The global context for change and loss of forest biodiversity

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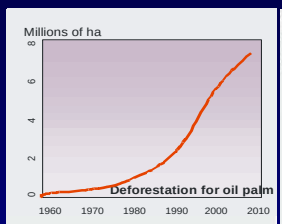
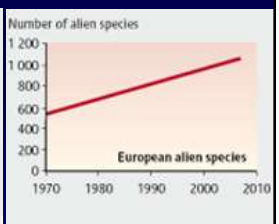
COP 10

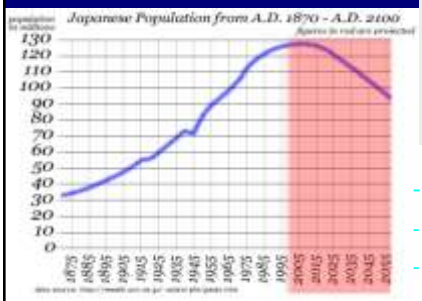
Nagoya, Japan, October 2010

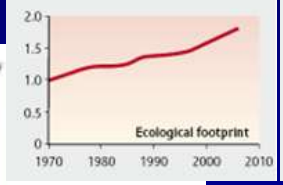
- **The 2010 Biodiversity Target has not been met**
  - **No sub-target completely achieved**
  - **Most indicators are negative**
  - **No government (i.e., Party) has claimed success**
  - **Direct pressures constant or increasing**
- **Projections show continuing and accelerating extinctions, habitat loss, changes in distribution and declining abundance of biodiversity**
- **High risk of dramatic biodiversity loss and degradation of services as we approach thresholds**
- **Loss is preventable and even reversible with strong, urgent action**

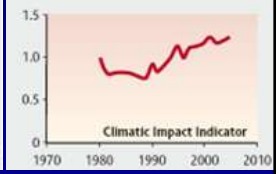
What are the key drivers of change and biodiversity loss?





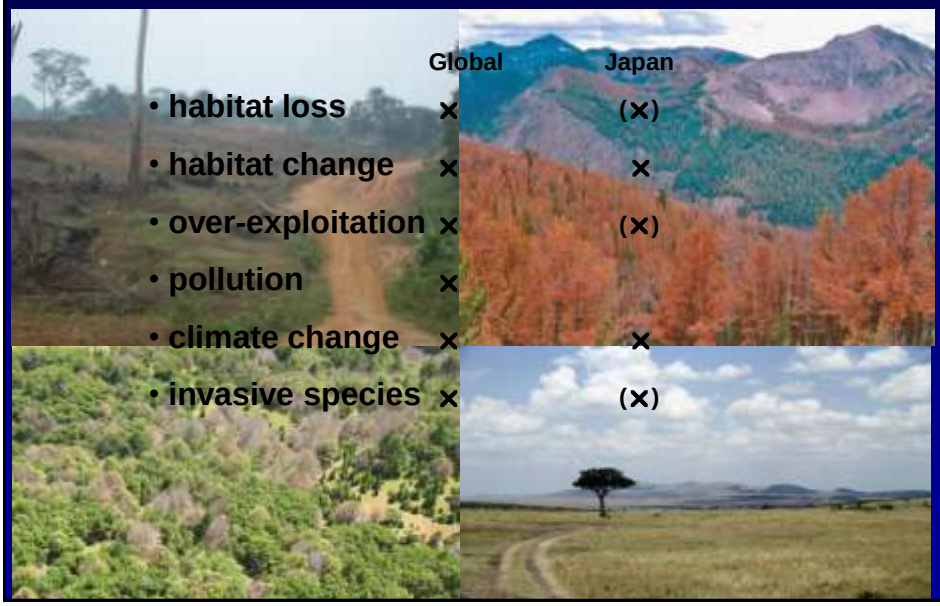






- Global population is predicted to continue rising
- demand for resources is increasing
- poverty rate will continue rising
- indicators of biodiversity loss are rising

What are the key causes of extinction and forest biodiversity loss?



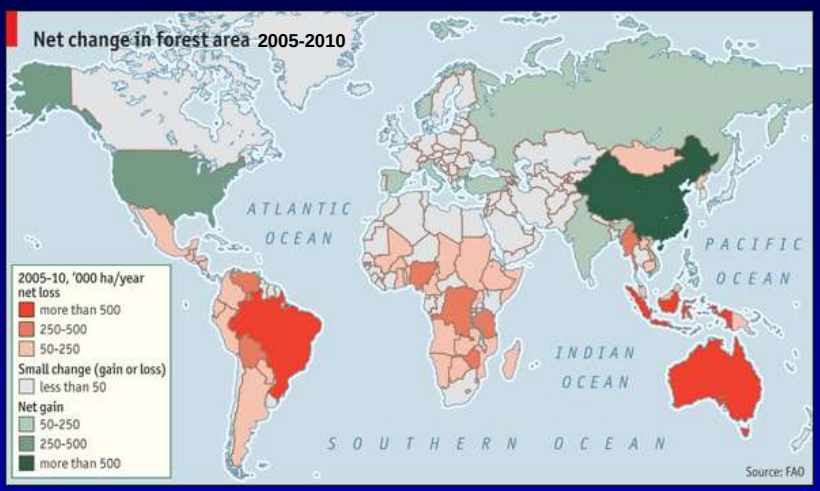
	Global	Japan
• habitat loss	×	(×)
• habitat change	×	×
• over-exploitation	×	(×)
• pollution	×	
• climate change	×	×
• invasive species	×	(×)

We are still losing forests

- although the rate of net loss has slowed (now 7 million ha/yr), the actual amount of deforestation has not declined
- we still lose about 13 million ha of forest each year (FAO)
- global loss of 40 million ha of primary forest since 2000
- degraded forests may be at least equivalent to loss (e.g., Foley et al. 2007)

Photos: FAO, FRA 2010

Where we are losing forests? (FAO data, 2010)



Why are we still losing forests?

• the causes have not changed for more than a decade:

- clearing for oil palm plantation
- clearing for cultivation and settlement
- clearing for ranching and agriculture

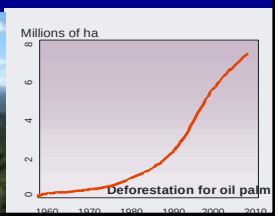
• Population growth and reliance on resources

• Lack of adequate tenure and access rights

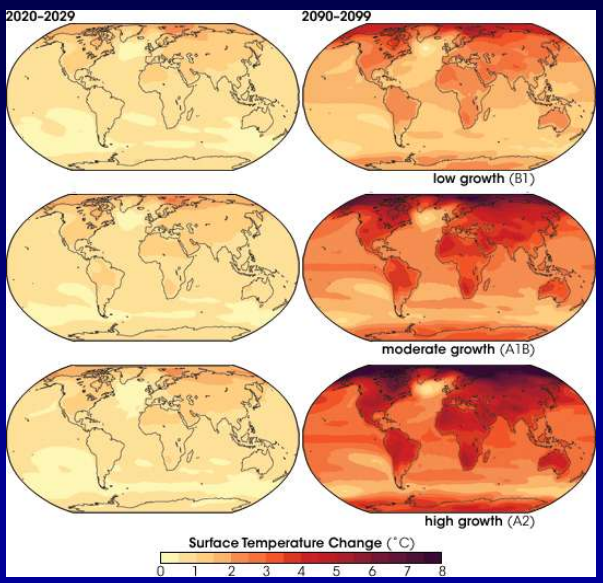
• Inappropriate valuation of forest resources

• Poor land planning

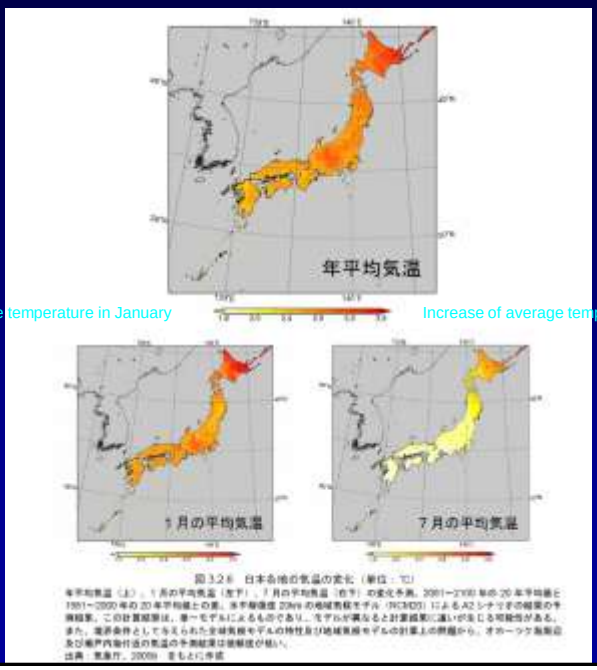
• Poverty



Global climate change predictions



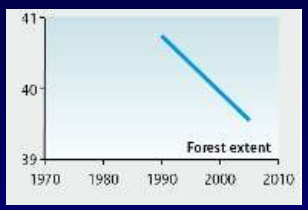
Increase of annual average temperature

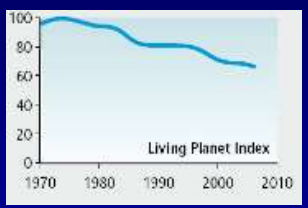


Increase of average temperature in January

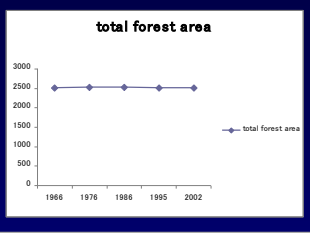
Increase of average temperature in July

Global indicators

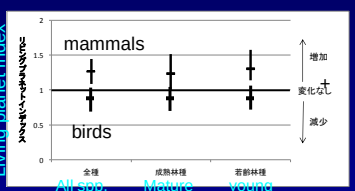




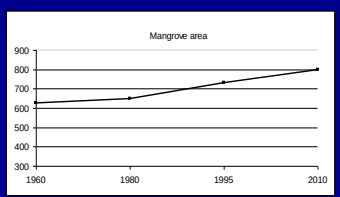
Japan indicators



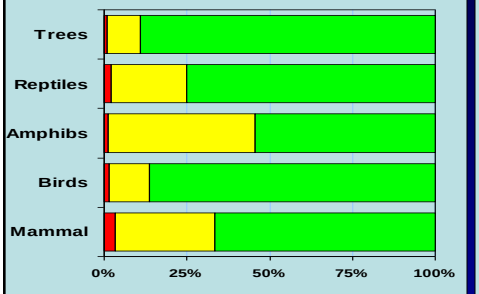
Living planet index



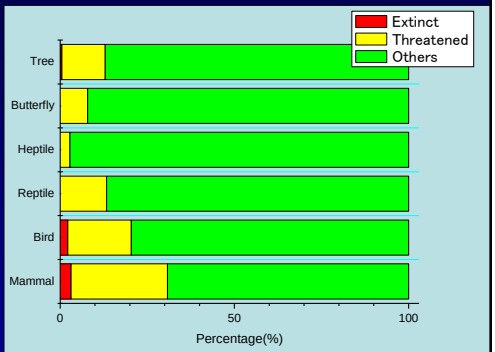
All spp. Mature young



Global rates for key taxa

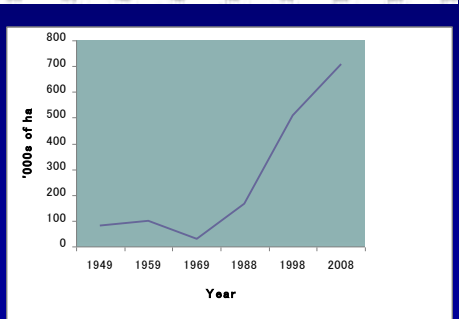


Japan rates for key taxa



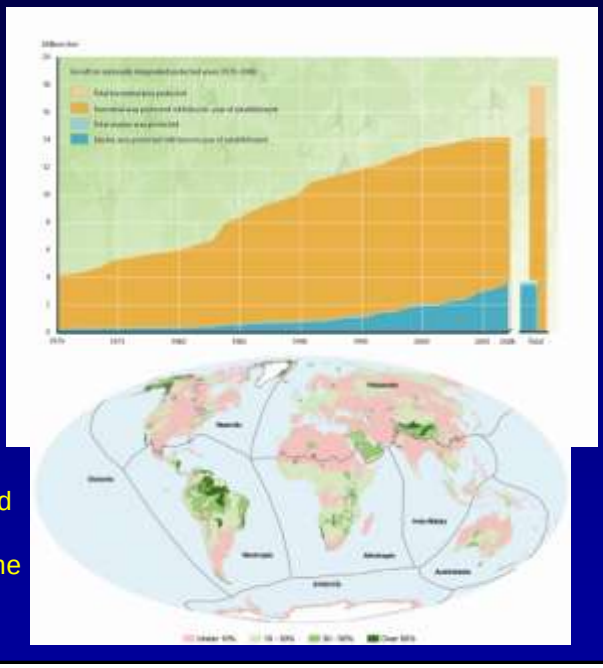
Protected areas have been increasing

World



Japan - terrestrial

Protected areas in terrestrial and marine systems



Where protected areas are by region and biome

Conclusions

- global biodiversity continues to be lost
- the drivers are the same but their magnitudes differ depending on circumstance
- climate change will become more important in the future
- Japan has clearly lost forest biodiversity prior to 1950
- Japan continues to make efforts to understand and conserve its forest biodiversity