

Korea's National Green Growth Strategy: Old and New

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Concerns about “Going Green”



◆ “Post-Modern” Agenda for High-Income Countries

- Focus on the Environment: Save the planet—what about people?
- Satiation with Growth: Relationship between Income and Happiness
- Concern about Waste: Sustainable Consumption and Production
- Rigid Approaches: Quantity Targets Without Cost Consideration
- Fancy Solutions: Smart Infrastructure, Technology, and Cap and Trade

◆ Pretext for Trade Protectionism

- Import Restrictions for Non-Compliance with Climate Change Response?
- Carbon Tariff / Tax Not Enough?

◆ Lack of Financing and Technology Transfer

- “Innovative” Climate Financing—where is the money?
- Affordable and Appropriate Technology

Conceptual Issues

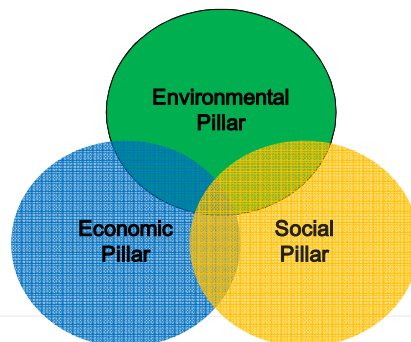


- ◆ **Green Growth: Environmentally Sustainable Economic Growth**
 - Efficient: maximizes output per given input (natural resources)
 - Clean: minimizes pollution and environmental impacts
 - Resilient: accounts for the role of environmental management and natural capital in preventing physical disasters
- ◆ **Relationship Between “Green” and “Growth”**
 - Tradeoff: Green = Expensive? Short run vs. Long run considerations
 - Annually, 1 percent of global GDP is required for climate change response, and failure to do so could risk up to 20 percent decline in global GDP (Stern Review 2006).
 - Synergy: Exploitation of new market opportunities? Fallacy of composition
 - Although climate change response may have a negative effect on global GDP, the technologies required to implement adaptation and mitigation actions would create new business opportunities for early movers, who could accelerate economic growth by taking a large share of the global market. Not everyone can be an early mover.
 - Compatibility: Green growth necessary for sustainability and prosperity

Inclusive Green Growth: Pathway for Sustainable Development



- ◆ **Sustainable Development: Inter-Generational Equity+**
 - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development 1987)
 - Economic, Social, and Environmental Pillars
 - Structural Transformation based on Capacity and Institution Building to Sustain Progress in Human Development



Korea's "Old" National Green Strategy



◆ Reforestation

- Forest Law and Erosion Control Act (1962)
- Establishment of the Korea Forest Service (1967)
- Administrative Measure to Move the Korea Forest Service from the Ministry of Agriculture to the Ministry of Home Affairs (1972)
- Synergy with Saemaul Undong
- Forest Rehabilitation Plan (1973-1978)

◆ Energy Efficiency

- Pricing Policy after Oil Shocks
- Switch to Energy-Saving Technology



Korean peasant carrying firewood to survive winter

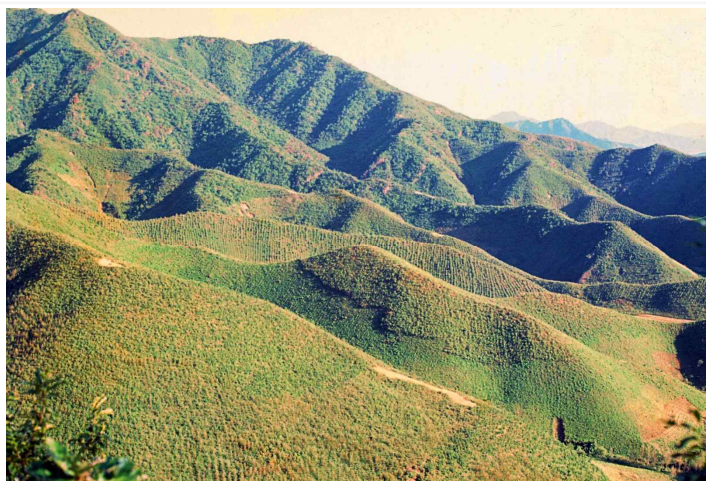


By the mid-1950s, Korea was bare of trees.

Growing stock per hectare had declined to 8 cubic meters per hectare.

Green Transformation

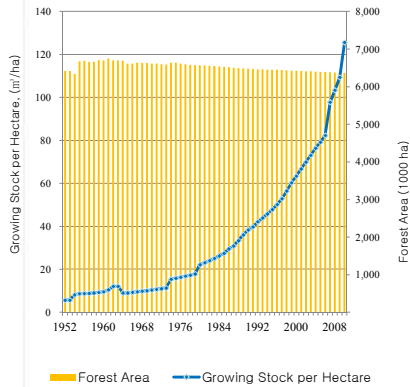
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Growing Stock Per Hectare: Korea vs. Europe

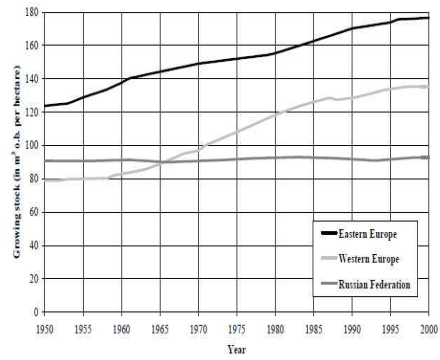


Trends in Forest Area and Growing Stock per Hectare in Korea, 1952-2010



Source: Korea Forest Service & Korean Statistical Information Service

Trends in growing stock per hectare in selected European countries from 1950 to 2000

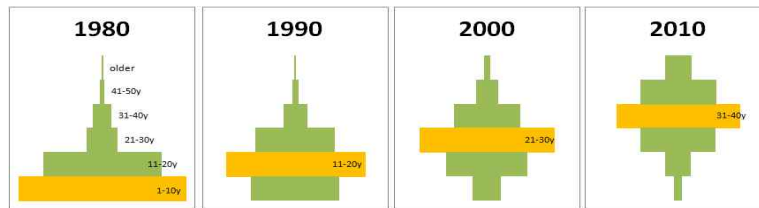


Source: Gold(2003), recited from "UN(2005), European Forest Statistics Outlook Study Main Report"

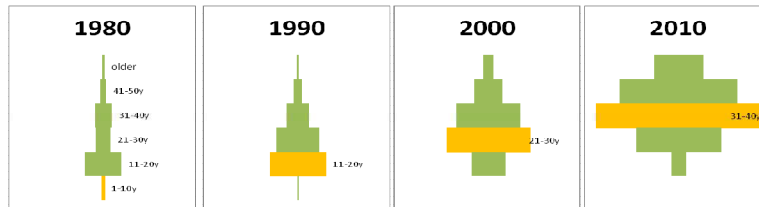
Changes in the Age-Class Structure of Forest Area and Growing Stock



Age-Class Structure of Forest Area in 1980, 1990, 2000 and 2010

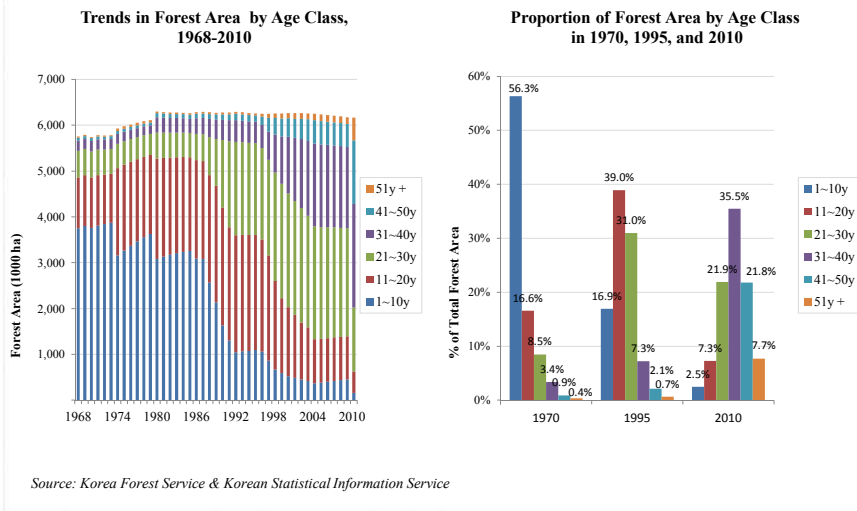


Age-Class Structure of Growing Stock in 1980, 1990, 2000 and 2010

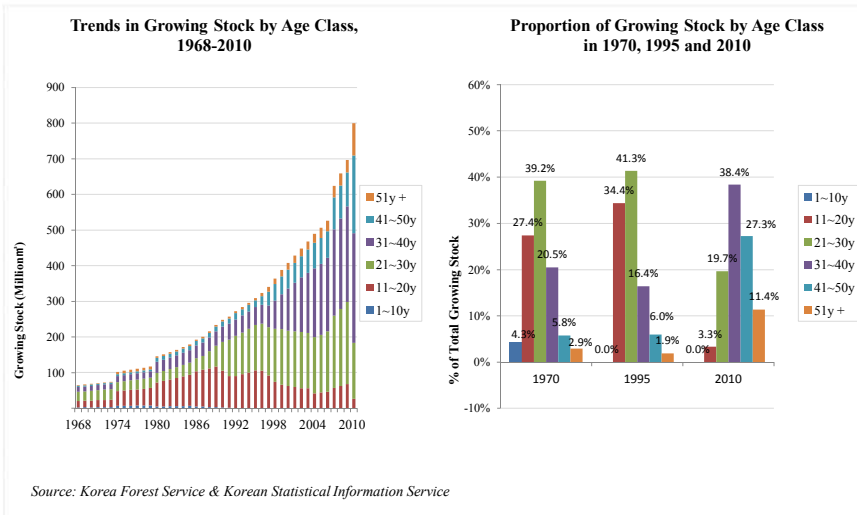


Source: Korea Forest Service & Korean Statistical Information Service

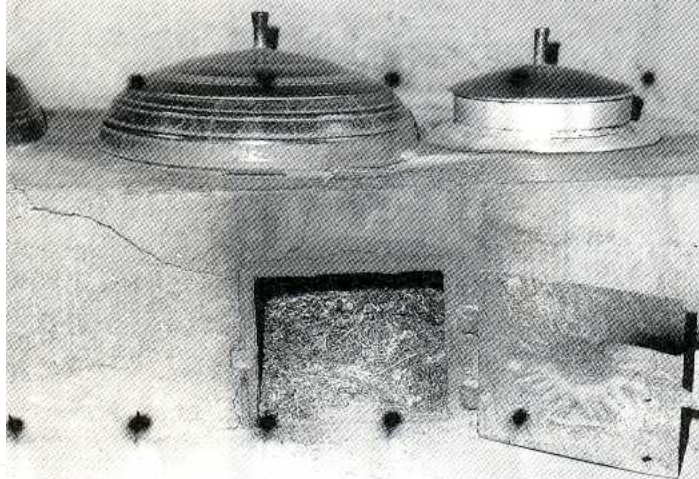
Composition of Forest Area by Age Class



Composition of Growing Stock by Age Class



Energy Efficiency: Distribution of a New Cooking Stove



Korea's "New" National Green Strategy



◆ Green Growth

- Low Carbon Green Growth as a national development vision (2008)
 - Mitigation of Greenhouse Gases and Environmental Pollution
 - New Growth Engine and Job Creation through Green Technology
- Legal Framework
 - Basic Law on Low Carbon Green Growth (2009)
 - Law on Sustainable Development of Transportation and Logistics (2009)
 - Law on Promoting the Construction and Use of Intelligent Electric Power Networks ("Smart Grid") (2011)
 - Law on Supporting the Construction of Green Buildings (2012)
 - Law on Greenhouse Gas Emissions Trading (2012)
- Global Agenda Setting

◆ Limitations

- Suspension of Fuel Cost Adjustment
- Four Rivers (Grand Canal) Project