



Korea's Forest Rehabilitation Experience and Implications for Mongolia's BTNM

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Hee Han

Seoul National University





Today's presentation is based on a lecture delivered by Professor Emeritus Kyung-Jun Lee, at Seoul National University, during the knowledge exchange held in Korea in June 2025

World evaluation on Korean forest



- ❖ UN FAO Report in 1982:

“Korea is the only developing country that has succeeded in reforestation since the Second World War”

- ❖ Mr. Lester Brown, Director of Earth Policy Institute in his book, “Plan B 2.0” (2006)

“South Korea is in many ways a reforestation model for the rest of the world..... We can reforest the earth. ”

Forests during Joseon Dynasty (before 1910)



- ❖ Forest: owned by government and open to the public
- ❖ Fuel wood collection was allowed
- ❖ Forest near villages: already destroyed
- ❖ Government timber supply policy
 - Certain forests closed to the public
 - Only pine forests were protected for government timber need (palaces, ships, government buildings)



**Bald mountains in 1903:
Government regulation of wood collection
was not effective:
Population of 20 million and cold winter
(photo: Seoul suburb in 1903)**





Barren mountains in Gyeongbuk Province in 1928:



**After liberation from Japan in 1945 and
during Korean War(1950-1953):
The most devastated forests in Korean history
(photo: 1950's)**



President Syng Man Rhee (1948-1960)



- ❖ 1946: Arbor Day Designation
(First Arbor Day: 1872 in Nebraska, USA)
- ❖ 1950: Korean War broke out.
- ❖ 1951: Temporary Forest Protection Act
- ❖ 1952: Three-Year Reforestation Plan
- ❖ 1953: Five-Year Erosion Control Plan
- ❖ 1954: Second Ten-Year Private Forest Reforestation Plan
- ❖ 1958: Ten-Year Upstream Soil Conservation Plan
- ❖ 1959: Five-Year Fuel Wood Forest Establishment Plan

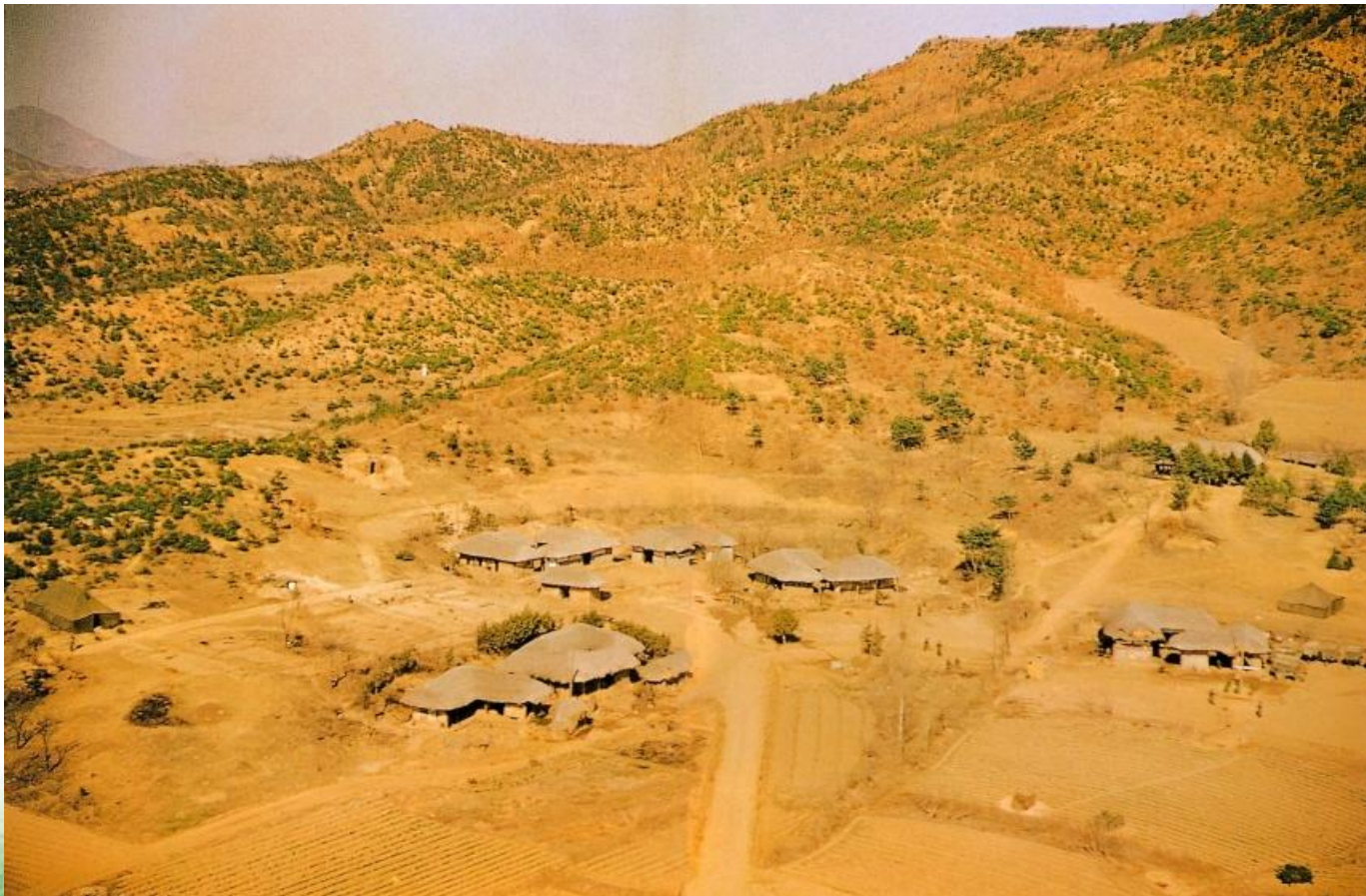


President Syng Man Rhee

**1.05million ha and 2.8 billion trees planted.
Lack of governance, technology, finance, and
people's cooperation.**



Seoul suburb in early 1960s: No roads, shabby houses, few trees



Munsan Railroad Station in early 1960s (north of Seoul)





May 16, 1961:
Coup d'état by General Chung Hee Park
with keen interest in economy and forest





Immediate eradication of five major social ills by military government

1. Smuggling
2. Narcotics
3. Illegal timber harvesting
(government's will for forest protection)
4. Gangster
5. Quasi-reporter



Dec. 27, 1961: Enactment of Forest Law

- ❖ First Forest Law since 1945
(Recognition of urgency of Forest Law)
- ❖ Mother law of present Forest Law
- ❖ Embodiment of followings:
 1. Forest ownership and management policy
 2. National forests and Reserve forests
 3. Forest protection
 4. Forest Cooperatives
 5. Penalties

January 15, 1962: Erosion Control Act



1. Designation of eroded areas
2. Methods and budgets of erosion control
3. Duties of the landowners concerned
4. Post-management of the facilities



February, 1963: Temporary Act of Forest Reclamation

- ❖ Legitimacy of compulsory labor for erosion control works
- ❖ Mobilize males at age between 29 to 33 who failed to join the mandatory military service
- ❖ Their labor mostly for erosion control works planting black locust.



Importance of **black locust** in reforestation in Korea

- ❖ *Robinia pseudoacacia*
(legume family with root nodules)
- ❖ First introduced from USA in 1898
- ❖ Benefits (advised by experts)
 1. Fix nitrogen: best choice for poor sites
 2. Improve soil fertility
 3. Fix moving soil at erosion control sites with massive root system



Benefits of black locust

4. Fuel wood production: most significant contribution to poor farmers and indirectly to reforestation
5. Green forage for goats, rabbits, deer,
6. Honey production: major income source for bee keepers in Korea
7. Perfume production: cosmetics and chewing gum
8. Durable wood production: wagon wheel, fence post, truck floor, benches, farm instruments

Fast recovery of erosion control site by black locust in 1967 (photo: four years later)



Reason of using black locust for fuel wood: rapid early growth and sprouting ability



Black locust tetraploid with broad leaves: good fodders for goats and deer



Honey production from black locust: most important source of honey in Korea



Wood property of black locust: suited for outdoor furniture without preservatives



A high quality table and chair made of black locust



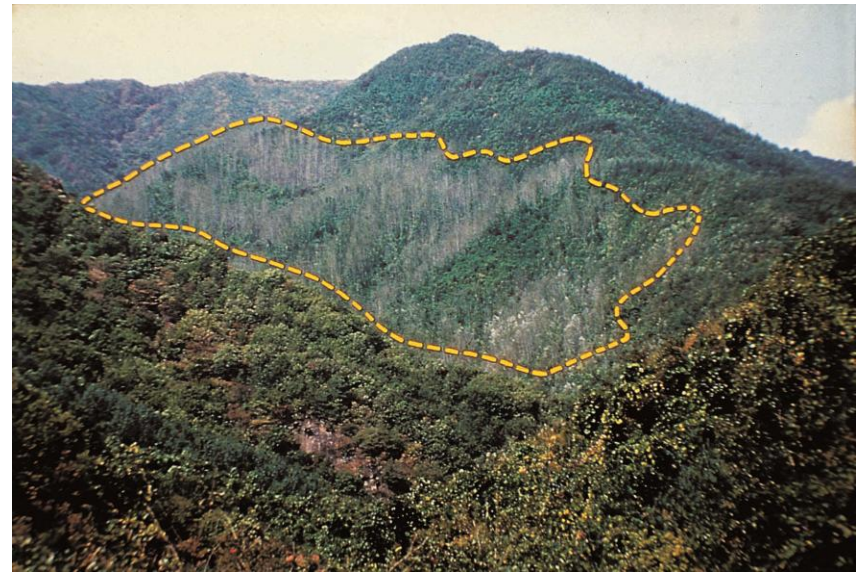
Introduction of Italian poplar for early income using abandoned field (photo; 15-year-old)



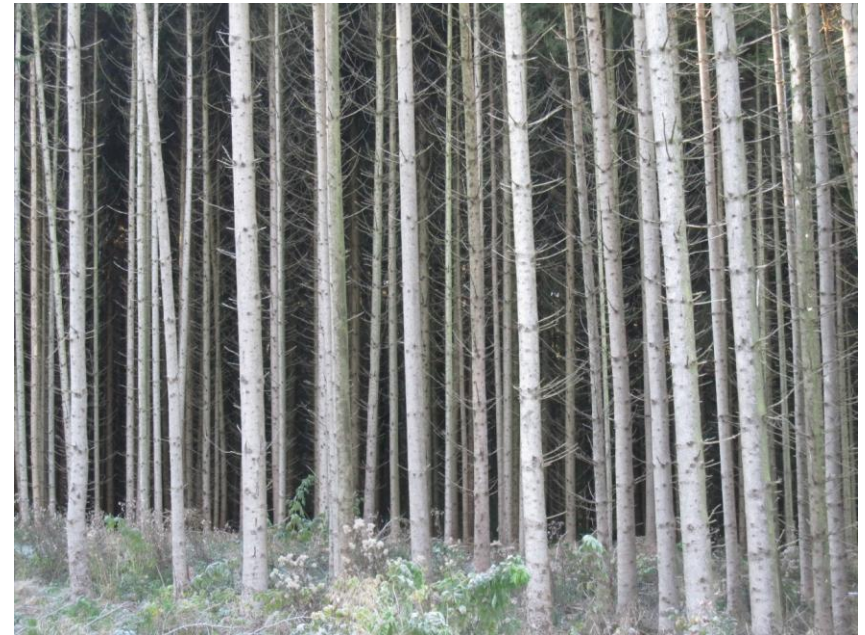
Development of a new pine hybrid:
Pinus rigida x taeda:
fast growth with straight stem



Development of new poplar hybrids (*Populus alba* x *glandulosa*) suitable for hillsides with dry and poor soil.



President Park's visit to West Germany in 1964 and admired by thick forests



President Park's visit to USA in 1965 and admired by beautiful forests.



On the way home, President Park admired by Japanese forests



**On the way home, President Park
on board cried on the scene of
Korean forests**



1967: Establishment of Forest Service:

Fuel wood plantation: 360,000ha, 1.4 billion trees
in single year (largest ever)



1968: Promotion of chestnut plantation by President Park





Benefits of chestnut planting: Three birds in one stone (reforestation, food, income)





1973: Movement of Forest Service from Ministry of Agriculture to Ministry of Home Affairs (significant forest policy change)

1. to utilize the national network of local governments (provincial and county governments)
2. to mobilize farmers through Saemaul Movement under Ministry Of Home Affairs
3. to mobilize police for forest protection
4. To get budgetary help from local government



First 10-Year Reforestation Plan

- ❖ Period: 1973-1982
- ❖ Total planting area: 1,000,000 ha
- ❖ Number of trees: 2 billion
- ❖ Ten major tree species (fast growing and timber producing species; 7:3)
- ❖ Intensive Erosion control projects
- ❖ Completion of Slash-and-burn farming regulation

Minister of Home Affairs:

Kim Hyun Ok's idea:



1. Ban of entrance into mountains and litter raking

2. "Plantation Tree Inspection System"



Plantation tree inspection system;

Improved the survival rates of trees in the plantation up to 94%



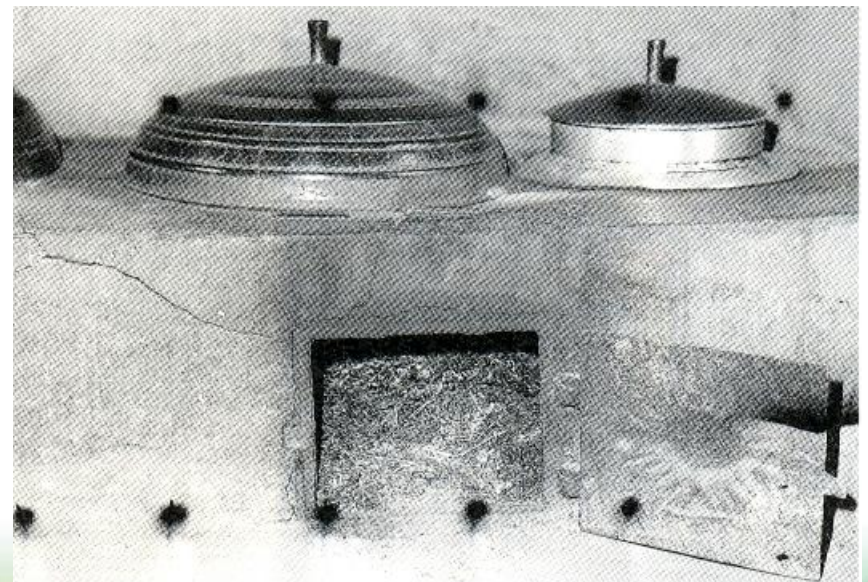
Furnace improvement resulted in saving fuel by 30%:

Government supplied new furnaces free to every farm house as a part of Saemaul Movement.

Before improvement



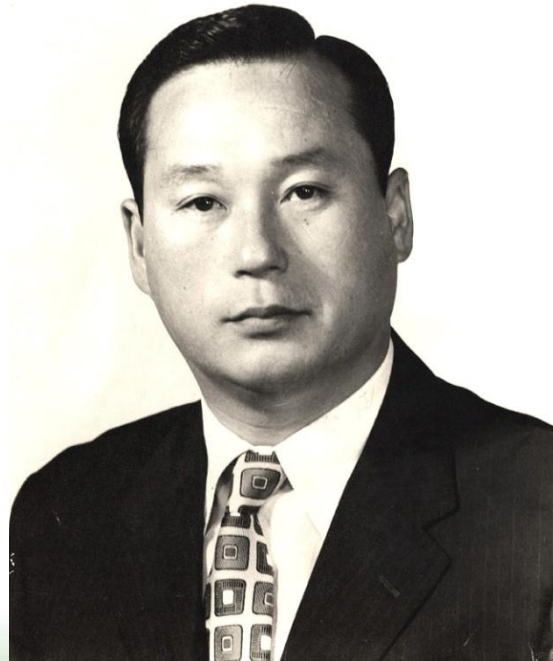
After improvement



**Chief, Soo Ik Sohn, Forest Service
(1973-1978)**



**Skillful planning and implementation of
10-Year Reforestation Plan**





Chief's Helicopter:

**Visit all the sites of nurseries and plantations
(riding a total of 500 hours in 6 years)**



Promotion of National Tree Planting Campaign



on cigarette packs

on a postage stamp



Village Forest Cooperative



- ❖ Established voluntarily to manage the village forests.
- ❖ Residents became members of the cooperative.
- ❖ Made rules and regulations to protect the forests and to produce and share forest fuels for sustainable forest management(SFM).
- ❖ Government helped to increase income of the members by contract of raising seedlings, participation in erosion control work, and supplying chestnut grafts and poplar cuttings free.

Participation in tree planting as a member of Village Forest Cooperative





Saemaul Movement: New Village Movement

- ❖ Started in 1970
- ❖ Three mottos:
Diligence, Self-help, Cooperation
- ❖ Mental education: Frequent flooding and drought will be reduced by planting trees now in the mountain hills.
- ❖ 1973: Started to play a pivotal role in reforestation by promoting voluntary participation of farmers in tree planting



Spirit of “Cooperation” in Saemaul Movement





Participation of Saemaul Women's Club





Military Saemaul Movement for tree planting





Saemaul nursery to promote income of the Village Forestry Cooperatives





Saemaul chestnut nursery (generating income to participants)



Total investment into Saemaul reforestation (1971-1987)



- ❖ Total investment into Saemaul Movement:
US16.38 billion\$
- ❖ Total investment into **Saemaul reforestation**:
US756million\$
- ❖ % of investment into reforestation: 4.6%.
-Reforestation: Considered a major project
- ❖ Number of total projects in Saemaul: over 100 projects

Erosion Control Plan(1962-1987)





Erosion Control Plan: **Terrace formation to stabilize the soil in slope,** **planting trees and grasses**



**Erosion control site: No roads
bringing in rocks, fertile soil and planting
stocks by “A-frame”
and requires many labors**



Rocks and soil carried by village women as a part of Saemaul Movement



Workers hanging on safety ropes to stabilize the steep slope



“Plantation tree inspection system” to check survival rate of planted trees



Gradual recovery of Youngil erosion control site (total area: 4,538ha)



Slash-and-Burn Farming Regulation: Enactment of law in 1966



Slash-and-burn farmers: 6% of total population or 13% of total farmers





Slash-and-Burn Farming Regulation Plan (1974-1978)

Survey in 1973:

280,000 households cultivating 120,000ha of forests

❖ Five-Year Slash and Burn Regulation Plan (1974-1978)

❖ **Strict Guide lines for regulation:**

- Slope more than 20 degree: House removal and mandatory tree planting (86,000 ha land restored into forests)
- New settlement plan near cities with providing jobs and settlement subsidy
- Continuous surveillance using aerial photographs
- Slope less than 20 degree: allowed to legally cultivate the land.

New settlement process:



- 1. government officials accompanied all the way to new houses in cities**
- 2. visited the residence every 6 months for three years by forest officers, county officers, and policemen, separately.**
- 3. reported the results to the government (President)**



Establishment of new settlement villages for slash-and-burn farmers (Gyeongbuk Bongwaha-gun Chunyang)





President Park's idea for forest fertilizer development





Second 10-year Forest Rehabilitation Plan

- ❖ Original period planned: 1979-1988
- ❖ Period finished: 1979-1987
- ❖ Total area planted: 0.96million ha
- ❖ Total number of trees planted: 1.9billion trees



First and Second 10-Year Forest Rehabilitation Plan

- ❖ Period executed: 1973-1987
(20-year plan in 15 years)
- ❖ Total area planted: 2.04million ha
- ❖ 31% of the total forest area(6.6million ha) was planted
- ❖ Total number of trees planted: 4.8billion trees

Visual changes in 1980's after successful reforestation



Miracle in the 20th century in Korea



**A beautiful forest
40 years after planting
(photo: *Cryptomeria japonica*)**



Trail walk for “forest shower” and “forest therapy” to improve human health



Official announcement of completion of reforestation in 1992



Summary:



Ten major projects by the government (1961-1979) for successful reforestation

1. Fuel wood plantation establishment
2. Erosion Control Plan
3. First 10-year Reforestation Plan
4. Slash and Burn Farming Regulation
5. Chestnut plantation
6. Cultural heritage and surrounding forest protection
7. National park system (current 22 parks)
8. Greenbelt system around major cities
9. Landscape planting in cities and cultural heritages
10. Nature Conservation Movement

Summary:



Major factors for successful reforestation

1. Strong leadership of President Park: High motivation and enthusiasm, continuous interest and support
2. Forestry Officials: Willingness to serve for government with strong encouragement by President Park.
3. Forestry Governance of Ministry of Home Affairs and Forest Service: Efficient implementation of 10-Year-Reforestation Plan.
4. Village farmers: Participation with spirit of “Saemaul Movement” (diligence, self help, cooperation)
5. Social Environment: Cheap and abundant labor, supplementary coal supply for fuel, minimum forest damages with decreasing population.

UNESCO Memory of the World Inscription



- ❖ Initiated in 1992 to safeguard the documentary heritage of humanity
 - ❖ Korea
 - 1997-2025: Registered a total of 20 archives.
 - 4th largest in number in the world
 - 1st largest in number in Asia.
1. Hunminjeongeum Haerye-bon.
 2. Annals of Joseon Dynasty
 3. Anthology of Direct Transmission of the Buddha's Mind-Nature

Achives of the Korean reforestation



- ❖ Unique history of the successful reforestation of totally devastated forests state-wide in half century.
- ❖ Pivotal roles of local communities in cooperative tree planting to promote voluntary participation.
- ❖ 2016-2023: Korea Society of Forest Policy, President, Kyung J. Lee, collected over 10,000 documents on reforestation.
- ❖ Nov. 2023: applied for inscription on the UNESCO Memory of the World.
- ❖ April 2025: finally accepted by UNESCO.

Significance of UNESCO inscription of Korea's Reforestation story

- ❖ World recognition of successful reforestation in Korea
- ❖ Importance of Village forestry Cooperatives in sustainable forest management.
- ❖ A role model of forest rehabilitation in the developing countries.
- ❖ A hope given to the world that struggles against both global warming and desertification.



Thank You !

Hee Han

Seoul National University