How have forests changed?
Results from FRA 2015

K. MacDicken, FAO Forestry
286 national correspondents

6,000+ forest inventory

Resource partners

Global Forest Resources Assessment 2015

How are the world's forests changing?
The Collaborative Forest Resources Questionnaire: Making Joint Data Collection Work
How have forests changed?
But first, how have we changed in the past 25 years?
Annual wood removal:

High income countries:
- Industrial: 893 million $m^3$
- Woodfuel: 187 million $m^3$

Low income countries:
- Industrial: 28 million $m^3$
- Woodfuel: 431 million $m^3$
Net emissions from forests: 1.5 Gt CO₂ per year

Land conversion: 129 million ha
Natural forest

239 million ha

Planted forest

110 million ha

Protected area

200 million ha

Biodiversity conservation

150 million ha
...and we changed the extent of global forest area
Forest area loss has been cut in half and is now less than one-tenth the rate of human population growth.
Percentage of land area

- 1990: 4,128 million ha
- 2015: 3,999 million ha

31.6% vs. 30.6%
... and in forest area per capita

- 0.8 ha pp in 1990
- 0.6 ha pp in 2015
Lost or burned: which is more important?

Nearly 7 million ha of natural forest lost per year from 2010-2015.

compared to

An average of over 50 million ha of forest land burned every year.
Forest area continues to expand in the temperate and boreal zones and contract in the tropics.
Forest area gains and losses

- The biggest loss has been in the tropics, particularly in Africa and South America.
- Net forest area has increased in over 60 countries and territories, most of which are in the temperate and boreal zones.
Tropical forest loss

6.6 million ha per year
Agricultural expansion in the tropics

7.2 million ha per year

Tropics: 2000-2010
The bulk of the world’s forest is natural forest.

But the share of planted forest is increasing.

<table>
<thead>
<tr>
<th>Year</th>
<th>Natural forest (%)</th>
<th>Planted forest (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>2005</td>
<td>94</td>
<td>6</td>
</tr>
<tr>
<td>2015</td>
<td>93</td>
<td>7</td>
</tr>
</tbody>
</table>
Natural forest change (1990-2015)

(1000 ha)

Net loss
- >5000
- 500 - 5000
- 50 - 500

Small change (gain or loss)
- <50

Net gain
- 50 - 500
- 500 - 5000
- >5000
Natural forest change (2010-2015)
Planted forest change (1990-2015)

1000 ha

- No data
- Net loss: 500 - 50
- Small change (gain or loss): <50
- Net gain:
  - 50 - 500
  - 500 - 5000
  - 5000 - 50000
Planted forest change (2010-2015)
Do FRA results have global implications?

Earth Summit (1992)
CBD (1992)
UNFCCC (1992)
UNFF (2000)
Our capacity to manage forests for the long-term has never been stronger.
More than half of all forest is permanent forest.
SFM supportive policies and legislation

Management Planning

Forest monitoring through inventories

Forest management certification
More measurements, monitoring, and reporting

World's forest area in 112 countries covered by national inventories completed or initiated since 2010

2014
Forest area certified as sustainably managed increased everywhere.

- More forest area is under management plans.
  - The majority of these plans require social and community involvement.

- Forests under internationally verified certifications:
  - 2000: 18 million ha
  - 2014: 438 million ha
The Future
What do countries think will happen to their forest area by 2030?

- Some countries expect it will decrease (27%)
- 21 countries expect a decrease of 65 million ha or 6% of their forest area
- Some think it will increase (73%)
- 52 countries expect a total increase of 144 million ha or 10% of their forest area
Three important take-aways

1. Forest area loss has been cut in half and is now less than one-tenth the rate of human population growth.

2. Forest area continues to expand in the temperate and boreal zones and contract in the tropics.

3. Our capacity to manage forests for the long-term has never been stronger.
Explore these resources:

- How are forests changing?
- Special Issue of Forest Ecology and Management
- Desk Reference
- Country Reports
- Forest Land Use Data Explorer

www.fao.org/forestry/fra
Forest resource information without investment and action is just interesting history...

Let us put this information to use for present and future generations...
Thank you.