

# Forest Management Accounting – Japan's perspective and info –

FOREST CARBON SINK STRATEGY OFFICE, FORESTRY AGENCY



Presentation at the pre-session workshop  
on forest management accounting

Forestry Agency, Japan

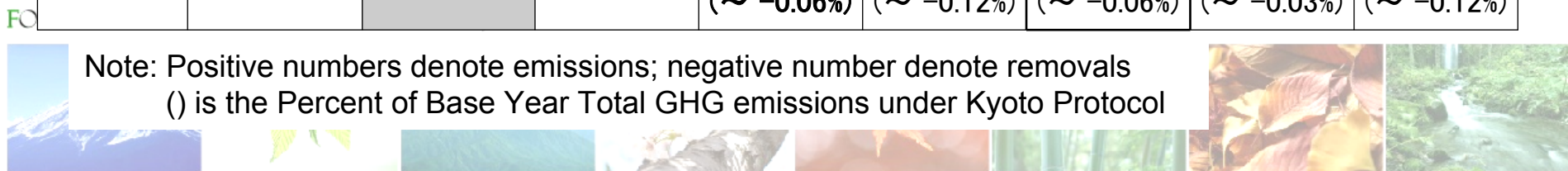
July 30, 2010

# Data on forest management in Japan (submitted in December 2009)

(Mt CO<sub>2</sub>/yr)

	A	B	C	D	E	F	G	H
	1990 emissions/ removals	Proposed reference level	Forecast for 1st CP	Forecast for 2013– 2020	Forecast based on 1990 (E=D-A)	Forecast based on reference level (F=D-B)	Forecast based on 1st CP (G=D-C)	Forecast under Option B
				Year: 2015				
				~ -39 (~ -3.1%)	~ 14 (~ 1.1%)	~ -39 (~ -3.1%)	~ 9 (~ 0.7%)	~ 14 (~ 1.1%)
				Year: 2020				
				~ -37 (~ -2.9%)	~ 19 (~ 1.5%)	~ -37 (~ -2.9%)	~ 15 (~ 1.2%)	~ 19 (~ 1.5%)
				Year: 2015				
				~ -0.54 (~ -0.04%)	~ -1.3 (~ -0.10%)	~ -0.54 (~ -0.04%)	~ -0.17 (~ -0.01%)	~ -1.3 (~ -0.10%)
				Year: 2020				
				~ -0.72 (~ -0.06%)	~ -1.5 (~ -0.12%)	~ -0.72 (~ -0.06%)	~ -0.35 (~ -0.03%)	~ -1.5 (~ -0.12%)
HWP only (For reference)	0.76 (0.06%)	0	~ -0.36 (~ -0.03%)					

Note: Positive numbers denote emissions; negative number denote removals  
( ) is the Percent of Base Year Total GHG emissions under Kyoto Protocol



# Japan's proposed reference level

- Japan's proposed reference level is zero (0)
  - Japan considers that Gross-net with “narrow approach” is the best approach, thus, setting the reference level as zero. It is substantially equal to Gross-net.
- Reference Level for HWP is also zero (0)
  - The same approach in setting the reference level for forest management should apply for HWP as far as HWP is sixth pool of forest in order to keep consistency.

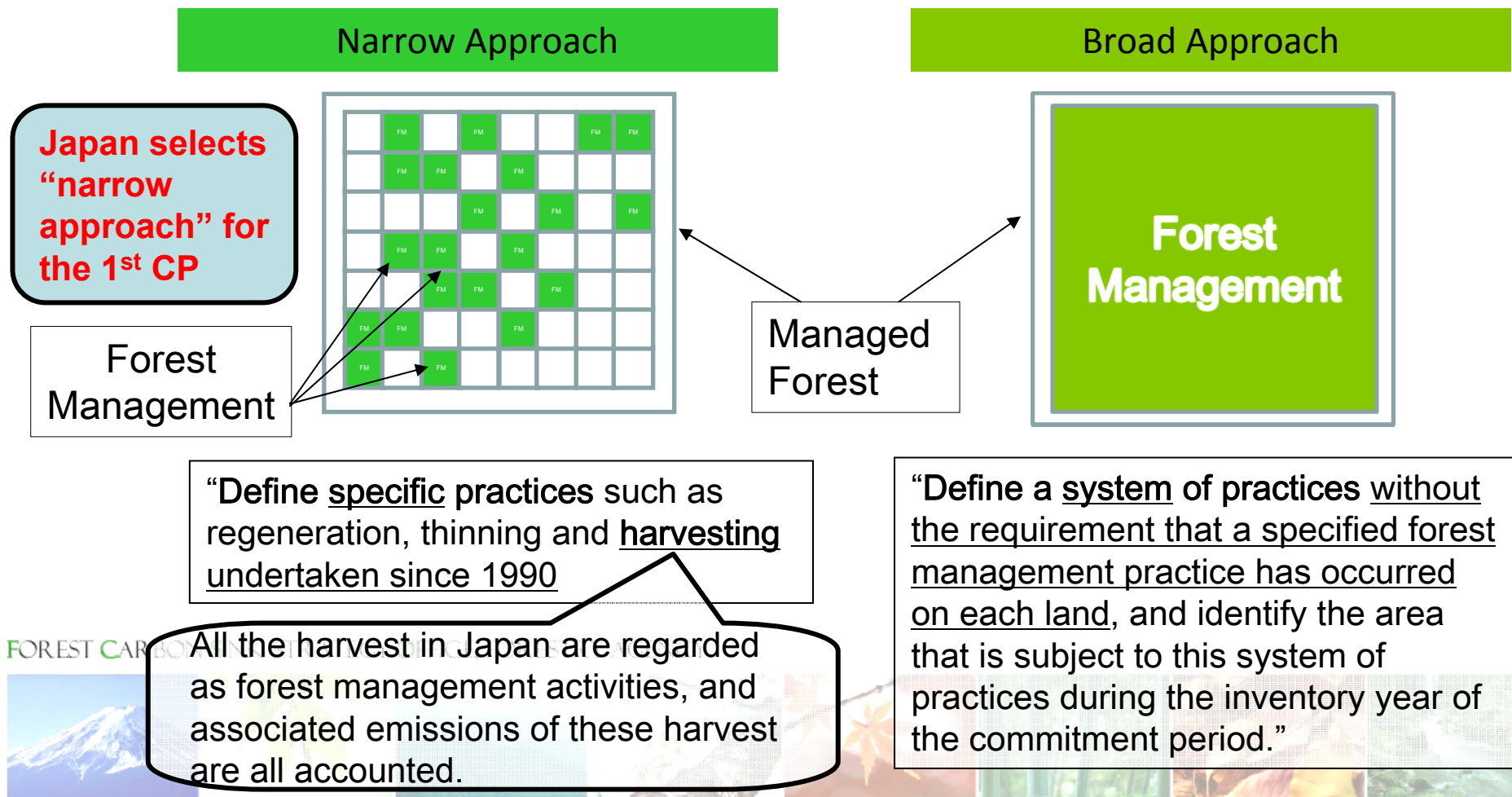


# What is Narrow Approach?

## - Narrow Approach and Broad Approach -

- GPG-LULUCF presents two different approaches on the identification of areas subject to forest management:

- Narrow Approach & Broad Approach (GPG-LULUCF 4.2.7.1)



# Japan's proposed reference level

## ■ Relation with note 2 of para 11 Option 2 (reference levels)

- (a) Removals or emissions from forest management as shown in greenhouse gas inventories and relevant historical data
- The difference of removals from **forest under UNFCCC (80Mt-CO<sub>2</sub>eq.)** and removals from **forest management under Article 3.4 of Kyoto Protocol (45Mt-CO<sub>2</sub>eq.)** in Japan
    - clearly explains that “narrow approach” takes into account the human-induced issue, and
    - justifies Japan's proposal of reference level = 0 on the condition that narrow approach is continued to be used.

### (b) Age-class structure

- Age-class structure is important because the degree of forest maturity can be estimated.
- In Japan, net removals are expected to decline due to age-class structure even in the presence of extensive sustainable forest management activities. The forest management rule should not hinder efforts on future SFM activities in such countries as Japan.

- Japan's proposal on reference level fully takes into account this issues.



# Japan's proposed reference level

## ■ Relation with note 2 of para 11 Option 2 (reference levels)

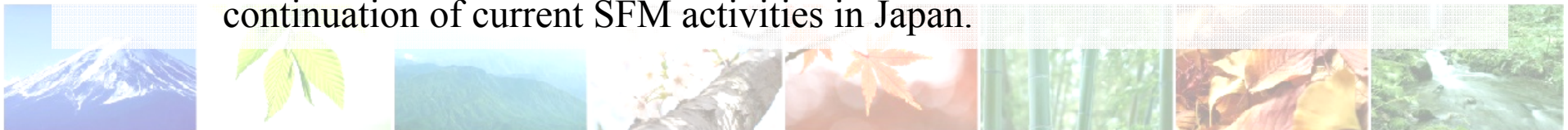
### (c) Forest management activities already undertaken

- Japan has maintained two-third of the total land area as forest and promoted SFM over a long period of time. In addition, Japan has promoted SFM activities, inter alia, thinning in the 1st CP.
- Application of historical removal/emission or BAU projection as reference levels to countries like Japan downgrades their past efforts of forest management activities and hinders FM activities during the current CP.
- Thus, countries like Japan should apply reference level = 0 with narrow approach so as to promote new and additional FM activities.

### (d) Projected forest management activities

- Reference level should be set to promote future SFM activities.
- For the assurance of future sustainable activities, the rule of next CPs should give similar incentive to these activities to the current rule.
- Without incentives, proper level of FM activities might be decreased significantly. Reference level =0 with narrow approach will promote the continuation of current SFM activities in Japan.

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# Japan's proposed reference level

## ■ Relation with note 2 of para 11 Option 2 (reference levels)

(e) Continuity with the treatment of forest management in the first commitment period

- Forest management is elected in the first commitment period in Japan.
- The continuity with treatment of FM is essential to maintain incentives for continued SFM created under the current rules in Japan.
- The continuity and coherence of policy and SFM should not be hindered due to significant change of international rule in the short term.
- Thus, Japan's proposed rule is basically the same as the current rule

(f) The need to exclude removals in accordance with decision 16/CMP.1, paragraph 1 (h).

- It is scientifically difficult to exclude removals in accordance with decision 16/CMP.1. paragraph 1(h)
- “Narrow approach” takes into account the direct human activities to be accounted as it excludes the accounting of removal of forests where there is no specific FM practices.



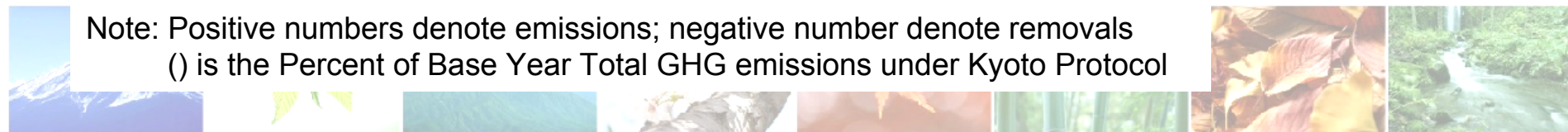
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(Mt CO<sub>2</sub>/yr)

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Note: Positive numbers denote emissions; negative number denote removals  
( ) is the Percent of Base Year Total GHG emissions under Kyoto Protocol





# Forecast on emissions/removals on Article 3.4 Forest Management in 2020

- Forest management emissions/removals in 2020
  - $\sim -37$  Mt CO<sub>2</sub>/yr (HWP as instantaneous oxidation)
  - $\sim 2.9$  % of base year total GHG emissions
- HWP emissions/removals in 2020
  - $\sim -0.72$  Mt CO<sub>2</sub>/yr (credit; applying paragraph 21 Option 2 of Annex Option A with some assumptions)
  - $\sim 0.06$  % of base year total GHG emissions

Note: Positive numbers denote emissions; negative number denote removals

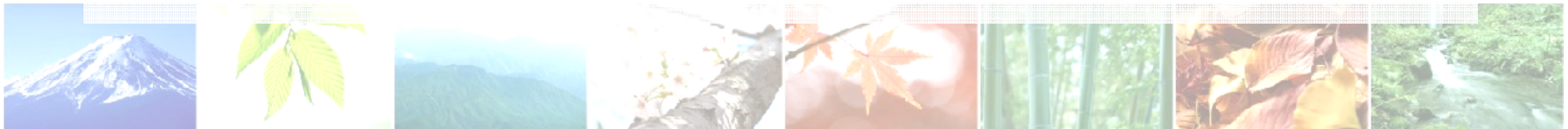
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# The Assumption of the forecast on emissions/removals - Forest Management -

- “**Narrow approach**” is continuously used in the same manner as in the first commitment period.
- The current level of forest management activities (thinning, etc.) , **which are promoted for achieving Kyoto Protocol’s commitment of 6% emission cut (and 3.8% removal by Article 3.3 and 3.4 Forest Management )**, continues to be maintained
  - Thinning: 550 thousand ha/year
  - Protection and conservation measures of forests
- Thus, **this forecast is different from the BAU projections**

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# The Assumption of the forecast on emissions/removals - Forest Management -

- The change of the level of harvesting /planting and subsequent change of forest area /age class structure are forecast in accordance with the current basic government plans of forest and forestry including the Nationwide Forest Plan (2008)
- Nationwide Forest Plan (2008)
  - 15-years nationwide forest plan established under the Forest Law by Minister of Agriculture, Forestry and Fisheries and updated every 5 years
  - Planned goal of forest management and forest conservation as well as harvest volume and area for planting to be achieved through the 15-year period

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# The Assumption of the forecast on emissions/removals - HWP -

- Using the approach described in paragraph 21 Option 2 of Annex Option A contained in FCCC/KP/AWG/2010/6/Add.2/
  - Only domestically produced and consumed HWP pool is accounted on the basis of estimates of when emissions occur.  
HWP is assumed as instantaneous oxidation when they are exported.
  - Emissions from HWP pool arising from wood harvested prior to 2013 is included
  
- Domestic wood supply will remain almost stable in accordance with the current basic government plans
  - Demand for wood will gradually decrease as expected from past few years trend of each product category because of depopulation etc.
  - Domestic wood supply will remain almost stable in accordance with the current basic government plans (Basic Plan for Forest and Forestry (2006)).



# Basis of the assumptions -Nationwide Forest Plan (2008)-

- Target Period :  
FY2009 ~ FY2024
- Planning Unit :  
44 river basins

Based on the natural  
conditions and  
administrative  
boundaries,



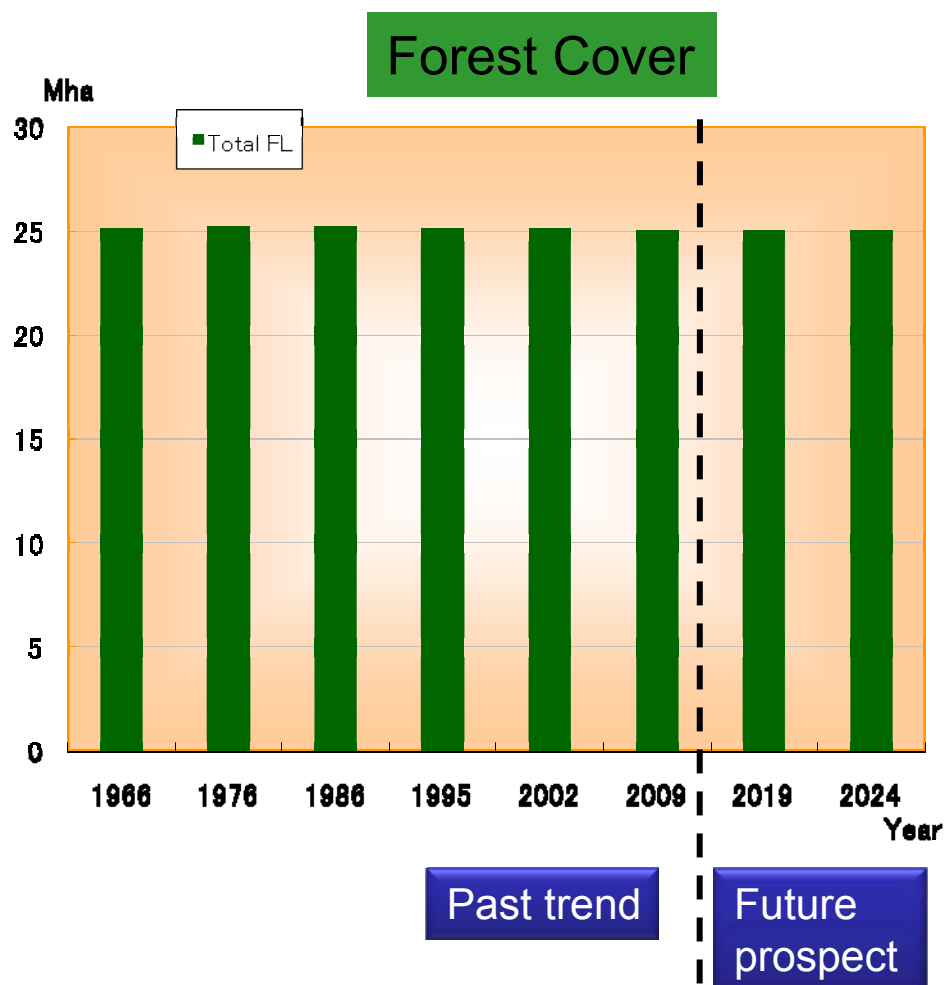
# Basis of the assumptions -Nationwide Forest Plan (2008)-

## ■ Forest Cover

- ◆ Maintained virtually constant (around 25Mha)
- ◆ Conversion from semi-natural forests to intensively managed forests is very small

✓ Ikuseirin-Forest  
(Intensively Managed Forest)  
11.27Mha→11.81Mha

✓ Tennenseirin Forest  
(Naturally regenerated forest)  
13.83Mha→13.29Mha



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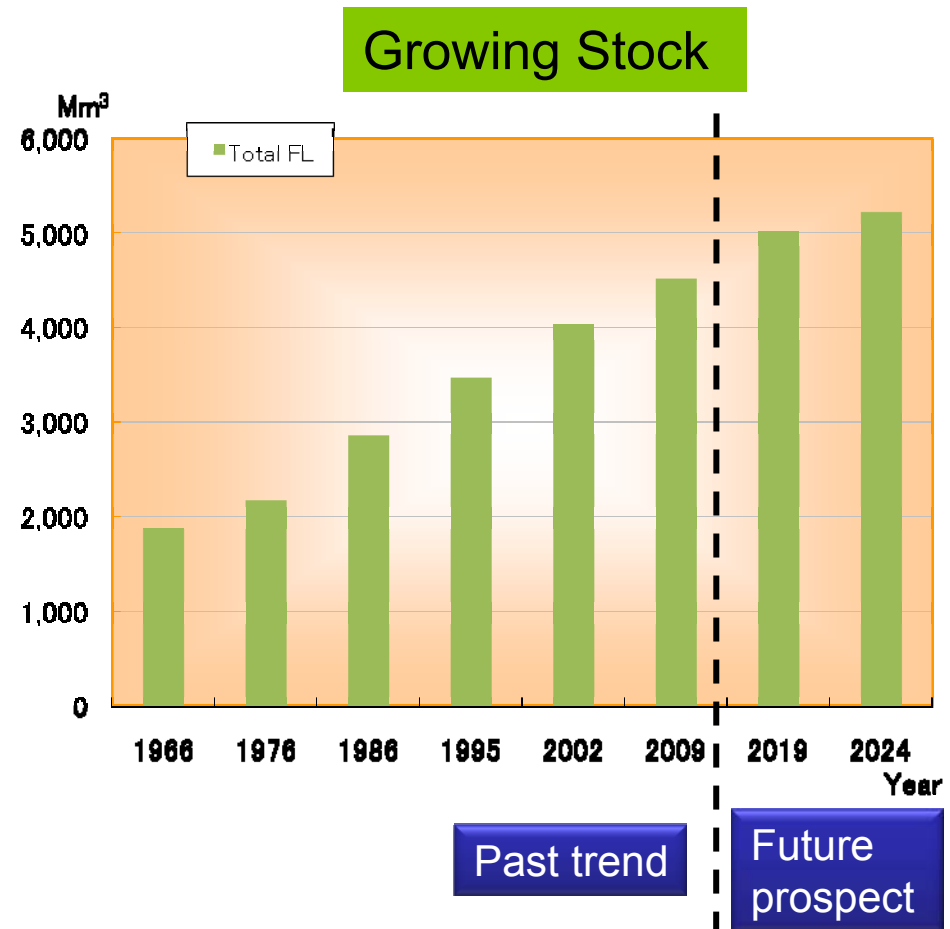


# Basis of the assumptions

## -Nationwide Forest Plan (2008)-

### ■ Growing Stock and Annual Net Increment

- ◆ Growing Stock : Keep increasing for the planning period
- ◆ Annual Net Increment : passed peak around 2005 and is considered to decrease in the future  
69Mm<sup>3</sup>(2015)→58Mm<sup>3</sup>(2025)
- ◆ Planned Harvest Volume (excluding thinning):  
15Mm<sup>3</sup>/yr

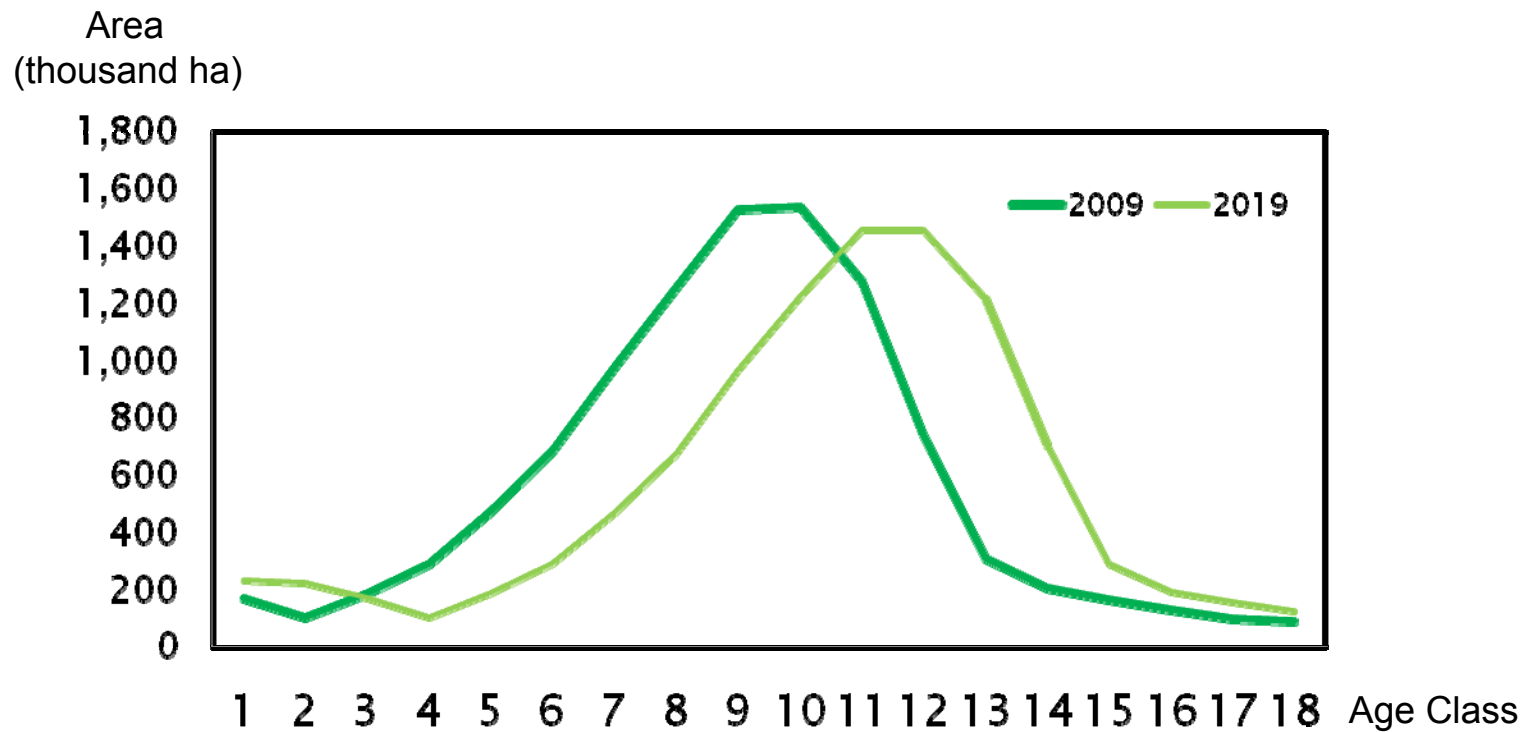


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# Transition of Age Class Structure in Intensively Managed Forest (2010-2020)

Planned harvest volume is less than one-third of annual increment of forest volume.

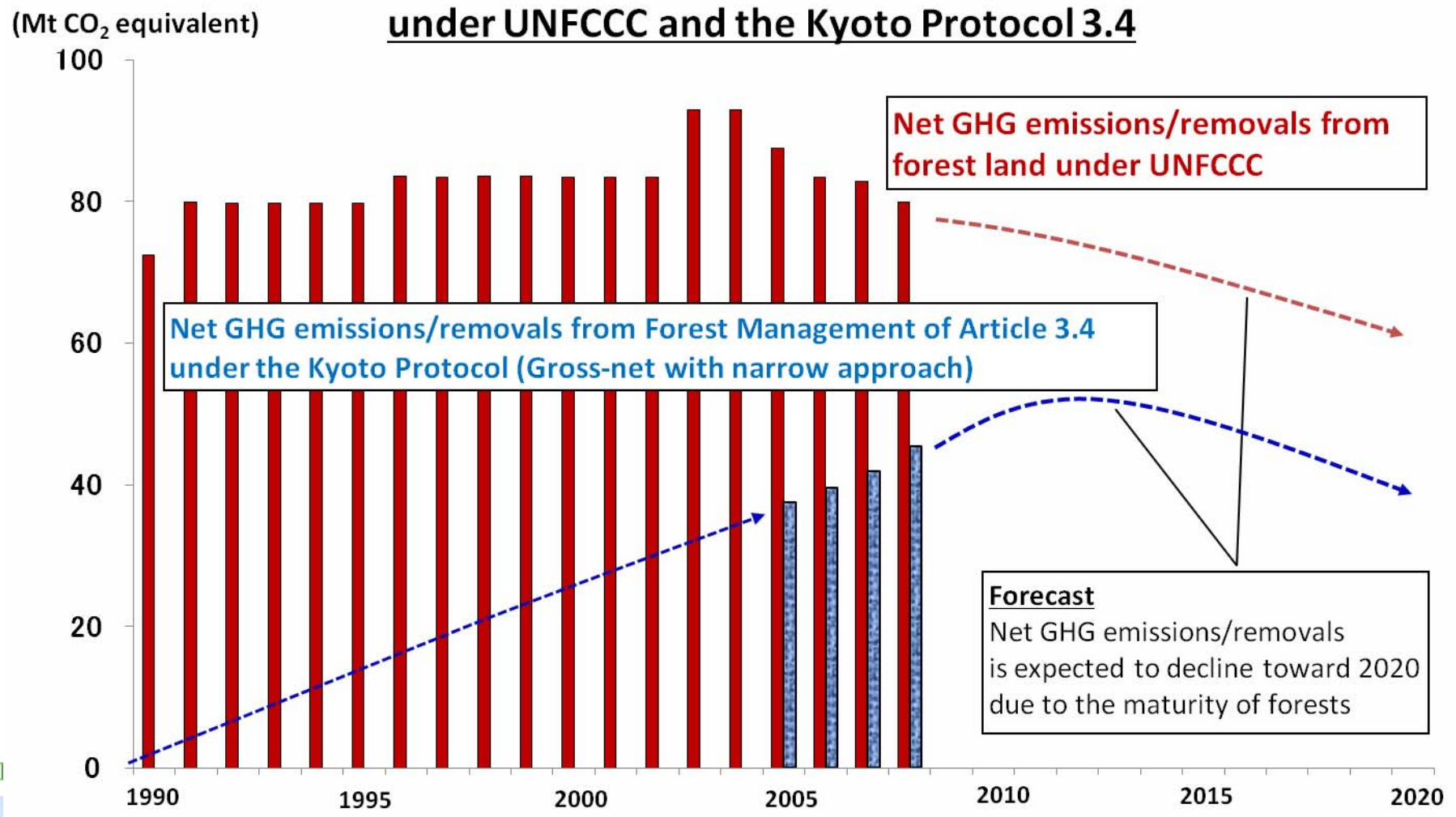


(Note: 1 Age class = 5 years)

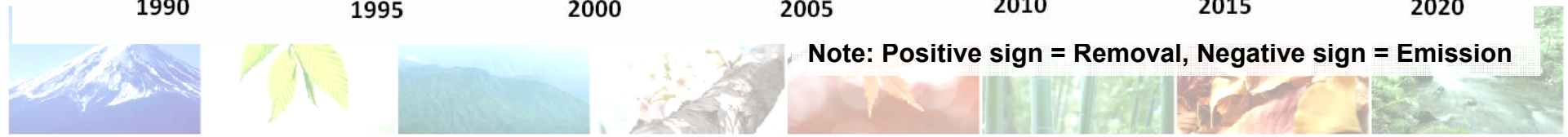


# Historical Data and Preliminary Projections (Managed Forest/Forest Management)

## Net GHG emissions/removals from forest under UNFCCC and the Kyoto Protocol 3.4



Note: Positive sign = Removal, Negative sign = Emission



# Japan's future course of forest and forestry policy

- “The plan for revitalizing forest and forestry” (December 2009)
  - The guideline for swift revitalization of forest and forestry in Japan -
    - promote collective forest management activities, infrastructure development for these activities, and human resource development
    - establish framework for stable supply and increase the utilization of forest products
  - Under the plan, concrete policy measures and institutional framework (Forest and Forestry Basic Plan, etc) are currently being elaborated.



## For further information

- Please see the following submissions and presentation
  - December 2009 submission  
([http://unfccc.int/files/kyoto\\_protocol/application/pdf/awgkplulucfjapan041209.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/awgkplulucfjapan041209.pdf))
  - September 2009 submission  
([http://unfccc.int/files/kyoto\\_protocol/application/pdf/japanlulucf290909.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/japanlulucf290909.pdf))
  - November 2009 presentation  
([http://unfccc.int/files/kyoto\\_protocol/application/pdf/awgkplulucfdatajapan051109.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/awgkplulucfdatajapan051109.pdf))
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