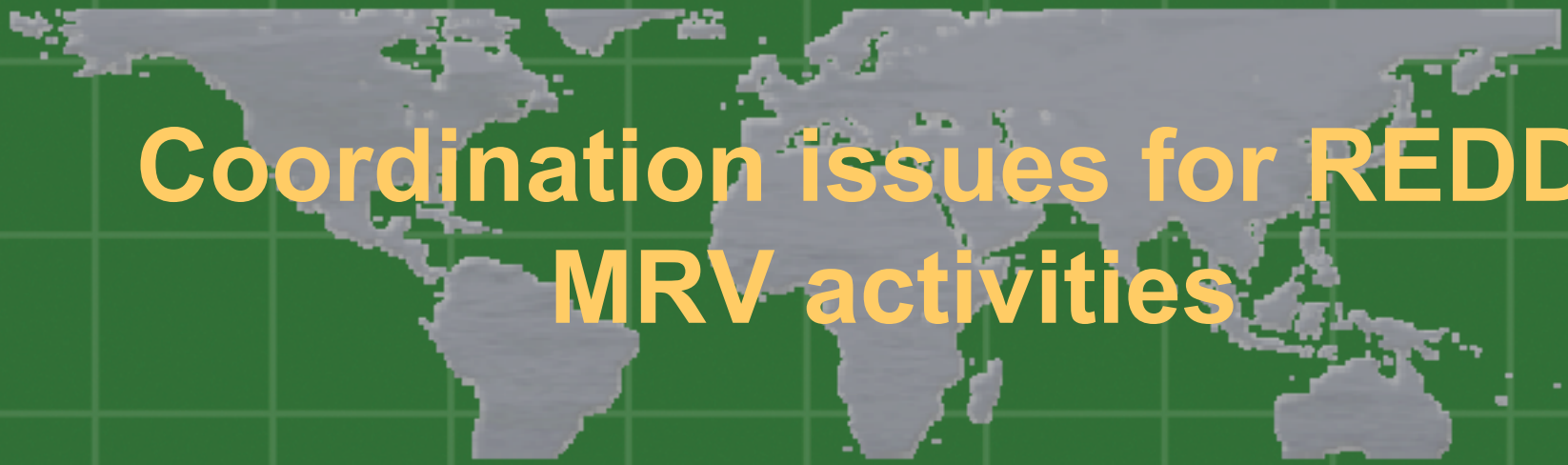

Coordination issues for REDD+ MRV activities

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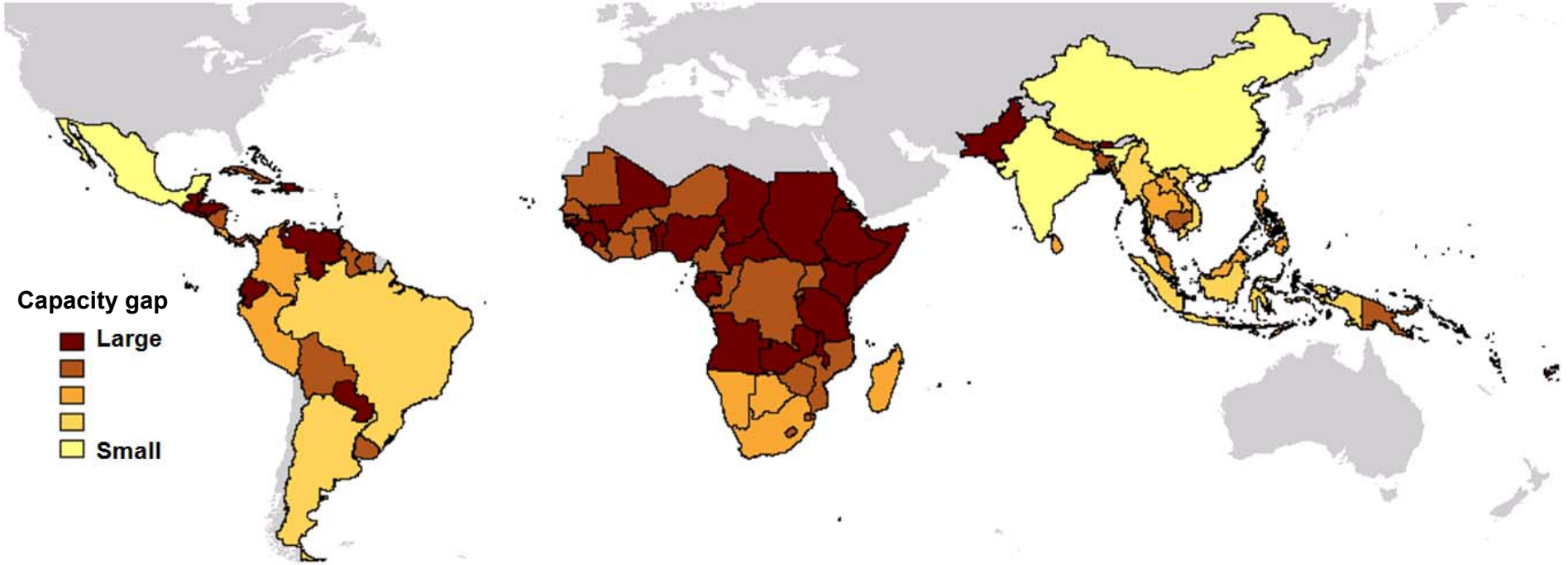
Presentation at UNFCCC SBSTA REDD MRV expert meeting

25-26. May 2010 in Bonn

Variability in capacities for REDD monitoring



Consideration of factors:

1. Requirements for monitoring forest carbon on national level (IPCC GPG)
2. Existing national capacities for national forest monitoring
3. Progress in national GHG inventory and engagement in REDD
4. REDD particular characteristics: importance of forest fires, soil carbon, deforestation rate etc.
5. Specific technical challenges (remote sensing): cloud cover, seasonality, topography, remote sensing data availability and access procedures

Source: http://princes.3cdn.net/8453c17981d0ae3cc8_q0m6vsqxd.pdf

The need for coordination

- Efficient capacity development (cost/benefit):
  - to build sustained capacities based on international requirements and national needs
- MRV linkages with policy and implementation
- Stakeholder involvement
- Knowledge sharing, build upon existing assets and benefit from proven approaches
- Avoid parallel (and potentially competing) activities

MRV coordination on different levels

- **International support:**
  - South-South cooperation
  - Donors and supporting agencies/organizations
  - Technical community providing guidance
- **National strategy and MRV development:**
  - MRV roadmap and policy priorities
  - Institutional setup and multi-sector partnerships
  - Maximize country benefits from multi-donor support
- **Sub-national implementation:**
  - Stakeholder involvement in MRV
  - Linking national and local monitoring and verification

International support and guidance

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Potentials for regional cooperation

Regional capacity	Opportunity for reducing costs & efforts
Centralized access and pre-processing of key remote sensing datasets for national analysis and estimation of forest area change	Reduce cost for data access and pre-processing, while interpretation may still be done within country
Establish regional remote sensing data interpretation facility	Reduce costs for technical/office resources and human resources
Regional processing and analysis of coarse resolution satellite data for near real-time detection of forest fires and deforestation	Increase availability of and reduce costs on useful data and observations
Focal point for technical capacity-building for forest monitoring in the region	Reduce costs for continuous training, technical support, and foster South-South cooperation
Support for verification and independent accuracy assessments	Standard procedures for transparent and independent verification of results
Standardization of methodologies for LULUCF estimation and reporting	Inter-regional exchange of results and experiences, and integration with carbon crediting / reducing transaction costs

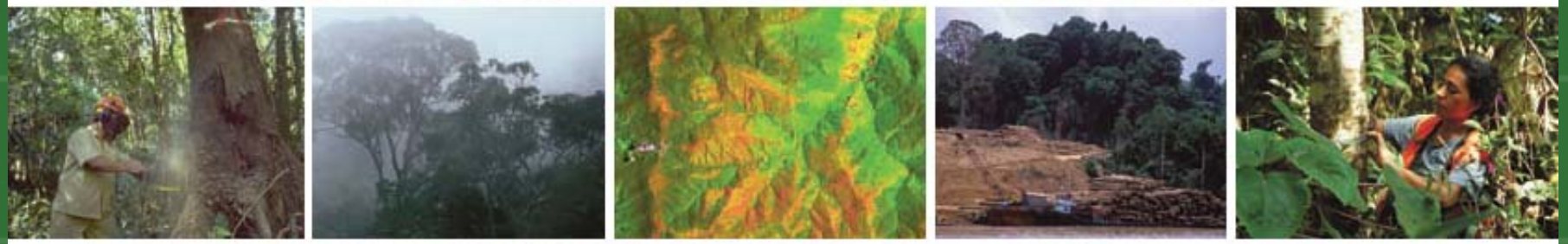
UNFCCC/SBSTA technical paper on costs of monitoring for REDD

http://unfccc.int/resource/docs/2009/tp/01.pdf

Guidance to use IPCC GPG guidance

- Limited capacity to use IPCC GPG guidance in many developing countries
- Further guidance and support needed:
  - advice to the inventory compilers
  - use of remote sensing and ground-based methods and their combination in forest inventories
  - updating emission factors
- Flexibility to focus forest carbon monitoring on national circumstances
  - Key category analysis and REDD opportunities
- Annex I country experiences

GOFC-GOLD REDD+ Sourcebook



A sourcebook of methods and procedures for monitoring and reporting anthropogenic greenhouse gas emissions and removals caused by deforestation, gains and losses of carbon stocks in forests remaining forests, and forestation

http://www.gofc-gold.uni-jena.de/redd

GOFC-GOLD

What is GOFC-GOLD?

- A technical panel of the UN Global Terrestrial Observing System (GTOS/FAO)
- A coordinated international effort:
  - to ensure a continuous program of space-based and field forest and land observations for global monitoring of terrestrial resources
- A network of participants implementing coordinated research, demonstration and operational projects
- A vision to share data, information and knowledge
- GOFC-GOLD operates through:
  - Executive committee, science and technical board
  - Implementation teams and 3 project office (CA, US, Germany?)
  - Dedicated working groups (REDD, GEO task, biomass)
  - 6 Regional networks (Central/West/East Africa, SE-Asia and Latin america)

Sourcebook objectives

1. Facilitate a process of cooperation and communication of remote sensing and carbon monitoring technical community
2. To provide transparent methods that are designed to produce estimates of changes in forest area and carbon stocks in a format that is user-friendly
3. To complement the IPCC GPG-LULUCF (2003) and IPCC Guidelines-AFOLU (2006) by providing additional explanations and enhanced methods
4. To support REDD early actions at national level

A community effort

Core author team

- Frédéric Achard, Sandra Brown, Ruth De Fries, Giacomo Grassi, Martin Herold, Danilo Mollicone, Devendra Pandey, Carlos Souza Jr.,

Contributors:

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Registered users : 830 (voluntary)

Coarse outline (200 pages)

1 **INTRODUCTION**
- 1.1 PURPOSE AND SCOPE OF THE SOURCEBOOK
- 1.2 ISSUES AND CHALLENGES

2 **METHODOLOGICAL SECTION**
- 2.1 GUIDANCE ON MONITORING OF CHANGES IN FOREST AREA
- 2.2 ESTIMATION OF CARBON STOCKS IN VEGETATION
- 2.3 ESTIMATION OF SOIL CARBON STOCKS
- 2.4 METHODS FOR ESTIMATING CO2 EMISSIONS FROM DEFORESTATION & DEGRADATION
- 2.5 METHODS FOR ESTIMATING GHG'S EMISSIONS FROM BIOMASS BURNING
- 2.6 UNCERTAINTIES
- 2.7 STATUS OF EVOLVING TECHNOLOGIES

3 PRACTICAL EXAMPLES FOR DATA COLLECTION
- 3.1 METHODS USED BY ANNEX-1 COUNTRIES FOR NATIONAL LULUCF INVENTORIES
- 3.2 OVERVIEW OF EXISTING FOREST AREA CHANGES MONITORING SYSTEMS
- 3.3 NATIONAL FOREST INVENTORY: INDIA'S CASE STUDY
- 3.4 DATA COLLECTION AT LOCAL / NATIONAL LEVEL
- 3.5 RECOMMENDATIONS FOR COUNTRY CAPACITY BUILDING

4 GUIDANCE ON REPORTING
- 4.1 SCOPE OF CHAPTER
- 4.2 OVERVIEW OF REPORTING PRINCIPLES AND PROCEDURES
- 4.3 MAJOR CHALLENGES FOR DEVELOPING COUNTRIES
- 4.4 THE CONSERVATIVENESS APPROACH

GOFC-GOLD

WORKSHOP

4th GOFC-GOLD REDD Sourcebook development workshop:

"Experiences, requirements, and actions to develop the next version of the GOFC-GOLD REDD Sourcebook"

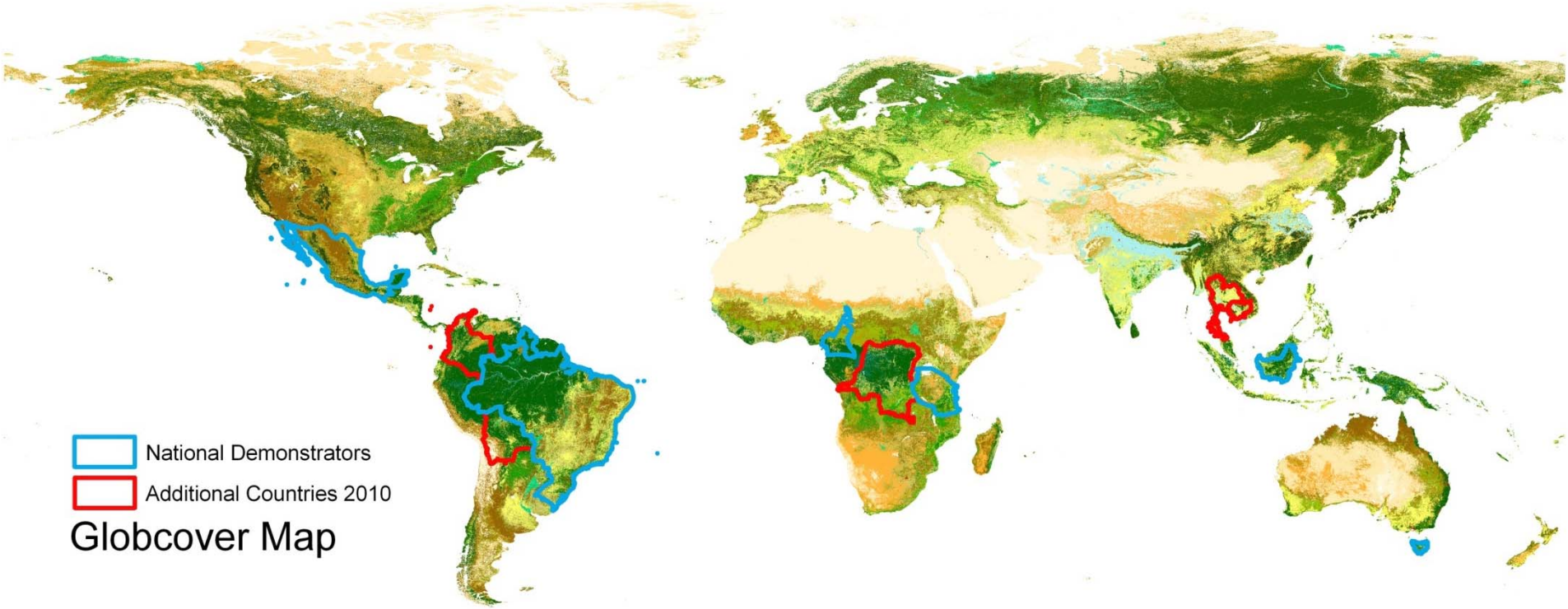
5-9. July 2010

Canadian Forest Service, Victoria, Canada

http://www.grs.wur.nl/UK/Workshops/GOFC_GOLD/

8.30 am – 1.00 pm: PRESENTATIONS **Synthesize country experiences, international initiatives and general developments for using and updating the Sourcebook** *[Herold / Mollicone / Brady]*
2.00 pm – 6.30 pm: BREAKOUT GROUPS + REPORTS **Synthesize country experiences, international initiatives and general developments for using and updating the Sourcebook:** *[Herold / Mollicone / Brady]*
Joint reception (tbd)
8.30 – 10.30 am SESSION 1: Role of REDD monitoring to assess drivers and safeguards *[De Fries /Mollicone]*
11.00 – 1.00 pm SESSION 2: *Monitoring options for forest regrowth and changes in forest remaining as forests, including SFM, conservation and increase in forest carbon stocks* *[Pandey / Achard]*
2.00 pm – 4.00 pm SESSION 3: *Data synthesis and integrating remote sensing, in-situ data and models* *[Kurz / Wulder]*
4.30 pm – 6.30 pm SESSION 4: Evolving technologies and work with GEO FCT and Google *[Brady / Seifert / Woodcock]*
8.30 – 10.15 am SESSION 5: Accuracy assessment of forest area and change – joint activities with CEOS Cal/Val *[Woodcock/Herold]*
10.45 – 12.30 pm SESSION 6: National data management, information flows and infrastructures *[Van Laake]*

GEO forest carbon tracking task demonstrator countries & sites



National strategy and MRV development

Martin Herold
GOFC-GOLD
Wageningen University

Issues to develop a REDD MRV system

- Requirements for national MRV system:
  - International: principles and procedures specified by the IPCC Good Practice Guidelines and UNFCCC guidance
  - National: needs and priorities of the national REDD policy and implementation strategy;
- Bridging the capacity gap:
  - Assessment: of existing national forest monitoring technical capabilities versus the requirements for the MRV system;
  - Develop and implement a roadmap: to build sustained in-country capacities for MRV

Drivers and monitoring priorities (Fiji)

Processes that effect forest carbon stocks	Importance (carbon impact)	Current data	Suggested activity to fill data gap in the near term
Forest conversion for expansion of agriculture	Very high	Some data may be available with NLTB, Forestry & Ministry of Primary Industries, only tracked if commercially logged	1. Remote sensing based area / land use change assessment 2. Gather and evaluate existing national data 3. Conversion of existing inventory data into carbon
Conversion of forest for settlement	high	Some data with Lands Dept & no data for squatters	1. Remote sensing based area / land use change assessment 2. Gather and evaluate existing national data 3. Conversion of existing inventory data into carbon
Plantation clear-fell harvesting	high	Data available from forest companies, no government on tracking on when or where	1. Gather data on national level and evaluate data with remote sensing assessment 2. Conversion of existing harvest estimates into carbon
Selective logging of native forests remaining forest	medium	SFM: data at GTZ, FD Local use (no data) Commercial use - data from the Forestry Department (spatial data and harvest estimates)	1. Gather data on national level and evaluate data with remote sensing assessment 2. Conversion of existing harvest estimates into carbon 3. Study long-term effects
Accidental burning affecting forests	medium	Fiji Pine has fire data for their plantation (pine).	1. Gather data on national level and evaluate data with remote sensing assessment 2. Targeted ground surveys
Forest clear-fell for mining	medium	Mining companies should have data or mineral resources division	1. Gather data on national level and evaluate data with remote sensing assessment

Implementation remarks

1. MRV system establishment:
   - Requires a coordinated approach
   - Address national priorities (i.e. drivers and processes) and requirements of IPCC guidelines
2. Any MRV capacity development progress needs to improve national capacities:
   - Requires a national “roadmap” to build sustained, within country capacities
   - Coordination among multiple donors
   - Addresses near-term priorities & long-term targets
   - Progress and performance judged by the level improved capacities

Guyana REDD MRV development roadmap

http://www.forestry.gov.gy/Downloads/Terms_of_Reference_for_Guyanas_MRVS_Draft.pdf

	National strategy (2010/11) ➔	Country readiness (2011/12) ➔	Implementation (post 2012/13)➔
Objectives	**Gather and integrate information & fill data gaps for national REDD opportunities, scoping and policy development**	**Develop capacities, conduct historical monitoring, and implement a (minimum) IPCC Tier 2 national forest carbon monitoring, establish the reference level and report on interim performance**	**Establish consistent and continuous MRV supporting national REDD+ actions and international IPCC GPG-based reporting and verification**
Key results and national capacities developed	1. Comprehensive MRV roadmap developed and national MRV steering body operational 2. Improved national capacities on LCDS, REDD, IPCC-LULUCF, and carbon dynamics 3. Framework and capacities to demonstrate REDD implementation and interim performance 4. All data available and accessible (including acquisition of new forest carbon data) on drivers and processes needed for developing a national REDD policy and interim implementation plan 5. Established communication and participation mechanism to involve relevant stakeholders nationally and internationally 6. Approaches for setting reference levels, linking MRV and policy, and MRV co-benefits and synergies are explored and defined	1. Capacities in place for consistent and continuous acquisition and analysis of key data for Tier 2 nationally and Tier 3 for demonstration/activity sites including international reporting using IPCC LULUCF; uncertainty assessment MRV improvement plan developed 2. Reference level established based on historical data, and future developments using internationally accepted methods 3. All data available and accessible for an updated national REDD implementation plan 4. Regular reporting on REDD demonstrations and interim performance 5. Continued engagement with key national stakeholders for REDD implementation and assuring long-term sustainability of MRV capacities (i.e. universities) 6. Monitoring system explored to cover key variables for other ecosystem services	1. IPCC key category analysis and assessment for Tier 3 approaches completed and implemented (if desired) 2. Independent international review of full MRV system completed 3. Capacity in place and implementation to deliver verification and compliance assessment for REDD results-based compensation 4. National data infrastructure of forest greenhouse gas inventory and assessment in place for regular reporting 5. Implementation plan to use new and proven technologies to reduce uncertainties and increase efficiency of MRV system 6. Framework developed that links REDD into LCDS monitoring, reporting and verification system

MRV coordination on different levels

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Web resources

- **GOFC-GOLD:**
  - http://www.fao.org/gtos/gofc-gold/
- **GOFC-GOLD land cover project office:**
  - http://www.gofc-gold.uni-jena.de/
- **GOFC-GOLD REDD sourcebook:**
  - http://www.gofc-gold.uni-jena.de/redd
- **UNFCCC/SBSTA technical paper on costs of monitoring for REDD**
  - http://unfccc.int/resource/docs/2009/tp/01.pdf

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