Kyungtae Park

International Fellow, Korea
Geography: The Korean peninsula

- Extends southward from the eastern end of the Asian continent.
- Length: 612 miles
- Width: 105 miles, at its narrowest point.
- Land area: 99,500 sq km (Oregon: 251,418 sq km), slightly larger than Indiana State.
- Population: 48 million (S.Korea) (Oregon: 3.5 million)
- The capital: Seoul

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Mountains cover 70% of Korea's land mass, making it one of the mountainous regions in the world.
China - Korea - Japan

The shortest distance between Korean and Chinese coasts is 124 miles, the nearest point on the Japanese coast is also about 124 miles away.

Chinese culture filtered into Japan through Korea; a common cultural sphere of Buddhism and Confucianism was thus established between the three countries.

The Korean peninsula is divided just slightly north of the 38th parallel. → Demilitarized Zone
DMZ (Demilitarized zone) is the distributed area from the present cease-fire line set up according to the cease-fire agreement on 27th June 1953.

The military demarcation line, 155 miles in length, 2.5 miles in width crossing the Korean peninsula.

Today, it is a heaven for rare animals, birds, plants and mines. About 1.12 million mines in this area.
Four Distinct Seasons

Spring
Warm & Sunny
from late March to May

Summer
Hot & Rainy
Monsoon rain
Typhoon
from June to early September

Autumn
Clear & Dry
from September to November

Winter
Cold & Dry
Snow
from December to mid-March
Korea, once known to be one of the world's poorest countries,
developed rapidly from the 1960s, fueled by high savings and investment rates,
and a strong emphasis on education.
Economic Growth

Key Export Commodities (2003)

Key Export Commodities (1970)
1960, Gang-Nam area

Current
Most Common Housing

1900

Current

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Housing

Tower Palace in Seoul

I-Park in Seoul

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Recently half of Koreans live in high-rise concrete apartments.

Housing policies in Korea have been mainly supply-oriented to solve housing shortage problems.

After 1970s, massive housing production was initiated and several regulations were imposed on the housing sector.
Heat Island in Seoul

Average temperature Change - Seoul

May 20th, 1987

May 7th, 2003

1987 → 2003

Forest Land: 47,000 acre → 40,000 acre
Developed Land: 86,000 acre → 93,000 acre
Deforestation
during the rule of Japanese imperialism and Korean War, most of the forested area in Korea was completely destroyed owing to illegal logging and over-harvesting.

Large scale reforestation
- Stocked forest land: 4.0 M ha – 6.3 M ha
- Stock volume per ha: 2,364 bf/ha → 30,936 bf/ha

Based on the 2004 forest statistics, Korea has 6.4 million ha of forest covering about 64.3% of total land area.

Almost 59% of forest stands are under the age of 30 years.

Thus, Korea has largely depended on imported timber, supplying about 94% of domestic timber consumption.
"A big mountain range" staring at Mt. Baekdu

The back bone and continental divide of the Korean peninsula.

The source of 14 mountain range,
The beginning point of many rivers.

The mother of all Korean mountains.

The social, sociological, cultural, and historical foundation of the nation.
Baek Du Dae Gan (continued)
Temperature: higher than 14℃. 
Forests: deciduous, mixed, or coniferous forests. 
Species: Quercus actua, Castanopsis cuspidata, and Camelia japonica.

Temperature: from 6℃ to 13℃. 
Forests: Broadleaved deciduous trees 

Temperature: 5℃ and lower. 
Forests: Coniferous, 

Around 85% of them are identified as cool temperate forests. 
Broadleaved deciduous trees are predominant in the area, however, most of them are destroyed by agricultural activities and fire leaving only pines forests.

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Conifers, 2.74, 44%

Mixed, 1.8, 29%

Broad-leaved, 1.7, 27%

Total 6.4 M ha
PRIVATE FORESTS
Owned by individuals, corporations, non-commercial organizations, temples, etc.
About 2 million private forest owners and 82% of them own less than 50 ha.
53% of the area is owned by negligent landowners who are not concerned about forest management.
Current Issues

Forest Fire Prevention in Pine Forests
Pine Wilt Disease Control
Sustainable Forest Management
Deforestation in North Korea
Enhance Commercial Forestry
Pine Wilt Disease

Sawyer beetles feed on young shoots

Healthy tree

Phytophagous Phase (plant-feeding phase)

Egg laying

Bark beetles invade and transmit fungi

Mycophagous Phase (fungi-feeding phase)

Egg laying

Recently cut timber

Nematodes feed on fungi in dead wood

Nematodes are attracted to pupae before adult sawyer beetles emerge

Nematodes leave beetles and enter feeding wounds in twigs

Nematodes die in resistant hosts

Nematodes feed and multiply in resin canals of susceptible hosts

Pinewood nematode adult male with spicule (see arrow) at posterior end.

Adult Monochamus beetle.

Sawyer beetle larvae develop

Dying tree

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Forest Fire in YangYang area at arbor-day.

Forest burn: 430 ha and 246 houses.

Naksan Temple: built about 1300 years ago.

Bell: made about 600 years ago.
Foundation: 1972 in Incheon, Korea
5 domestic companies
6 in overseas: USA, Chile, China, Solomon Islands
2 representative offices: Indonesia, Malaysia

$Ea = 利 = $Beneficial$

$Gon = 建 = Construction, Building$

$EAGON = 利 建 = $Beneficial to Construction$

- Create a Beautiful Living Environment -
Vertically Integration in Wood Industry

Forest Genetics
- Seed selection
- Tree breeding
- Nursery
- Developing new hardwood species in Solomon Islands

Plantation
- Plantation carried out over 25,000 ha at New Georgia, in Solomon Islands under sustainable-yield management
- Annually about 100,000m³ is harvested at present, and this volume is expected to reach 500,000m³ by year 2012
- Main Species: Teak, Eucalyptus, Terminalia, Mahogany
Manufacturing
- Plywood
- Flooring, Windows, Doors, Furniture
- Various Building Materials
- Wood-Composite Deck

Recycling
- Pressed Wooden Pallet

Trading
- Plywood/Particle Board/MDF/OSB
- Building Materials, Sawn-Timber, Molding
- Logs (Hard and Soft Wood)
Geographical Location
155°E ~ 170°E, 5°S ~ 12°S
Plantation Area (New Georgia Island)

Nursery bed with local employee

Mahogany

Logs for export

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Products

- Logs from Solomon Islands (Sustainable Plantation)
- Plywood for concrete panel (Non-Formaldehyde)
- Phenol film faced Plywood
- Reusable Packing System
- Pallet made from recycled wood
- Wood-Plastic Composites
<table>
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<th>Lift Sliding</th>
<th>Lift Sliding 200</th>
<th>Lift Sliding &amp; Tilt 161</th>
<th>Turn &amp; Tilt</th>
<th>Awning</th>
<th>Casement</th>
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<tbody>
<tr>
<td>FACADE SK60</td>
<td>FACADE SK60V</td>
<td>FACADE SG50</td>
<td>FACADE FW50</td>
<td>FACADE Unit Curtainwall</td>
<td>FACADE Wood Curtainwall</td>
</tr>
</tbody>
</table>

- Lift Sliding: Window type with a horizontal sliding mechanism.
- Lift Sliding 200: Specific model of lift sliding windows.
- Lift Sliding & Tilt 161: Window type with both horizontal sliding and tilt mechanisms.
- Turn & Tilt: Window type with a mechanism that combines turning and tilting.
- Awning: Window type with an awning mechanism for shading.
- Casement: Window type with a casement mechanism for opening.

[Images of various types of windows and materials]
Eagon Foundation in Solomon Islands
Medical Support
Agricultural & technical Support

Scholarship Program
China, Solomon Islands, Chile

Cultural • Art Activities
Eagon Concert
Every year from 1990
Free performance to public

Other Activities within Community
Current Issues

✓ **Green Building Material**
  - High Quality & High Profit
  - Eco-Friendly Material
  - High Energy Efficient Material
  - Building Integrated Solar Panel
  - Recycled Material

✓ **FSC Certification in Solomon Islands**
✓ **New Plantation & Plywood Plant Investment: India & Vietnam**
✓ **US Housing Market: Chile Plywood Plant**
✓ **China Price**
Total Area : 6.6 acre
Construction Area : 5.2 acre
EAGON Butterfly (Deudorix Eagon)

Found by British entomologist, Dr. John Tennent in 1997 at Solomon Island
Green!
The New Color of Money.

Kyungtae Park
International Fellow, Korea
March 15, 2006
Project Background

Korean Green Building Materials Market

- Still small, but expected to grow rapidly.
- Everything is Green?
- Technical development & Quality competition.
- Prepare to enter emerging market.
Project Objectives

- Explore US green building materials
- Understand US and Korean wood markets and green building material markets
- Determine reasons why US consumers buy green building materials
- Determine what products, tech. and companies may be adaptable to the Korean market
- Review US standards laws and regulations
In US

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End of Documents

Thanks!