Contents

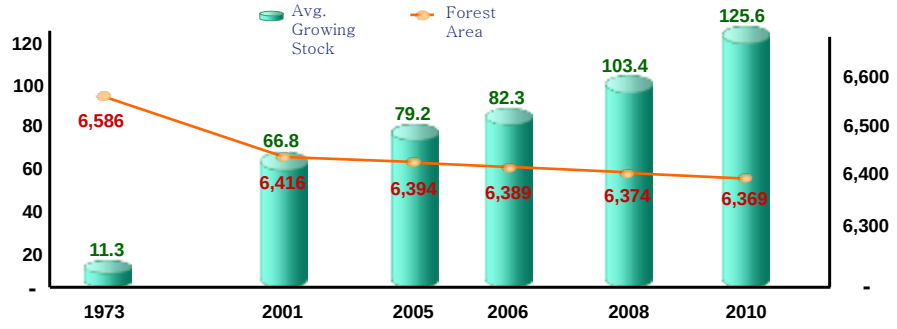
◈ korean land base

- ♠ Total land base : 10million (ha)
- ♠ Forest area : 6.4million (ha)
- ♠ Population : 49million people

Korea's Forest Resources

◈ Forest area & stock volume

- Forest covers 63.6%(6,368,843ha) of total land base of 10,003,308ha
  - National forest 24% , Public 8% , Private 68%
- Avg. stock volume reaches 125.6m^3 per hectare



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Korea's Forest Policy

◈ Overview of National Forest Plan

Forest Plan	Period	Main Features
1st and 2nd Plan Forest Rehabilitation Project	1973~1987	› Successful Rehabilitation › Planting Campaign › Fuel Forests › Resettle Villages
3rd Plan Forest Resources Development Project	1988~1997	› Mountain Villages › Non-marketable services › Plantation and Tending › Infrastructure
4th Plan Pursue Sustainable Forest Management	1998~2007	› Introduction of SFM to Framework Act › More focus on economic values › Legal and institutional regulations for the SFM system

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Korea's Forest Policy

◈ Changes in National Forest Plan

Forest restoration stage		• Creation of fuel forests • Erosion control projects, restoration of burned field
Forest revegetation stage		• Completion of revegetation • Beginning of forest management
Resource development stage		• Expansion of plantation species • Creation of commercial forests
Initial stage of sustainable management		• Introduction of ecological forestation • Intensive forest management

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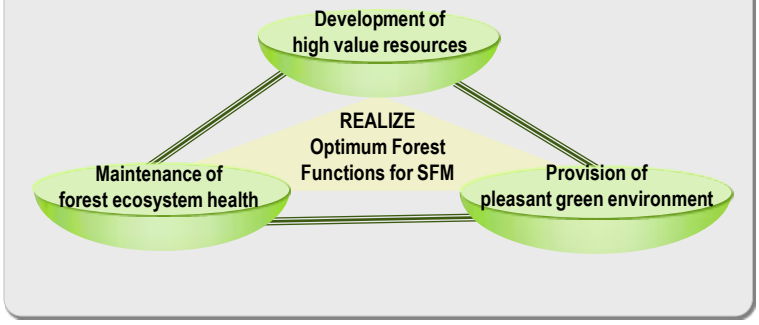
Korea's Forest Policy

◈ The 5th National Forest Plan : 2008-2017

Vision: Sustainable Green Welfare Nation
- leading nation in sustainable forest management -



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Korea's Progress for SFM

◈ Institutional changes in Korea

♣ **Law**

- **Forest Law(1994)**
  - SFM C&I the first put in the law
- **Forest Basic Act(2001)**
  - Stipulates the definition of SFM
  - Monitoring and assessment of C&I at the national and local levels
- **Forest Resources Management Act(2006)**
  - Implementation of National Forest Sustainability Index
- **Forestry & Mountain Villages Promotion Act(2011)**
  - Priority purchase of SFM produce

♣ **National Forest Survey**

- A rotational survey by region with a 10-year cycle since 1972 until 2005
- **The 6th national survey(2011-2015)**
  - a 5-year cycle, 4,000 permanent plots
  - targeted on FAO FRA, MP C&I, OECD Statistics

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Korea's Cases for Soil & Water

◈ Indicator 4a : Area and percentage of forest land (New 4.2b) with significant soil erosion

- The most serious type of erosion in mountain areas : gully erosion and mass movement of soil and rock (Figures 3. 22 and 3.23)

Figure 3.22 Soil erosion by landslide (2002, Gimhae, Gyeongnam Province)

Figure 3.23 Soil erosion after forest fire (2002, Gangneung, Gangwon Province)

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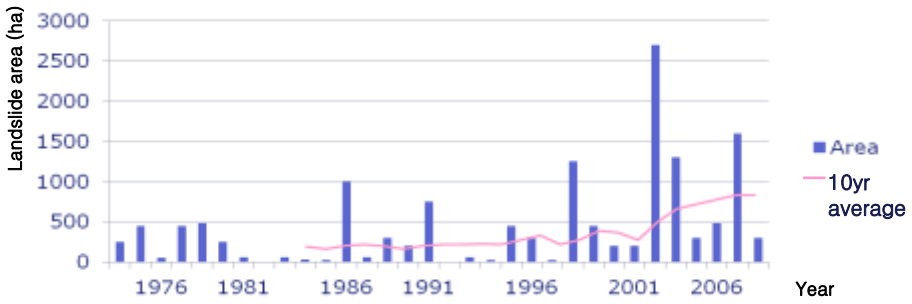
Korea's Cases for Soil & Water

- Landslides have increased due to frequent typhoon & heavy flood

Figure 3.24 Changes in area of landslides



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Korea's Cases for Soil & Water

◈ Indicator 4d : Forest area with significantly diminished soil organic matter and changes in other soil chemical properties

Table 3.15 Chemical properties of soil A layer by province (1984-1990, 2004, 2008)

Province	pH (1:5)			OM (%)			TN (%)		
	'84-'90	'04	'08	'84-'90	'04	'08	'84-'90	'04	'08
Gangwon	5.80	5.14	5.22	4.93	5.39	4.60	0.21	0.25	0.23
Gyeonggi	5.38	4.33	4.20	4.08	2.45	7.79	0.19	0.17	0.31
Chung C.	5.33	5.2	4.92	2.91	3.8	2.73	0.11	0.18	0.12
Jeolla	5.13	4.87	4.69	4.89	5.06	2.90	0.18	0.20	0.15
Gyeong S.	5.34	5.01	4.97	3.57	2.45	3.35	0.16	0.12	0.14
Jeju	5.30	5.94	5.94	10.40	11.87	11.87	0.43	0.52	0.52
Average	5.48	5.06	4.95	4.49	4.70	4.69	0.19	0.22	0.21

Korea's Cases for Soil & Water

◈ Indicator 4e : Area and percentage of forest land with significant compaction or change in soil physical properties resulting from human activities

- Main factors for soil physical changes : Road construction & Land use conversion

Table 3.18 Length of forest roads

(Unit : Km)

Year	National forest	Private forest	Total	Accumulated length
- 1975	160	0	160	160
1976-1980	65	0	65	225
1981-1985	42	204	246	471
1986-1990	560	1,550	2,110	2,581
1991-1995	2,192	4,363	6,555	9,136
1996-2000	921	4,736	5,657	14,793
2001-2005	87	945	1,032	77,364
2006	11	212	223	16,048
2007	0	219	219	16,267

Korea's Cases for Soil & Water

Table 3.19 Area of forest land conversion to other land uses

(Unit : ha)

Year	Total	Agriculture	Grazing	Residential	Recreational	Others
1999	6,083	1,285	528	3,368	181	721
2000	5,558	1,062	244	3,026	265	961
2001	6,021	776	231	3,391	506	1,117
2002	6,383	680	188	3,830	375	1,310
2003	5,751	590	229	3,622	375	935
2004	5,772	420	143	3,847	348	1,014
2005	6,528	630	202	3,443	592	1,661
2006	4,594	396	141	2,287	526	1,244
2007	6,812	711	139	3,927	726	1,309
Avg.	5,954	728(12%)	227(4%)	3,416(57%)	433(7%)	1,141

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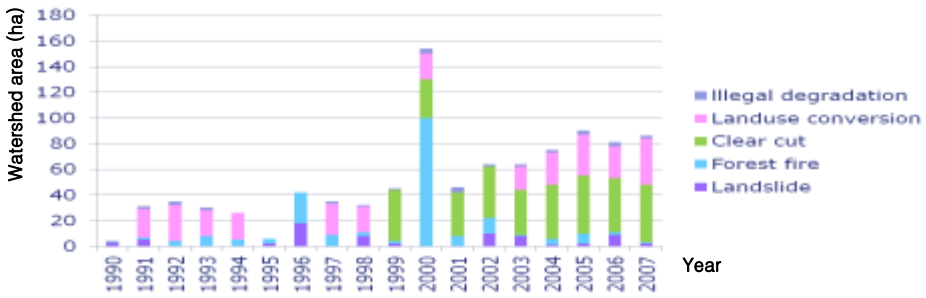
Korea's Cases for Soil & Water

◈ Indicator 4g : Percentage of water bodies in forest areas (New 4.3b) with significant variation from the historic range of variability in PH, dissolved oxygen, levels of chemicals, sedimentation, and temperature

Figure 3.25 Size of the watersheds with changes of chemical properties



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Korea's Cases for Soil & Water

◈ Indicator 4b : Protected forests (New 4.1a)

Forest Protected Areas

(Unit : ha)

Classifi-cation	Total	Disaster Prevention	Liverlihood Environment	Lands-cape	Watershed conservation				Forest Genetic Resources
					Sub-total	1st class	2nd class	3rd class	
'06	414,955	6,790	11	27,798	302,191	130,500	15,638	156,053	78,165
'07	413,617	6,284	11	24,596	292,472	123,036	14,458	154,978	90,254
'08	402,403	5,075	12	19,388	276,630	110,560	12,511	153,559	101,298
'09	411,905	5,863	12	19,811	274,369	108,659	11,734	153,976	111,850
'10	413,481	4,702	12	19,831	272,330	104,829	11,603	155,898	116,606

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Korea's Cases for Soil & Water

Table 3.21 Area of riparian buffers and water source protection zones

Year	Total(ha)	Water source protection zones			Riparian buffers (ha)
		No.	Area(ha)	Residents (person)	
1990	126,653	324	126,653	-	-
1995	120,100	383	120,100	130,038	-
2000	125,307	386	125,307	58,109	-
2004	226,144	357	124,692	52,243	101,452
2007	240,926	351	127,871	47,053	113,056

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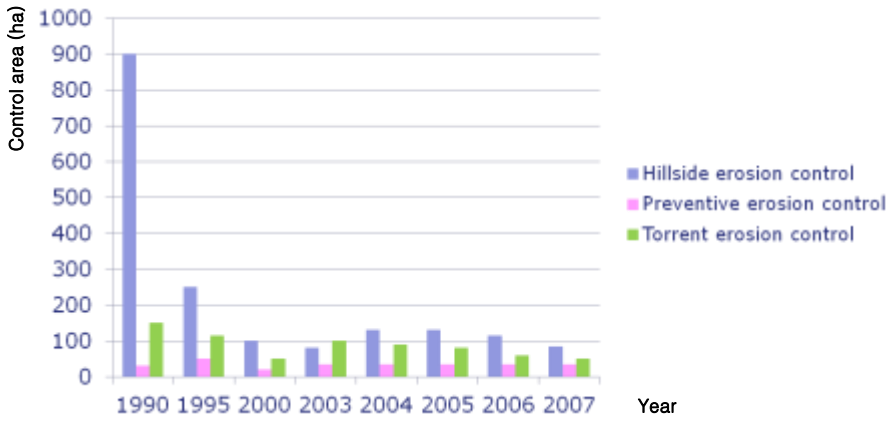
Korea's Cases for Soil & Water

Figure 3.27 Area of erosion control activities



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