

*Historical Change and
Significance regarding
the Management and Utilization
of Forest Resources in Korea*

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Forest Devastation



Hapchen, Kyongnam

Forest Devastation

Changes in non-tree area and devastated area by year

(1,000ha)

Year	Forest area	Non-tree area	Devastated area
1919	n.a	n.a	17.0
1933	n.a	n.a	205.5
1935	16,199	n.a	237.1
1946	n.a	n.a	412.0
1953	6,415.4	n.a	607.0
1956	6,691.8	n.a	686.2
1960	6,700.9	n.a	524.4
1965	6,613.6	1,244.2	120.8
1970	6,611.5	859.7	89.9
1975	6,575.4	646.9	70.0
1980	6,567.8	241.3	34.0
1985	6,531.1	244.4	5.3
1987	6,499.1	184.4	1.2

Source) Forestry Administration(1989)



Causes of Forest Devastation

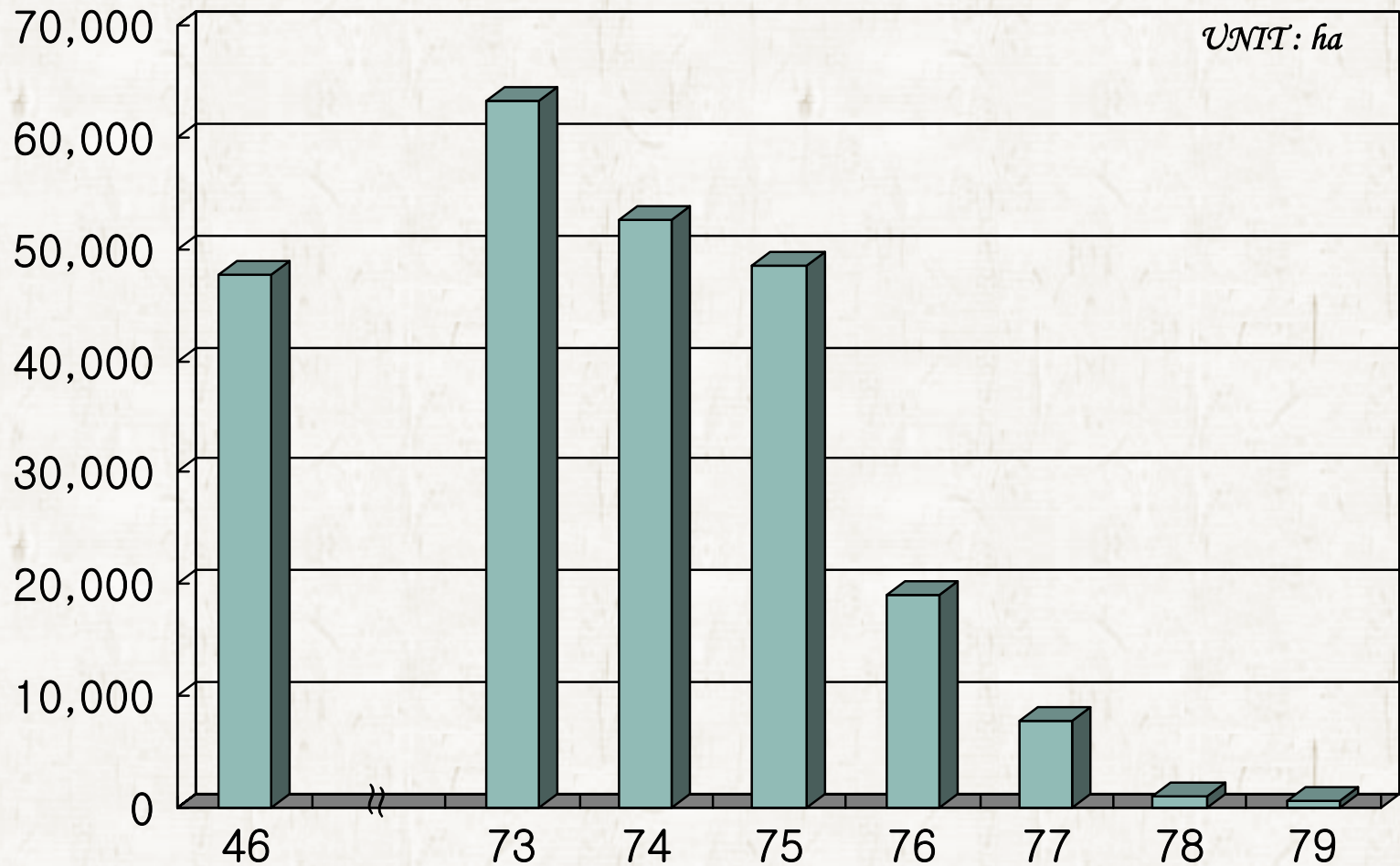
- *Illegal cutting*
- *Slash-and-burning Agriculture*
- *Sources of Fuel*



Illegal cutting

- *Social instability*
- *Introduction of timber marking system*
- *Establishment of checkpoint for illegal timber carrying*
- *Prevention of entering into forest*

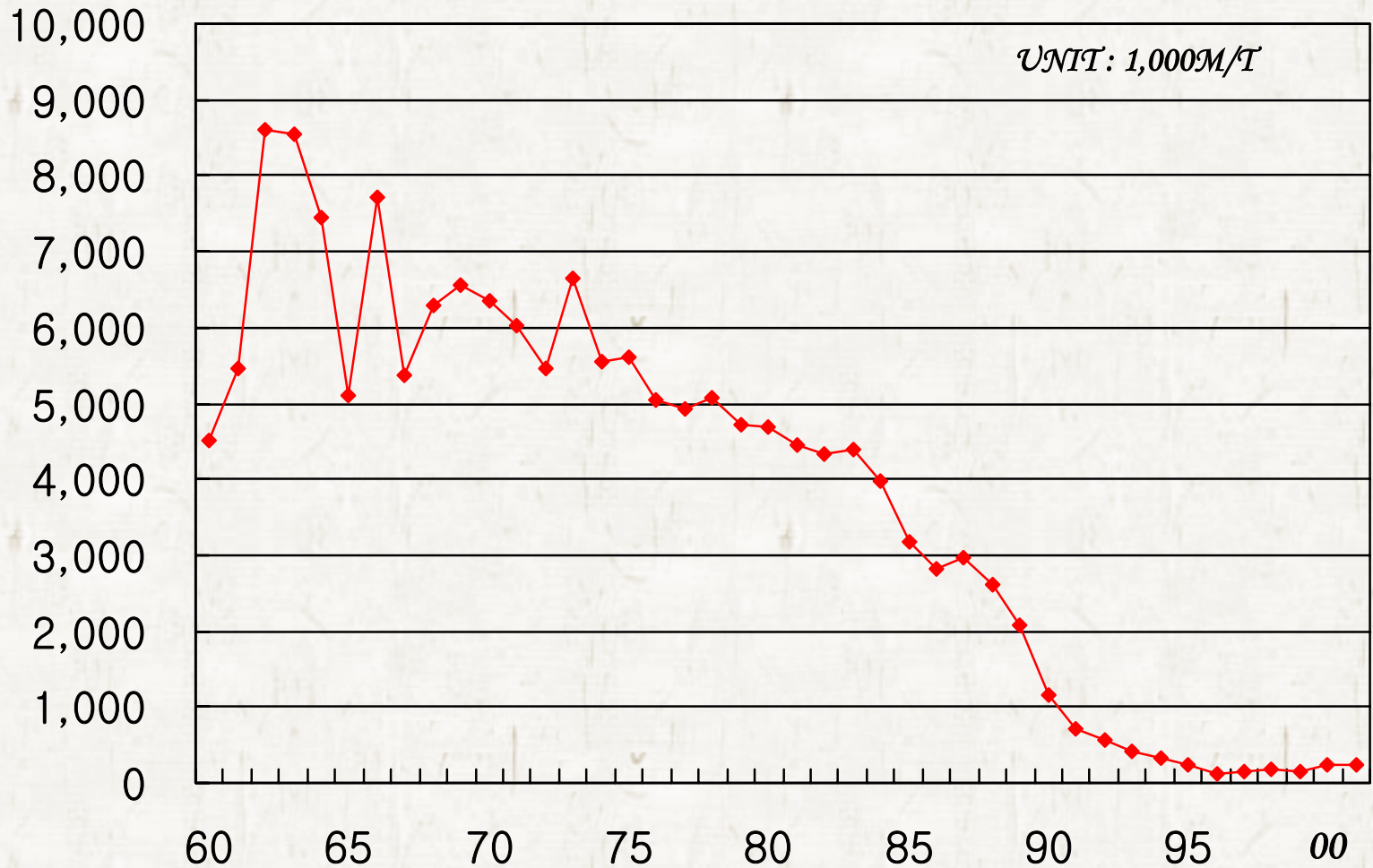
Slash-and-burning Agriculture



Source) Forestry Administration(1989)

Sources of Fuel

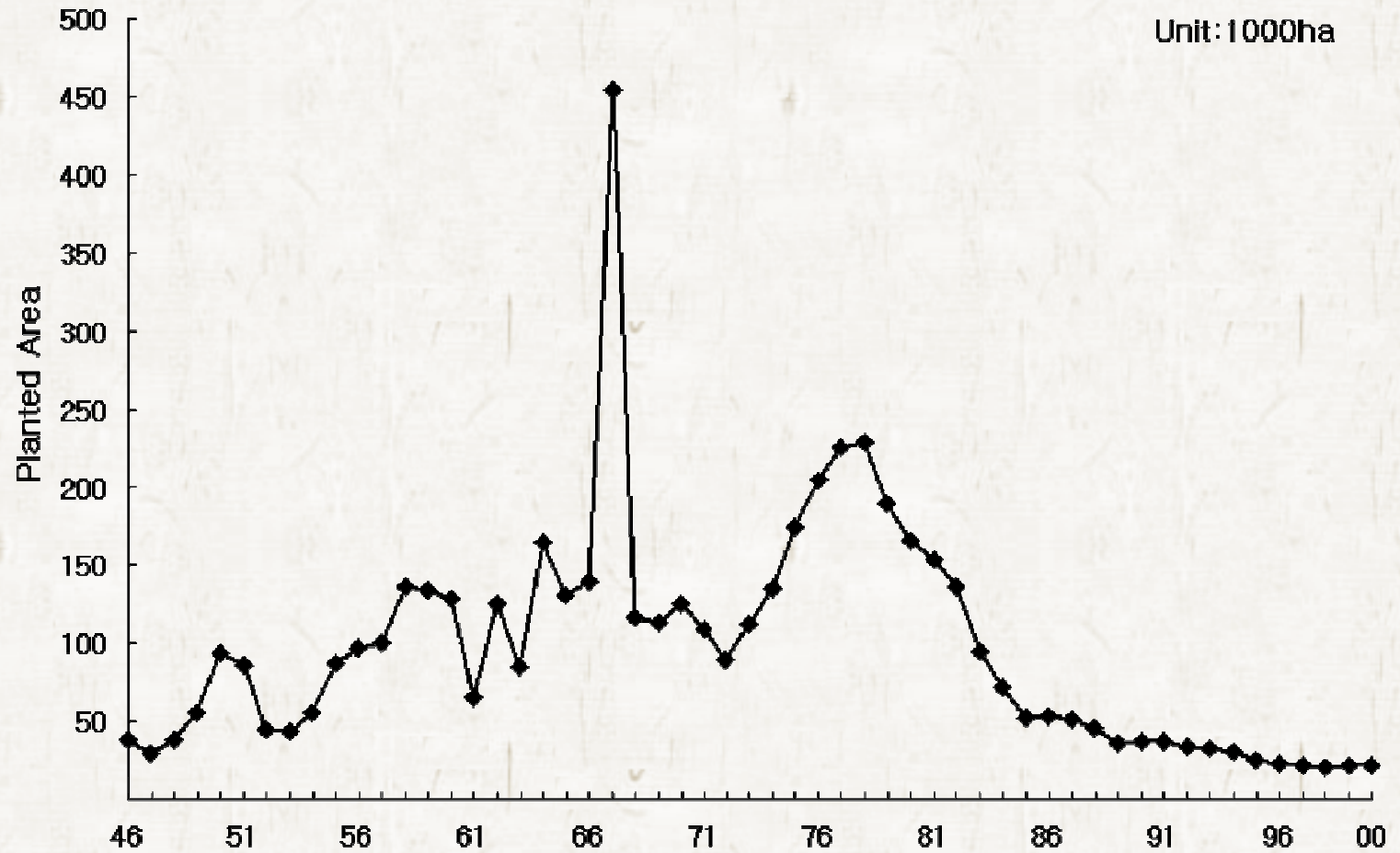
◆ Consumption trends of firewood



Source) Statistics Yearbook of Forestry (Forestry Administration)

Forestation Process

◆ Changes in Forestation area



Source) Statistics Yearbook of Forestry (Forestry Administration)



Forestation Process

- *Forest Administration was transferred into the Ministry of Home Affairs*
- *Establishment of Erosion Control and Forestation Ten-Year Plan*
- *Extentation of rapid-growing trees*
- *Completed in short period*



Success Factors of Forestation

- *Decrease in the dependence on forest owing to economic growth*
- *Strict administration system*
- *National participation*



Decrease in the dependence on forest owing to economic growth

- *Economic development plan and high economic growth*
- *Firewood consumption*
 - *To prohibit to carry firewood into urban area*
 - *To establish firewood forests*
 - *To encourage the saving of fuel consumption*
- *Domestic timber production*
 - *Cement and PVC*
 - *To cut domestic timber within 15% of annual growth*



Strict administration system

- *Compulsory Forest Management Plan*
 - *To practice according to the plan*
 - *If owner does not, forest owner's union does instead of*
- *Reforestation within 3 years*
- *Illegal cutting considered as special robbery*
- *Director of local administration agency has responsibility for forest fire*



National participation

- *Forestation linked to New Community Movement*
- *Voluntary participation in tree plantation*



Meanings of Forestation

- *Prototype of environmentally conserving economic development model*
- *Consensust that devastation of forest causes destruction of environment functions of forest*

Management of Forest Resources

◆ Valuation of forest public benefit functions

UNIT: 1,000 million won

Function	Valuation				
	1987	1990	1992	1995	2000
Total(A)	176,560	233,700	276,100	346,110	499,510
Gross product of forestry(B)	6,921	7,314	8,252	9,798	17,268
A/B (%)	25.5	32.0	33.5	35.3	28.9
GNP(C)	1,060,240	1,714,880	2,299,385	3,482,843	5,170,966
A/C (%)	16.7	13.6	12.0	10.0	9.7
Recreation	59,970	42,660	35,480	44,880	48,300
Air purification	45,790	47,780	83,797	72,280	135,350
Water conservation	30,400	83,660	79,318	99,300	132,990
Soil outflow prevention	34,730	45,950	57,630	64,000	100,560
Soil collapse prevention	3,080	4,090	14,664	16,630	26,360
Wildlife protection	2,590	9,560	5,211	7,790	7,680
Water still	-	-	-	41,230	48,270

Source) Korea Forest Research Institute

Management of Forest Resources

◆ Results of forest management public work project

UNIT: 1,000 million won

Classification		Total	1998	1999	2000	2001	2002
Budget	Central Administrations(A)	18,383	2,083	7,000	5,300	2,500	1,500
	Forestry Administration(B)	5,804	549	1,766	1,589	1,200	700
	%(B/A)	32	26	25	30	48	47
Employment(1,000persons)		15,544	1,486	4,833	4,299	3,220	1,706
Area(1,000ha)		737	43	130	117	95	52

Source) Forestry Administration (2002)

Forest management public work project



Utilization of forest resources

● *Non-timber forest products*

◆ *Production percentages of forest products by year*

UNIT: %

Products	1975	1980	1985	1990	1995	2000
Total	100	100	100	100	100	100
Timber	13.3	8.2	6.5	8.6	6.9	5.3
Nut	5.5	10.7	9.1	20.6	30.2	19.2
Mushroom	3.0	3.8	5.4	8.8	9.3	9.9
Medicinal plant	0.5	0.4	0.5	1.4	1.4	0.6
Wild vegetable	0.3	0.2	0.7	3.5	7.0	9.9
Others	77.5	76.8	77.7	57.1	45.2	55.2

Non-timber forest products



Chestnut



Pine Mushroom

Non-timber forest products



Sap production



Non-timber forest products



Cultivated wild Ginseng

Utilization of forest resources

● *Tourism income*

◆ *Number of Recreation Forests and visitors*

UNIT: 1,000 persons

Year	1990	1995	2000
Number	13	52	83
Visitors	-	2,079	3,798

Tourism income



Recreation Forest

Tourism income



Mountain Village Development



Conclusion

Based on the case of Korea, it is required to make people recognize progressively environmental services, benefits for health, and tourism opportunities provided by forest as well as to introduce the multiple-use forestry system to provide various goods and services from forest. And this will make considerable contribution for the efficient management of forest resources and as the income source of the residents in mountain village.