

학문 후속세대를 위한 산림정책 동향과 대응

남부지방산림청

산림경영과장 이용권, Ph. D.

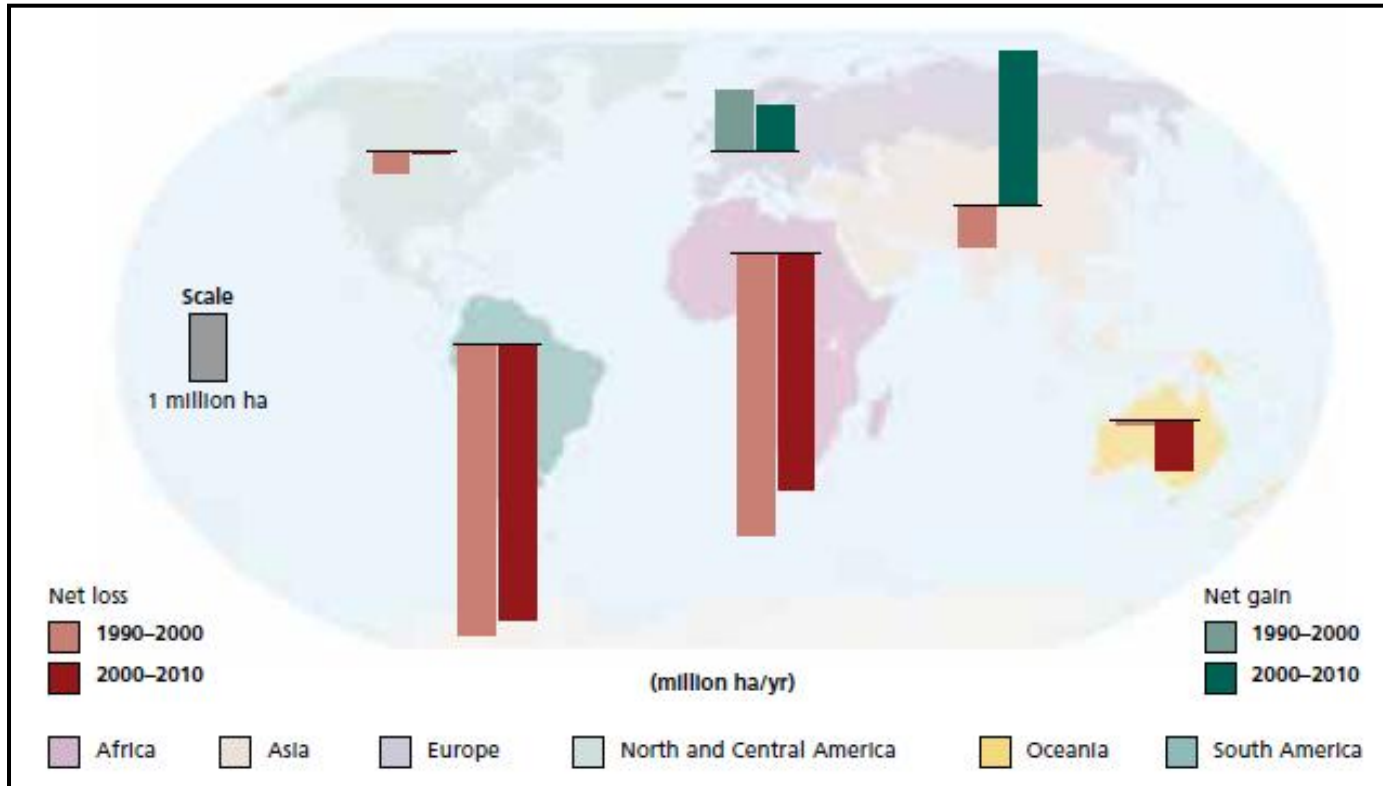


1. Challenging Forestry Issues
2. Korea's Forests
3. Strengthening Science and Policy Interaction



1. Challenging Forestry Issues

Annual change in forest area by region, 1990 – 2010



The world's **total net loss of forest area**
5.2 million ha/year in the period 2000 – 2010
8.3 million ha/year in the period 1990 – 2000

Source: FAO. Global Forest Resources Assessment 2010

Water

2000 : Available water amount : 1,488 m³/person in Korea

Korea : Water-short country (1,000 – 2,000 m³/person)

*Source : Population Action International (PAI)

• 2025 : Half of total population in deficiency of water resources (WRI)

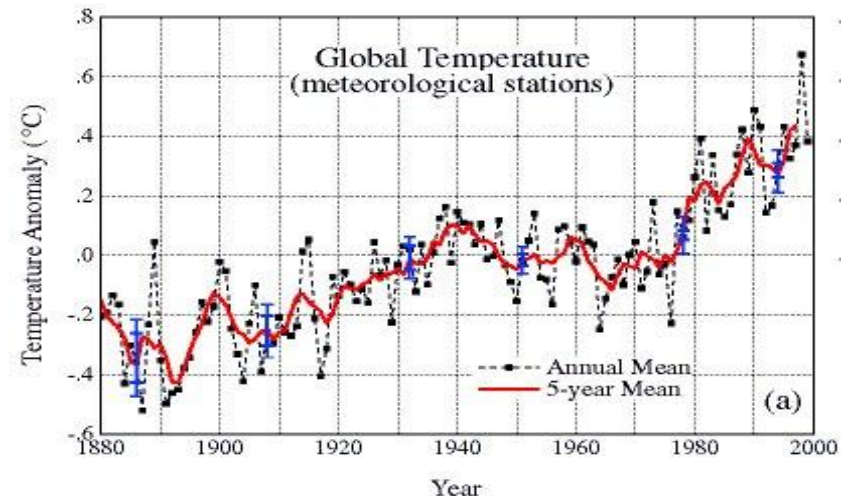
Global warming

Sources of CO₂ emission

CO ₂ Sources	Flux (GtC/yr)
Fossil-fuel burning	5.5
Tropical Deforestation	1.6
Total anthropogenic emissions	7.1

*Source: The Intergovernmental Panel on Climate Change (IPCC), 1995

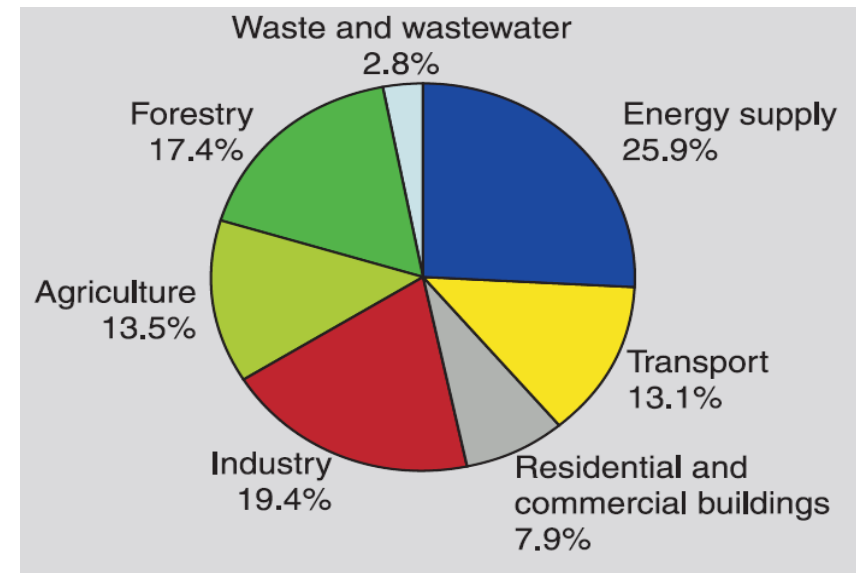
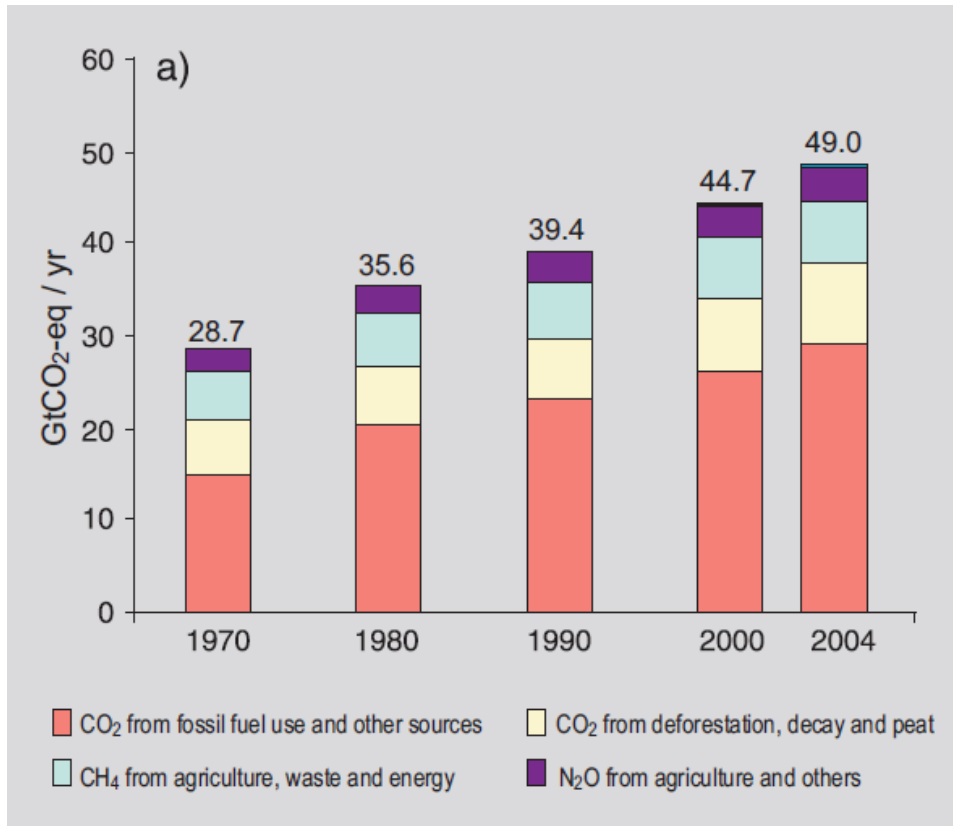
Change of Global Temperature



*Source: NASA Goddard Institute

- The average temperature of biosphere in 1990 increased about 0.5°C higher than that in 1900

Global Anthropogenic GHG Emissions



*Source: The Intergovernmental Panel on Climate Change (IPCC). 2007. Synthesis Report

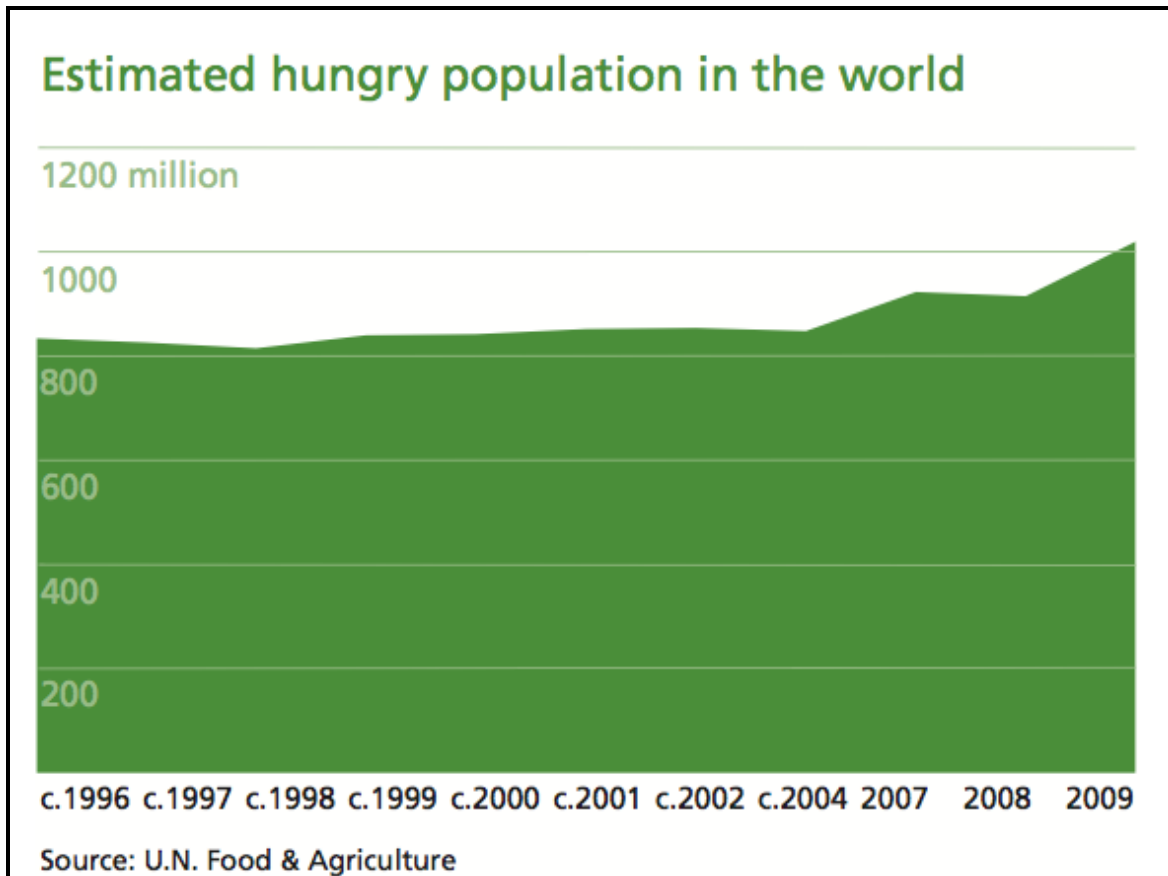
CO₂ emissions increased by 80%

1970 – 21 Gt/year

2004 – 38 Gt/year

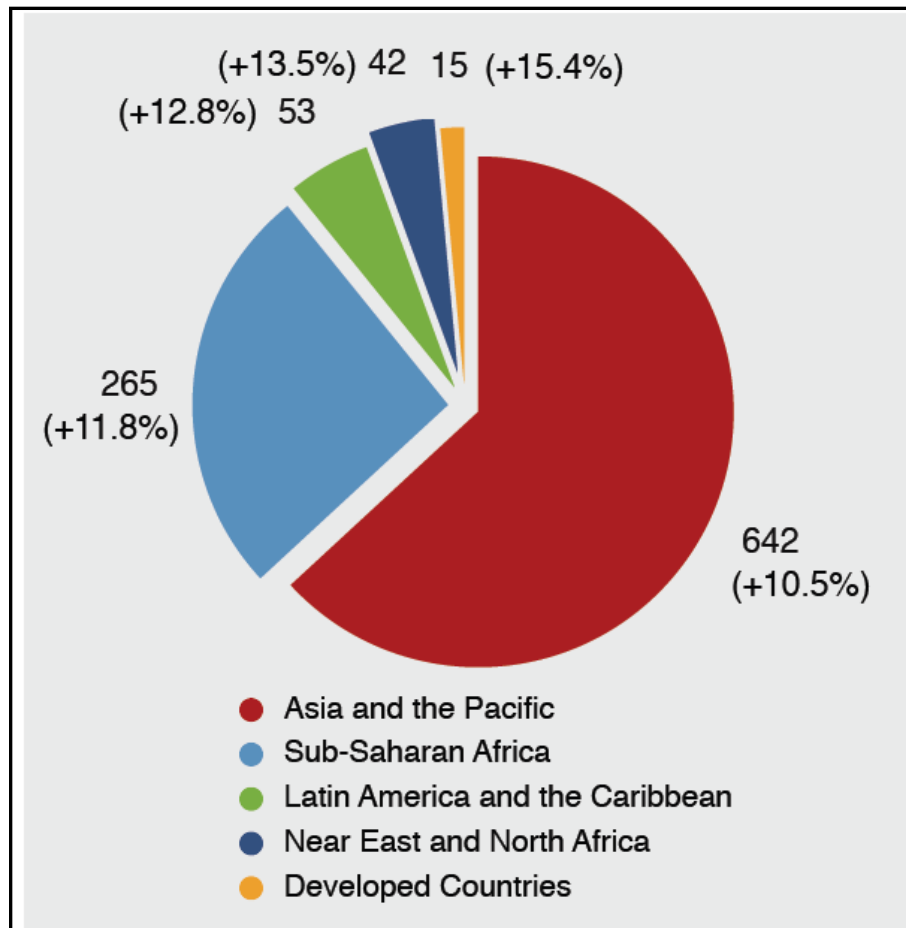
Food Insecurity

- 1985 – 1995: **Population increase: 1.6%**
- 1990 – 1997: **Grain production increase: 1.0%**



1950 : 0.23 ha/person
1996 : 0.12 ha/person
2030 : 8 billion (est. population)
→ 0.08 ha/person

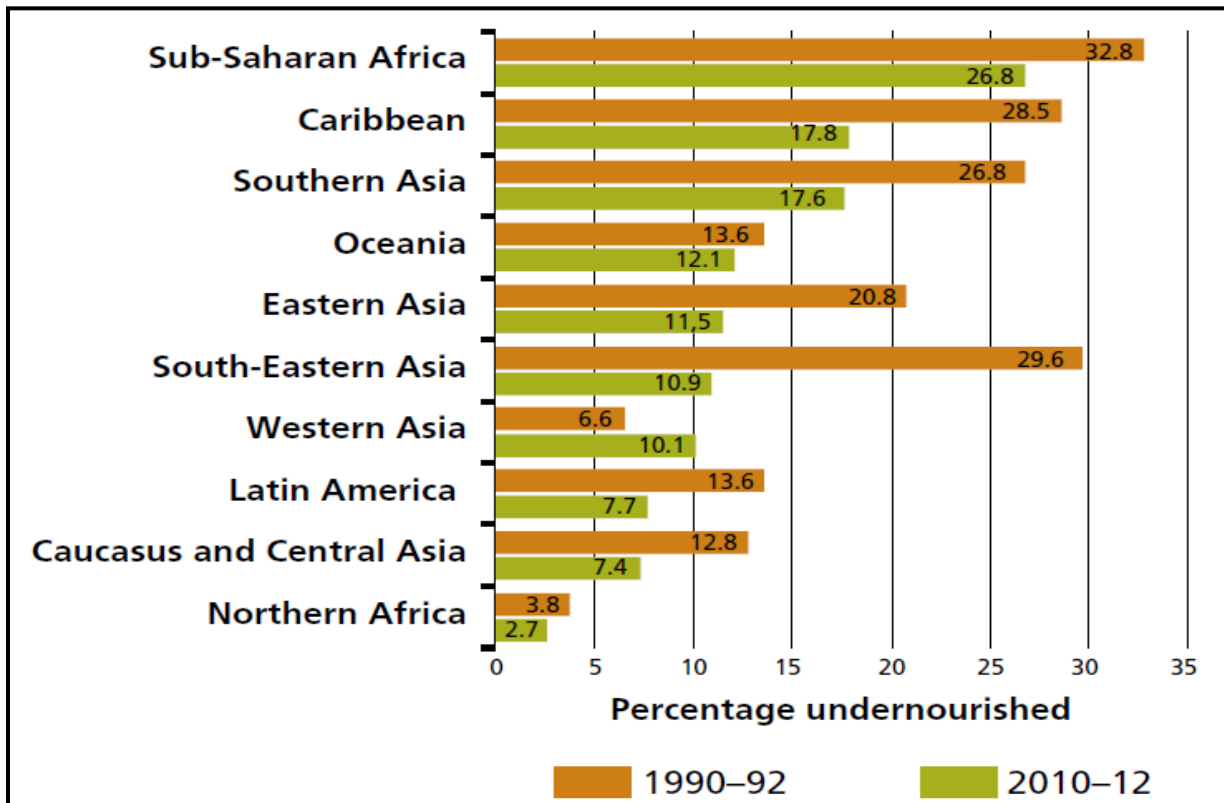
Estimated Regional Distribution of Hunger in 2009 (in million) and Increase from 2008 (in %)



1.02 billion people (1/6 of world's population)

Source: FAO. 2009. More people than ever are victims of hunger.

Progress towards meeting MDG Target

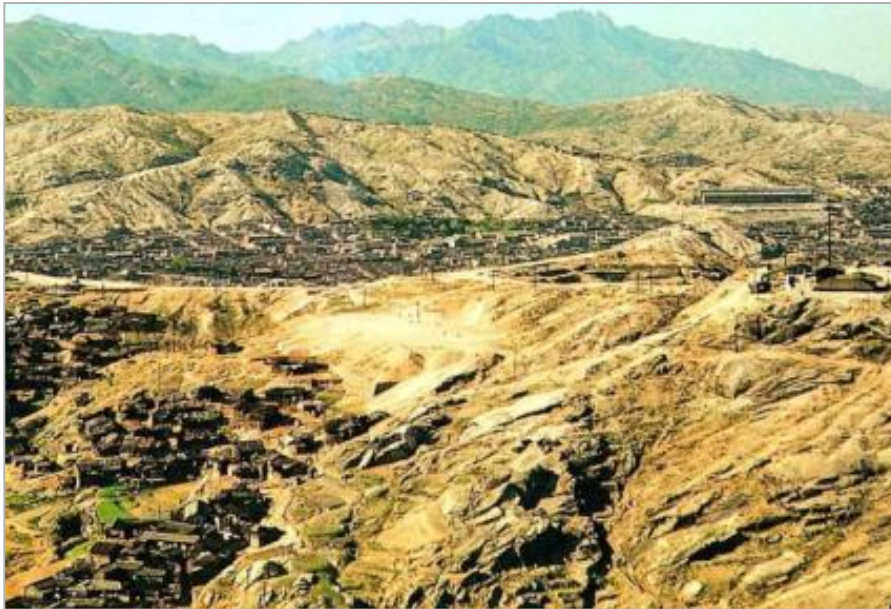


Source: FAO. 2010. The State of Food Insecurity in the World

2010 – 2012: 870 million undernourished
12.5% of world's population (1 in 8 people)

MDG target – halving undernourishment in developing world by 2015

*** Seongbuk-dong area, Seoul, Republic of Korea in the 1950s and present*



PAST

GNI per capita in 1953= USD 67
Population density = 222 people/km
Growing stock per ha = 6m³



PRESENT

GNI per capita in 2010 = USD 20,000
Population density = 485 people/km²
Growing stock per ha = 126m³

History of Reforestation in Korea

We planted 12 billion trees in degraded areas from 1962 !!!

1960s

Korea Forest Service (1967)
Fuelwood plantation, Erosion control

**1970s~
1980s**

1st & 2nd Afforestation (1973~87)
Project to stop illegal field burning cultivators,
Plantation of species for erosion control

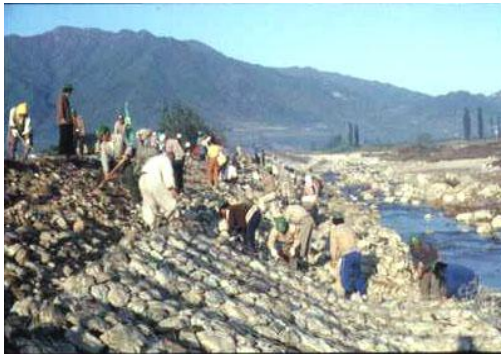
1990s

Resource recycle of afforested land
Policies for mountain village and
forest recreation

2000~

Sustainable Forest Management (SFM)
Green Growth, Climate change policies





Saemaul Undong

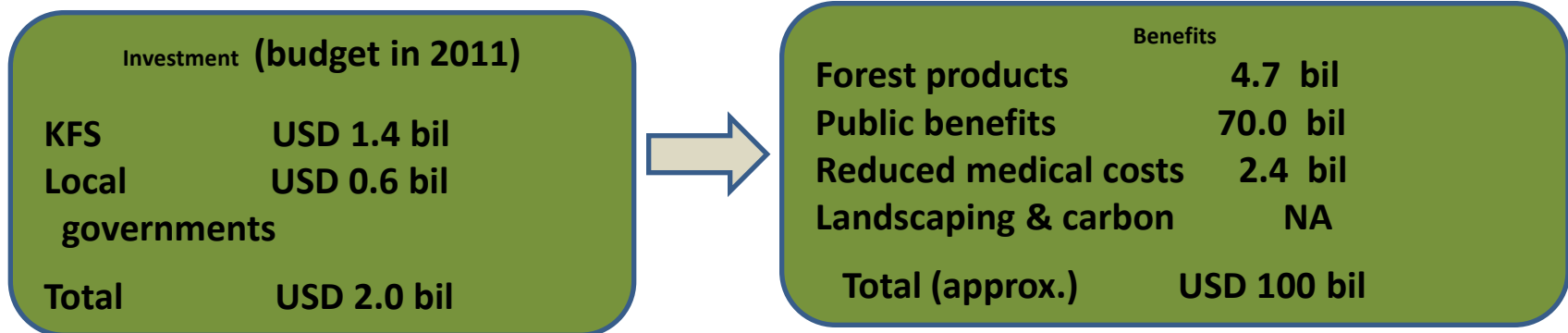
- Initiated in 1971
- Three slogans: diligence, self-help and cooperation
- Factors promoted by SU:
 - ① Educational factor (human resources capacity building developed)
 - ② Environmental factor (environment improved)
 - ③ Social factor (income increase emphasized)
 - ④ Creative power of human being (more dynamic society built)

Change in the way of thinking

- CAN DO, WILL DO, MUST DO spirit
- NEED-virus: hungry for food, learning, clean leadership, etc.)

Providing economic foundation for local communities

- Investing a budget of USD 2.0 bil (nurture, protection, utilization) creates an economic value of USD 100 bil



* One 30-year-old pine tree for landscape values approximately USD 500
Pine tree with high aesthetic value: over USD 1 mil

♣ How can the Korean Government invest for the increasing value of forest?

- ① Preparation of the land → restoration, SFM, watershed management
- ② Protection and conservation → combating forest fire, Baekdu-Daegan Conservation Area
- ③ R&D in forestry → renewable energy, BT, ET
- ④ Incubating → forest recreation, forest education, etc.

Forests as health assets → healing forest, recreation village

- 30 mil mountain hikers, USD 2.4 bil/yr reduced for medical expenses
- 77% of people undergoing long-term healthcare prefer to stay in healing forest (7 healing forests are available)

New possibilities with natural substances & bio-energy

- 2,104 species among 4,597 species of forest plants are edible or medicinally useful

Adding value of forest resources using bio-technology



Illicium anisatum - Tamiflu



Hovenia dulcis – Healthy liver



Taxus cuspidata – Anti-cancer



Ginkgo biloba – Blood circulation

From cradle to grave... life with forests

Prenatal

Prenatal care

15 places until 2012



Early childhood

Kindergarten

60 places until 2012



Adolescent

Camping in forests

200 places until 2012



Adult and Middle Age

Recreational forests

10 places for leisure
157 places for recreation



Third Age

Therapy forests

12 places until 2012



Death

Tree burial forests

36 burial grounds



2. Korea's Forests

Organization Chart of Korea Forest Service

◦ 소속기관



정원 : 1,742명(본청 265, 소속기관 1,477)

청장

2. Korea's Forests

Missions of Korea Forest Service



조림, 숲가꾸기를 통한 산림자원 육성,
목재는 자원으로 이용



임업기계 및 임도 등 산림 경영기반 구축



산사태 예방을 위한 사방사업, 신속한 산불진화,
산림병해충 특별관리 등 대응



산림생물다양성 유지·증진

2. Korea's Forests

Missions of Korea Forest Service



온 국민이 찾고 싶은
자연휴양림('12년 11백만명 이상이 방문)



숲이 놀이터인 '유아숲체험원'과
몸과 마음을 건강하게 하는 '치유의 숲' 조성 확대



산악레포츠 활성화



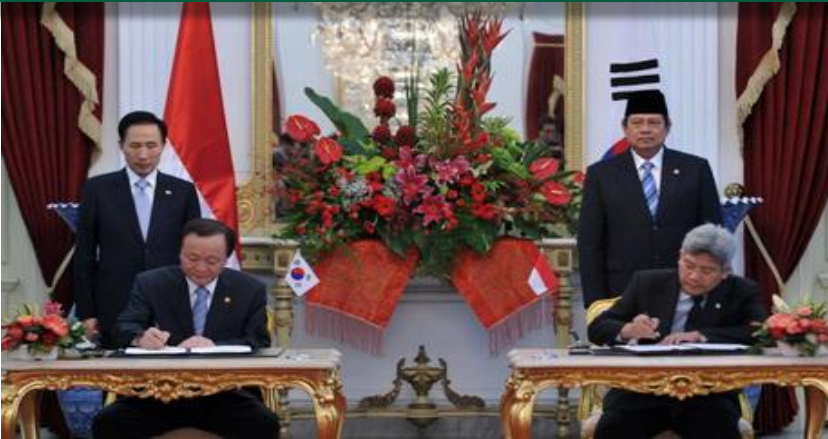
도시숲, 가로수, 학교숲 조성



수목장림 확대

2. Korea's Forests

Missions of Korea Forest Service



해외조림으로 목재자원 확보, 기후변화 대응



파라과이 유칼리투스 조림 후 8년



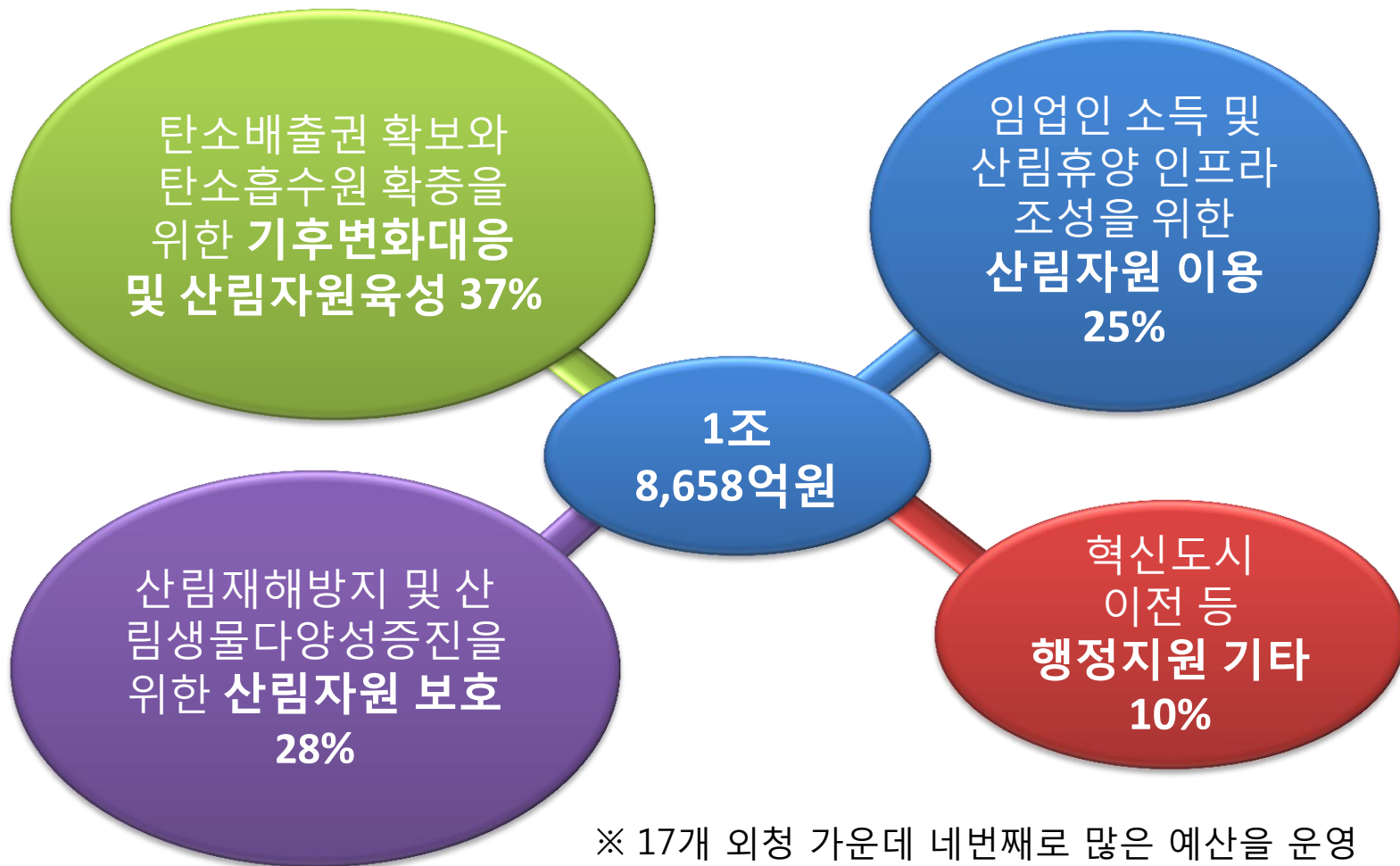
유엔 3대 환경협약(기후변화, 생물다양성, 사막화방지) 대응



북한지역 황폐산림을 복구하기 위한
종자확보 및 양묘장 지정·운영

Budget of Korea Forest Service

'13년도 예산은 1조 8,658억원, '12년 1조 7,951억원 대비 3.9%(707억원) 증가



총 18개 법률을 제정·운영

- 2012. 5. 23 → 목재의 지속가능한 이용에 관한 법률
- 2012. 2. 22 → 탄소흡수원 유지 및 증진에 관한 법률
- 2011. 7. 25 → 산림교육의 활성화에 관한 법률
- 2011. 4. 4 → 민간인 통제선 이북지역의 산지관리에 관한 특별법
- 2009. 6. 9 → 산림보호법
- 2007. 8. 3 → 산림조합의 구조 개선에 관한 법률
- 2005. 8. 4 → 산림자원의 조성 및 관리에 관한 법률
- 2005. 8. 4 → 국유림의 경영 및 관리에 관한 법률
- 2005. 8. 4 → 산림문화·휴양에 관한 법률
- 2005. 5.31 → 소나무재선충병 방제특별법
- 2003.12.31 → 백두대간 보호에 관한 법률
- 2002.12.30 → 산지관리법
- 2001. 5.24 → 산림기본법
- 2001. 3.28 → 수목원 조성 및 진흥에 관한 법률
- 1997. 4.10 → 임업 및 산촌 진흥촉진에 관한 법률
- 1980. 1. 4 → 산림조합법
- 1963. 2. 9 → 청원산림보호직원 배치에 관한 법률
- 1962. 1.15 → 사방사업법

※ 17개 외청 가운데 세번째로 많은 법률을 제정·운영



국제기구(FAO 등)

녹색사업단

한국임업진흥원

산림조합

국립자연휴양림관리소

5개 지방산림청

산림사업법인

국립산림품종관리센터

산림청
(11개 소속 기관)

산림항공본부

지자체

국립산림과학원

산림교육원

대학, 기업

국립수목원

역할 및 인원

- 역할 : 공유림 경영 관리와 사유림 경영 지원
- 인원 : 4,500명

시·도 산림부서 현황('12년도 기준)

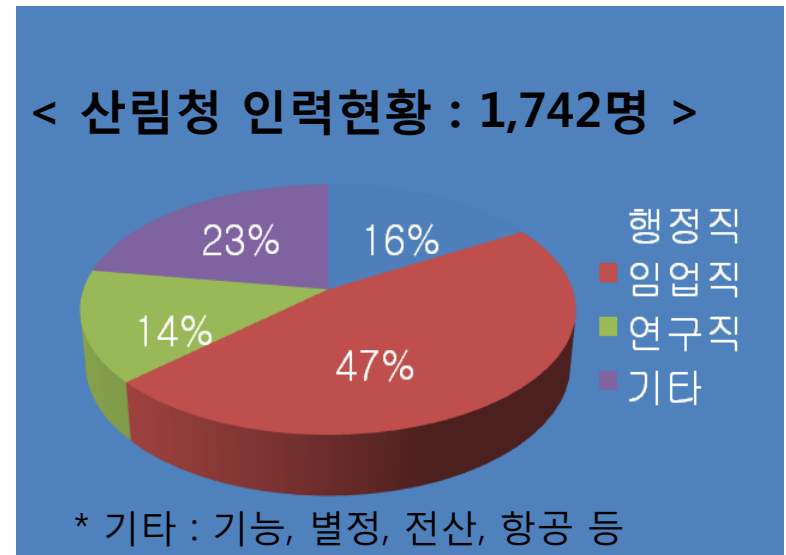
- 17개 광역자치단체에 산림과(또는 산림녹지과, 공원녹지과 등) 설치·운영
- 각 도별로 산림·임업연구 기관인 산림환경연구소 운영

시·군 산림부서 현황('12년도 기준)

- 229개 기초자치단체 중 146개(64%)에 산림전담부서 설치·운영
- * 행정시(제주시, 서귀포시) 포함

산림청 본청과 소속기관에 근무하는 공무원을 매년 55여명 선발

5급	매년 3명 정도
7급	매년 8명 정도
9급	매년 30명 정도 (공채, 특채)
연구사	결원상황에 따라 채용 ('12:14명, '11:28명, '10:5명)



지자체 공무원은 지자체별로 모집(매년 135여명)

Regional Offices of Korea Forest Service

5개 지방산림청 (27개 관리소, 714명 / 1,397천ha)



서울, 경기, 강원 일부
435천ha

북부지방산림청



중부지방산림청

충남 공주, 부여
충북 충주, 보은, 단양 등
115천ha



서부지방산림청

전북 남원, 정읍, 무주
전남 영암, 순천 등
199천ha



강원 강릉, 양양, 평창 등
377천ha

동부지방산림청



경북 안동, 영주, 양산 등
271천ha

남부지방산림청

국외 훈련 : 학위과정(국외 유명대학), 직무과정(관련기관에서 근무)

○ 파견기간 : 2년 ○ 비 용 : 국가에서 전액부담

○ 매년 3~4명이 선발되어 파견

※ 현재 7명 파견 중이며, 2013년 3명 파견 예정임

주재관 파견(인도네시아 대사관 1등 서기관) : 1명

직무파견(몽골) : 1명, 국제기구 고용 휴직(FAO, UNCCD 등) : 8명



인도네시아
대사관 1명
산림부 1명
한·인니 산림협력센터 2명



몽골
자연환경부 1명



FAO(이탈리아) 1명



UNCCD(독일) 1명
UNCCD(태국) 1명



AFoCO(한국) 2명

Changes in educational curricula

- Biodiversity, Desertification, Climate change (Carbon sequestration), Water and soil pollution, Ecosystem management including humans, Forest sustainability, Non-timber forest products, and Recreation



Producing experts through field practices

to produce forestry experts with high quality and specialized skills

Capacity building of human resources

e.g. tree doctor, information and networking
exploring new medicines from plants
FAO, CIFOR, World Bank, etc.



International education programme

- Active support program on the study of forests to improve education
- Tapping foreign experts on a particular field for the improvement of the programs etc.
- Recruit/exchange foreign students
- Contribution of trained students in forestry-related institutes and industries



Investing on research and development

- UN Eco-Peace Leadership Training Center: need for education in developing countries
- Need for providing extensive network in doing research and activities related to the rehabilitation and management of forests.

Partnership and networking

Collaborative partnership and networking among universities, institutes, government, industries and private companies



Korea's International Partnership

➤ IUFRO (International Union of Forest Research Organizations)

- Website: <http://www.iufro.org>

The screenshot shows the IUFRO website homepage. At the top left is the IUFRO logo, a stylized leaf. To its right is the text "International Union of Forest Research Organizations". Below this is a navigation bar with links: "DISCOVER IUFRO", "SCIENCE IN IUFRO", "WHO IS WHO", "EVENTS", "PUBLICATIONS", "REGIONS", and "MEMBERSHIP". On the right side of the header, there are links for "SITEMAP" and "CONTACT", and a search box with the text "Search term" and a "GO" button. Below the navigation bar is a "Welcome to IUFRO" section. To the right of this section is a "LOGIN" form with fields for "Email address" and "PASSWORD FORGOTTEN?", and a "REGISTER NOW" button. Below the login form is a "LATEST NEWS" section with three news items: "2006-04-25 IUFRO-IPGRI Summary Report now available!", "2006-04-03 IUFRO News 3/2006 If you are interested in UNFF, IUFRO publications and meetings, read the latest issue of IUFRO News!", and "2006-03-23 Seminar on Strengthening Science-Policy Interface Implementation of MCPFE commitments with the support of research and knowledge transfer." Below the news section is a "SCIENCE IN IUFRO" section with three sub-sections: "DIVISIONS", "TASK FORCES", and "SPECIAL PROJECTS & PROGRAMMES". Each sub-section has a small graphic and an "ENTER >>" button. At the bottom of the page, there is a footer with the text "© 2005, 2006 IUFRO - Legal" and "Design, CMS, Programming plan2net TYPO3".

IUFRO
International Union of Forest Research Organizations

Explore fast >

> DISCOVER IUFRO > SCIENCE IN IUFRO > WHO IS WHO > EVENTS > PUBLICATIONS > REGIONS > MEMBERSHIP

WELCOME TO IUFRO

IUFRO is a non-profit, non-governmental international network of forest scientists. Its objective is to promote international cooperation in forestry and forest products research. [More about IUFRO](#)

IUFRO World Congress 2005

The XXII IUFRO World Congress was held in Brisbane, Australia, 8 - 13 August 2005.

Read the Congress Resolutions and other post-Congress information [here](#).

Global Forest Information Service

GFIS is an Internet gateway to forest information resources from around the world. Users can locate maps, datasets, web resources, journal articles, books and other resources relevant to their forest information needs.

[More](#) | [Visit GFIS](#)

SCIENCE IN IUFRO

DIVISIONS TASK FORCES SPECIAL PROJECTS & PROGRAMMES

SILVAVOC WFSE SPDO

ENTER >> ENTER >> ENTER >>

LOGIN REGISTER NOW
Email address PASSWORD FORGOTTEN?
LOGIN

LATEST NEWS

2006-04-25
[IUFRO-IPGRI](#)
Summary Report now available!

2006-04-03
[IUFRO News 3/2006](#)
If you are interested in UNFF, IUFRO publications and meetings, read the latest issue of IUFRO News!

2006-03-23
[Seminar on Strengthening Science-Policy Interface](#)
Implementation of MCPFE commitments with the support of research and knowledge transfer.

2006-03-16
[IUFRO Noticeboard](#)
New courses, meetings and position announcements

[News Archive](#)
[RSS Newsfeed](#) RSS 2.0

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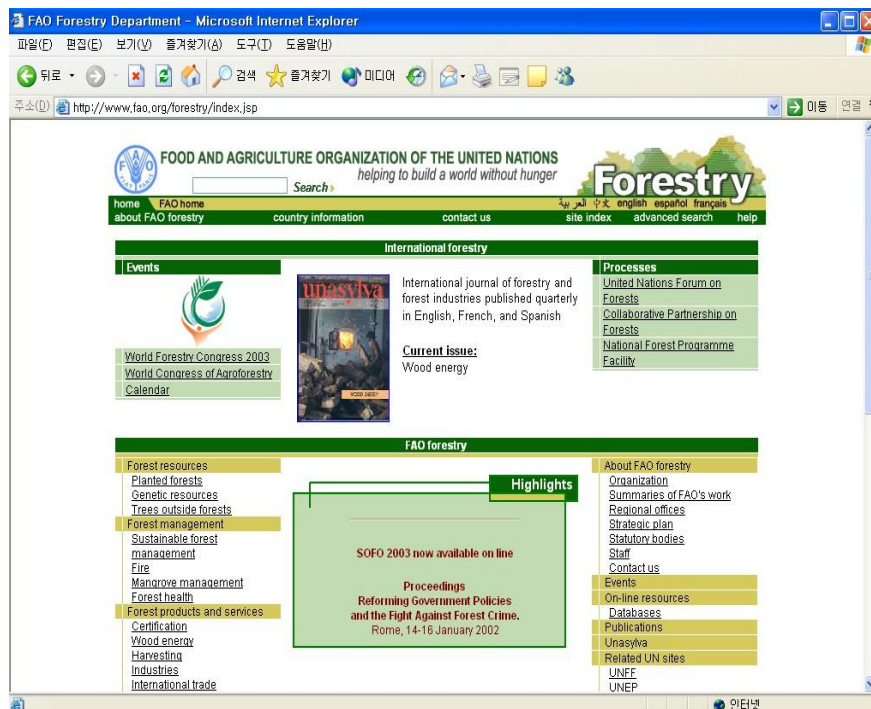
3. Strengthening Science and Policy Interaction at Regional/ International Level

Korea's International Partnership

➤ FAO

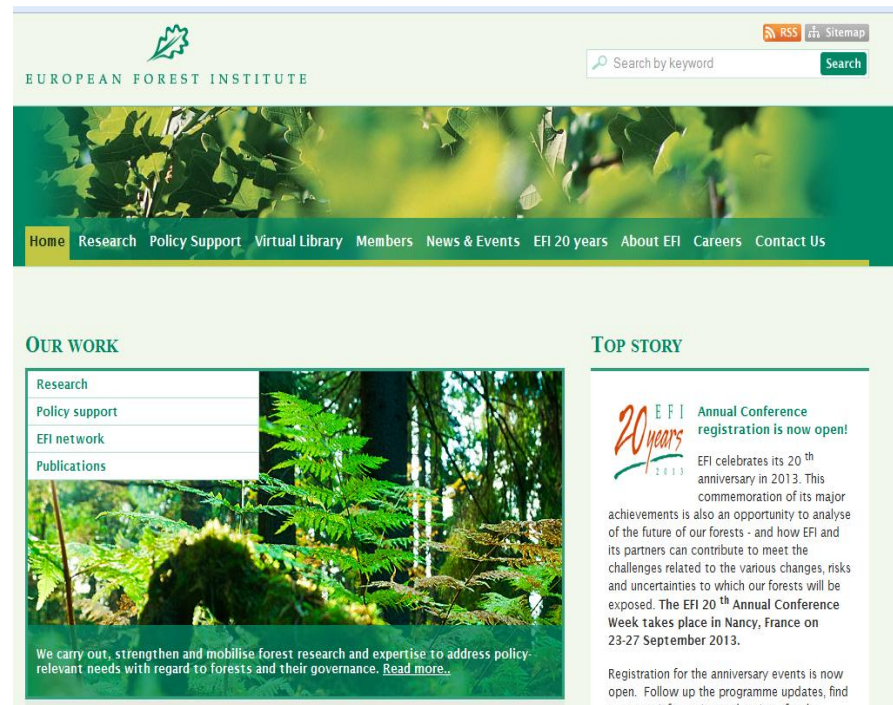
FAO-Forestry

<http://www.fao.org/forestry>



➤ EFI

<http://www.efi.int/portal/>



3. Strengthening Science and Policy Interaction at Regional/ International Level

Korea's International Partnership

➤ Asian Forest Cooperation Organization (AFoCO)

<http://www.afocosec.org/index.jsp>

AFoCO
한-아세안 산림협력협정
ASEAN-Korea Forest Cooperation

Special ASEAN-ROK
on Forest

Promising Greener Asia

HOME About Cooperation Activities Events Media and Resource Center

News [more >>](#)

[RECRUITMENT] Internship Programme
Internship Programme - Job Title : Internship Trainee- Office : ASEAN-Korea Forest Cooperaton (AFoCO) Secretariat- Duty Station : SEOUL, KOREA *Notes*Pleas find the attachment and ...


The 1st Meeting of the Working Group for the establishment of...
The 1st Meeting of the Working Group for the establishment of Asian Forest Cooperation Organization (AFoCO) ...

- 2nd Session of Governing Council
- Inception Meeting on implementation of the Agreement on ASEAN-ROK Forest Cooperation
- Operation of ASEAN-Korea Forest Cooperation Secretariat
- Laos now on board

Upcoming Activities

01 OCT: 3rd Working Group for ...
01 SEP: 3rd Governing Council ... [more >>](#)

Publications

 • **Title** ASEAN-Korea Forest Cooper...
• **Publish Date** 04-12

Meeting Document

UN Convention to Combat Desertification (UNCCD)

The Changwon Initiative

Objective

To complement The Strategy through target-setting and the consolidation of effective partnerships, in order to enhance the implementation of the UNCCD

Scientific Process toward Target-Setting

- Agreement on Specific Target-Setting
- Refinement of Impact Indicators for Monitoring and Assessing DLDD Processes
- Support AHTEG on Scientific Advise

Mobilizing additional resources and Facilitating partnership arrangements

- Partnership Arrangement
 - Support NAP alignment process
 - DSS prevention/mitigation
 - SLM synergistic activities
 - S-S and N-S cooperation
- Engagement of Private Sector

Land for Life Award

- Encourage SLM – related actions and practices
- Operated by multi-stakeholder partnership

선배들의 이야기 1

-대구대 92학번, 이종문(7급) / 남부지방산림청 산림경영과, dawaa2@forest.go.kr-

취업 전(학업생활)

○ 졸업전

- 대학 3년때 취업진로 선택(빠를수록 좋음) → 전공과목 수업 집중(3학년부터)
※ **산림관련 자격증 취득(희소성이 높은 자격증 취득시 취업 유리:12가지)**
- 방학기간을 활용하여 산림관련 공공기관 및 지자체 인턴(일용근무) 지원 또는 산림기술사 및 엔지니어링, 산림법인체에 단기간 근무(알바)

산림업종 근무의 간접경험, 산림현장 근무능력 향상, 인맥확대

☞ 간접경험을 통한 진로 판단, 취업후 원활한 직장 및 업무추진의 밑거름

○ 졸업 후

- 자격증 취득 필수, 각종 시험 및 채용정보 취득 등
- 공무원 : 공개채용보다는 **특별채용시험** 집중
- 취업준비시 조바심은 금물 ⇒ 일정기간을 정하여 꾸준히 계획적으로 준비

취업 후(직장생활)

- 주어진 업무 최선 ⇒ 근무경력 5년이후부터 제일 자신 있는 분야 1~2개 선정
- 본인이 가지고 있는 장점을 최대한 부각 ⇒ IT(컴퓨터), 기획, 외국어, 발표력 등
- 처음 근무지 선정시 선배나 인맥이 있는 지역이나 주변에 근무지 선정
⇒ 원활한 직장(사회)생활을 위한 가교역할 필요 ⇒ 단기간 정착 가능

면접 경험

- 1997년 2월 동기 여학생 5명과 산림청 특채에 응시하여 면접
 - 면접관의 질문 : “여성으로 힘든 임업직 공무원이 될 수 있겠는가?”
 - ☞ “왜 못하겠느냐! 여자는 남자와 비교하면 체력은 뒤 처져도, 나는 ‘깡’으로 극복할 수 있다” 이렇게 대답 ⇒ 최종 2명 합격

취업 후(직장생활)

- 한글 문서작성과 엑셀은 기본이며, 스마트화되어 GIS, GPS는 조림, 숲가꾸기, 임도, 산불 등 협업에 모두 활용하고 있음
 - ※ 제가 학교 다닐 때 한 사람은 풀대를 잡고 다른 사람은 평판측량을 실습했는데 이제는 GPS 장비로 1인 혼자서 수행
- 문서작성은 단순 자판치는 것이 아니라 보고서를 깔끔, 간단, 명료하게 작성, 보고

**보편적인 것에서 남들과 차별이 되려면
한번 부딪쳐 보고자 하는 도전의식과 자신감,
그리고 학교 실습을 통해 현장 경험과 지식을 갖는 것 !!**

감사합니다
Thank you!



<http://www.forest.go.kr>