NATIONAL REPORTING TABLES FOR FRA 2010

Lars Gunnar Marklund

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Reporting tables

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T1 Extent of Forest and Other wooded land

Rationale:

- Core table for FRA 2010
- Important for assessing state and trends of forest resources
- Widely used in various international reporting processes and conventions

Reporting

- No changes in relation to FRA 2005
- Pre-filled country reports 1990, 2000 & 2005
- Data sources
  - National forest inventory data
  - Forest maps
  - Vegetations and land use maps

T1 Extent of Forest and Other wooded land

	Area (1000 hectares)			
FRA categories	**1990**	**2000**	**2005**	**2010**
Forest				
Other wooded land				
Other land				
...of which with tree cover				
Inland water bodies				
TOTAL				

T2 Forest ownership and management rights

Rationale:

- Control over and rights to use the forest resources
- Policy, institutional and management issues

Reporting

- Changes in relation to FRA 2005
  - Ownership now refers to the forest resource (the trees) and **not** the land
  - Private ownership has been futher sub-divided into several sub-categories
  - Information on management rights of public forests has been added
- Two parts
  - ownership
  - management rights

T2a Forest ownership

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership			
Private ownership			
...of which owned by individuals			
...of which owned by private business entities and institutions			
...of which owned by local communities			
...of which owned by indigenous / tribal communities			
Other types of ownership			
TOTAL			

T2b Holder of management rights of public forests

FRA Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration			
Individuals			
Private corporations and institutions			
Communities			
Other			
TOTAL			

T3 Forest designation and management

Rationale:

- Information on how the forests are intended to be managed
- Relates to reporting to other organizations and arrangements (CBD, UNFF, MCPFE, ITTO, etc.)
- Essential for planning and monitoring of impacts of policy measures

Reporting

- Changes in relation to FRA 2005
  - Only covers forest area
  - ”Total area with function” has been removed
  - A table on ”special categories of designation and management” has been added (T3b)
- T3a – Primary Designated Function is prefilled for 1990, 2000 and 2005

T3a Primary designated function

FRA categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production				
Protection of soil and water				
Conservation of biodiversity				
Social services				
Multiple use				
Other (specify)				
No / Unknown				
TOTAL				

T3b Designation and management

FRA categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate				
Forest area within protected areas				
Forest area under sustainable forest management				
Forest area with management plan				

T4 Forest characteristics

Rationale:

- Degree of human impact
- Monitor forest ecosystems

Reporting

- Changes in relation to FRA 2005
  - Planted forest instead of Plantations
  - Modified natural and Semi-natural merged into Other naturally regenerated forest
  - A table with specific categories of forest types added (T4b)
- T4a – Characteristics – area of primary forest is prefilled for 1990, 2000 and 2005

T4a Characteristics

FRA categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest				
Other naturally regenerated forest				
...of which of introduced species				
Planted forest				
...of which of introduced species				
TOTAL				

T4b Special categories

FRA categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)				
Mangroves (Forest and OWL)				
Bamboo (Forest and OWL)				

T5 Forest establishment and reforestation

Rationale:

- Monitor progress towards SFM
- Global objectives on forests (UNFF)

T5 Forest establishment and reforestation

FRA categories	Annual forest establishment (ha/year)			...of which of introduced species (ha/year)		
	1990	2000	2005	1990	2000	2005
Afforestation						
Reforestation						
...of which on areas previously planted						
Natural expansion of forest						

T6 Growing stock
T7 Biomass stock
T8 Carbon stock

- Strongly interrelated
- Consistence between tables
- Consistence between reporting to FRA and to UNFCCC and the Kyoto Protocol

T6 Growing stock

Rationale:

- Productive capacity of the forests
- Planning and monitoring sustainable use
- Basis for biomass and carbon estimates

Reporting

- Commercial Growing stock replaced with Growing stock of commercial species
- Three parts
  - Total growing stock and growing stock of commercial species
  - Composition of growing stock
  - Specification of thresholds
- Trends – need for better information on growing stock per hectare

T6a Growing stock

FRA categories	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock								
...of which coniferous								
...of which broadleaved								
Growing stock of commercial species								

T6b Growing stock of the 10 most common species

FRA category/Species name			Growing stock in forest (million m^3 over bark)		
Rank	Scientific name	Common name	1990	2000	2005
1st					
2nd					
3rd					
...					
10th					
Remaning					
TOTAL					

T6c Specification of threshold values

Item	Value	Complementary information
Minimum diameter (cm) at breast height of trees included in growing stock (X)		
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)		
Minimum diameter (cm) of branches included in growing stock (W)		
Volume refers to ”above ground” (AG) or ”above stump” (AS)		

T7 Biomass stock

Rationale:

- Basis for estimating carbon and emissions
- Wood energy

Reporting

- Same categories and definitions as IPCC
- Default conversion factors from 2006 IPCC Guidelines – improved since FRA 2005
- General methodological aspects
  - Biomass conversion and expansion factors
  - No default values for dead wood

T7 Biomass stock

FRA categories	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass								
Below-ground biomass								
Dead wood								
TOTAL								

T8 Carbon stock

Rationale:

- Monitor greenhouse gase emissions
- REDD

Reporting

- National data, when available
- Apply default carbon fraction from 2006 IPCC Guidelines (0.47)

T8 Carbon stock

FRA Categories	Carbon (Million metric tonnes)				
	Forest				OWL
	1990	2000	2005	2010	...
Carbon in above-ground biomass					
Carbon in below-ground biomass					
Sub-total: Living biomass					
Carbon in dead wood					
Carbon in litter					
Sub-total: Dead wood and litter					
Soil carbon					
TOTAL					

T9 (Forest) fires

Rationale:

- Planning & monitoring of fire management measures
- Climate change & carbon emission calculations

Reporting

- New table
- Two parts
  - area and number of fires
  - proportion wildfire / planned fire
- Thematic study ”Fire management – global assessment 2006”
- Five-year average for reporting

T9a Area and number of fires

FRA category	Annual average for 5-year period					
	1990		2000		2005	
	1000 ha	# of fires	1000 ha	# of fires	1000 ha	# of fires
Total area affected by fire						
... of which on forest						
... of which on other wooded land						
... of which on other land						

T9b Proportion of planned fires and wildfires in forest

FRA category	Proportion of forest area affected by fire (%)		
	1990	2000	2005
Wildfire			
Planned fire			

T10 Other disturbances affecting forest health and vitality

Rationale:

- Forest health and vitality
- Control and mitigate impact

Reporting

- Three parts
  - Disturbances
  - Mayor outbreaks of insects and diseases
  - Woody invasive species

T10a Disturbances

FRA categories	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects			
Disturbance by diseases			
Disturbance by other biotic agents			
Disturbance caused by abiotic factors			
Total area affected by disturbances			

T10b Major outbreaks of insects and diseases affecting forest health and vitality

Description / name	Tree species or genera affected (scientific name)	Year(s) of latest outbreak	Area affected (1000 ha)	If cyclic, approx. cycle (years)
Disturbance 1				
Disturbance 2				
Disturbance 3				
...				
Disturbance 10				

T10c Area of forest affected by woody invasive species

Scientific name of woody invasive species	Forest area affected 2005 (1000 hectares)
Sp.1	
Sp. 2	
Sp. 3	
Sp. 4	
Sp. 5	
Total forest area affected by woody invasive species	

T11 Wood removals and value of removals

Rationale:

- Contribution of forest sector to the national economy

Reporting

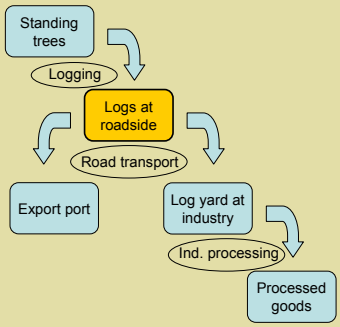
- Removals ≠ felling
- Joint Forest Sector Questionnaire (**JFSQ**)
  (EUROSTAT / FAO / ITTO / UNECE)
- Volume over bark (o.b.)
- Five-year average

T11 Wood removals

FRA category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m^3 o.b.)						
... of which from forest						
Unit value (local currency / m^3 o.b.)						
Total value (1000 local currency)						

Name of local currency: 1990, 2000 & 2005

Estimation of value



T12 Non-wood forest products removals and value of removals

Rationale:

- Show the importance of NWFPs, both for economy and livelihood of rural people

Reporting

- FRA 2005 table redesigned (Quantity and value of 10 most important NWFPs)
- Data availability an issue
- Focus on commercial products
- Only removals from forest

T12 Non-wood forest products removals and value of removals

Rank	Name of product / Key species	Unit	NWFP removals 2005		NWFP category
			Quantity	Value (1000 loc.cur.)	
1st					
2nd					
...					
10th					
All other plant products					
All other animal products					
TOTAL					

T13 Employment

Rationale:

- Socio-economic importance
- Government policies
- Industry development
- etc.

Reporting

- Changes in relation to FRA 2005
  - Self-employment included in primary production of goods
  - ”Management of protected areas” has replaced ”Provision of services”
- Compatible with national labour statistics

T13 Employment

FRA categories	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods			
...of which paid employment			
... of which self-employment			
Employment in management of protected areas			

T14 Policy and legal framework

Rationale:

- Fundamental basis for SFM
- Integration of forest sector into society

Reporting

- New table in FRA 2010
- Yes/No questions with some complementary information
- nfp-updates
- FAOLEX (http://faolex.fao.org)

T14a Policies and Laws (2008)

Forest policy statement with national scope	Yes/No
If Yes above, provide: Year of endorsement and Reference to document	
National forest programme (nfp)	Yes/No
If Yes above, provide: Name of nfp, Current status, and Reference to document	
Law (act or code) on forest with national scope	Yes/No
If Yes above, provide: Year of enactment, Year of latest amendment and Reference to document	
Sub-national forest policy statement	Yes/No
If Yes above, indicate: number of regions/states/provinces with forest policy statements	
Sub-national laws (acts or codes) on forest	Yes/No
If Yes above, indicate: number of regions/states/provinces with laws on forests	

T15 Institutional framework

Rationale:

- Institutions responsible for
  - Policy formulation and implementation
  - Law enforcement
- Technical capacities of institutions

T15a Institutions

FRA categories	2008
Minister responsible for forest policy formulation	
Level of subordination of Head of Forestry with in the Ministry	Subordination to Minister 1st level 2nd level 3rd or lower level
Other public forest agencies at national level	
Institution(s) responsible for forest law enforcement	

T15b Human resources

FRA categories	Human resources within public forest institutions					
	2000		2005		2008	
	#	% Female	#	% Female	#	% Female
Total staff						
...of which with university degree or equivalent						

T16 Education and research

Rationale:

- Capacity for education and research
- Capacity to implement SFM

T16 Education and research

FRA categories	Graduation of students in forest-related education					
	2000		2005		2008	
	#	% Female	#	% Female	#	% Female
Master's degree (MSc) or equivalent						
Bachelor's degree (BSc) or equivalent						
Technician certificate / diploma						
FRA categories	Professionals working in publicly funded forest research centres					
	2000		2005		2008	
	#	% Female	#	% Female	#	% Female
Doctor's degree (PhD)						
Master's degree (MSc) or equivalent						
Bachelor's degree (BSc) or equivalent						

T17 Public revenue collection and expenditure

Rationale:

- Forest sector contribution to government finances
- Government support to the forest sector

Reporting

- New table in FRA 2010
- Two parts
  - government revenues
  - government expenditures

T17 Public revenues and expenditures

FRA category	Revenues (1000 local currency)	
	2000	2005
Forest revenue		

FRA categories	Expenditures 1000 local currency		
	Domestic	External	Total
Operational expenditure			
Transfer payments			
Total public expenditure			

- ❑Reforestation
- ❑Afforestation
- ❑Forest inventory and/or planning
- ❑Conservation of forest biodiversity
- ❑Protection of soil and water
- ❑Forest stand improvement
- ❑Establishment or maintenance of protected areas
- ❑Other, specify below

Thank you for your attention!