

....and what does not work so well???

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In 1923 the world first learned about global forest resources...

... in 1948 FAO began monitoring forest resource change





.... so what difference did this knowledge make?







Four key global results have made a difference since 1923...



Widespread forest loss in the tropics was detected



Resulting in 60+ years of investment

### Gaps in wood supply were identified



... resulting in increased planting

3

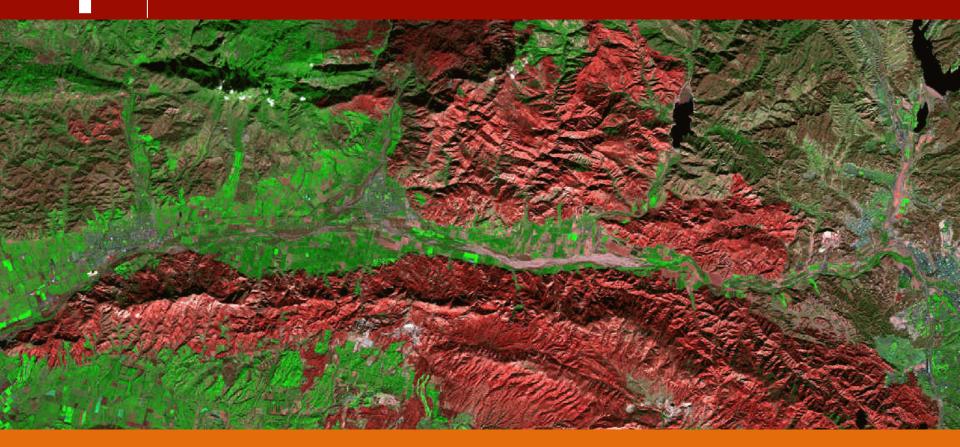
Forest conversion was identified as a contributor to global climate change



Forest management is now part of global mitigation strategies

4

Remote sensing was proven as a tool for monitoring forest resources



Leading to some 100 earth observing satellites



Since 1948, most of this information has come from one source: the Global Forest Resources Assessment (FRA)







...so what have we learned about the process that relates to climate change....?







### What do our users want?

- 1. Consistent definitions
- 2. Easy to interpret data
- 3. Potential for practical use
- 4. Known levels of quality/precision





Broad consultation with experts, stakeholders – building on past FRA experience guided by longterm strategy



### **Process**



### Challenges

- High demand for additional information
- Limited capacity for countries to respond
- Very different stakeholder interests

- National Correspondents from ~160 countries
- Collaborative Forest
   Resources Questionnaire
   (CFRQ)



### Partnerships



- Changes in National Correspondents
- Limited training resources
- Timing differences for regional partner reporting needs



### The Collaborative Forest Resources Questionnaire: Making Joint Data Collection Work

#### Statistics on:

- Forest area and characteristics
- Production
- Biodiversity
- Disturbance
- SFM
- Economics/ownership
- Projections



### Statistical content



Changes with every cycle

- Definitions are unevenly applied
- Time series are updated with every reporting cycle

- Mostly online:
  - FRIMS
  - Flexibility to allow off line reporting
  - Online error checking
- Review and data cleaning provided centrally



### Data entry



## Challenges

- Software bugs
  - Scarce resources for improvements
- Uneven reporting formats for off line submissions
- Online connections for some countries





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English

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- Reports from sovereign governments
- Remote sensing analyses reviewed and revised by national experts
- Special studies



#### Data sources



### Challenges

- Not spatially explicit
- Original data not always described
- Reporting is often incomplete



### Primary Forest – Climatic Domains

Domain	Total no of no of countries reporting		Percent	
Boreal	6	6	100	
Sub-Tropical	36	32	89	
Temperate	48	43	89	
Tropical	142	119	84	







### Carbon Storage – Global reporting

	proportion of countries reporting	% of Total Forest Area
Above ground	162/234	82
Below ground	160/234	82
Soil	109/234	64

Note: Data based on most recent year of reporting (2015)





- Transparent indication of quality through IPCC-like tier system
- Quality control through peer-review
- Online system checks during data entry



### Measures of Quality



# Challenges

- Unknown precision
- Inaccurate reporting where capacity is weak
- Numbers may not add up
- Time series inconsistencies



### Carbon Storage – Climatic Domains

Domain	Carbon above ground		Soil carbon		Difference
	% Forest Area*	proportion of countries	% Forest Area*	proportion of countries	%
Boreal	100	5/6	99	4/6	-20
Sub-Tropical	52	27/36	24	18/36	-33
Temperate	65	39/48	39	24/48	-38
Tropical	88	100/142	70	63/142	-37

<sup>\*</sup> Percentage of forest area reported compared to total forest area in the same category







### Primary Forest – Income Categories

Income category*	n <sup>o</sup> of countries	n <sup>o</sup> of countries reporting	Percent
Н	71	61	86
UM	55	47	85
LM	48	44	92
L	33	31	94

<sup>\*</sup> World Bank categories







### Carbon Storage – Income Categories

Income category*	Carbon above ground		Soil carbon		Difference
	% Forest Area **	proportion of countries	% Forest Area **	proportion of countries	%
Н	72	48/71	69	30/71	-32
UM	34	44/55	56	25/55	-43
LM	83	38/48	51	25/48	-42
L	96	30/33	85	24/33	-27

<sup>\*</sup> World Bank categories

<sup>\*\*</sup> Percentage of forest area reported compared to total forest area in the same category





### In summary...

- FRA challenges have persisted since 1948
- Capacity building investments need to be extensive, targeted and broad-based
- Partnerships are vital in reducing reporting burden and improving consistency
- Automation, review are critical and need substantial resources



### For more information:

Global Forest Resources Assessment (FRA)

http://www.fao.org/forestry/fra/en