

**Multi-Stakeholder Partnership for Environmental Leadership Development towards a Low-Carbon Society:**

*Centred on higher education cases in Republic of Korea*

27 June, 2009

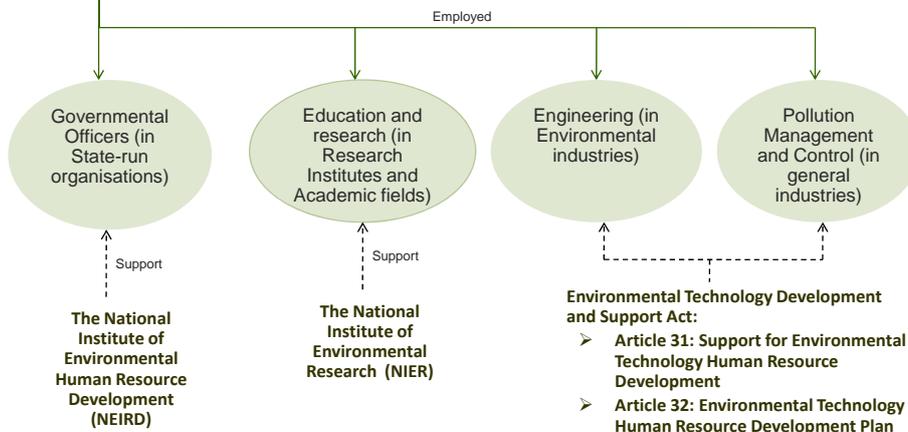
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**Environmental Human Resource Development Mechanism**

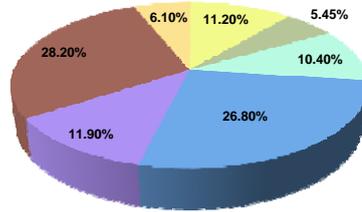
**Qualified environmental leaders**

- Who can strategically plan environmental conservation
- Who can lead restoration of environment damaged by pollution
- Who can manage environmental issues with specific knowledge/skills



Based on a presentation by Mr. H. M Kim from Contech Cooperation at Forum on Environmental Human Resource Development in 2003

## Statistical Status of Universities and Colleges in ROK



- Art & Physical Education
- Medical Science & Pharmacy
- Natural Science
- Engineering
- Humanities
- Social Science
- Education

(Unit: Person)

Classification	Institution	Humanities	Social Science	Education	Engineering	Natural Science	Medical Science & Pharmacy	Art & Physical Education
Grand Total	Total	389,510	920,418	197,248	874,877	338,139	175,842	366,101
	National	121,351	163,871	102,439	206,360	123,400	24,966	33,984
	Public	3,014	12,186	508	19,026	4,947	683	4,563
	Private	285,145	744,361	94,301	649,491	209,792	150,193	327,554
University	Total	253,873	566,938	83,938	512,682	236,367	66,323	199,383
	National	36,220	79,604	24,515	134,313	81,656	9,642	20,199
	Public	1,882	8,122	-	7,863	3,077	-	1,368
	Private	215,771	479,212	59,423	370,506	151,634	56,681	177,816
Univ. of Education	National	-	-	25,834	-	-	-	-
	Total	8,941	43,043	774	79,913	16,980	2,121	18,090
Industrial University	National	3,829	10,283	136	51,213	12,378	372	5,657
	Private	5,112	32,760	638	28,700	4,602	1,749	12,433
Polytechnic College	-	-	51	-	265	-	-	-

N.B.: Based on 152 College courses, 220 Under-graduate courses and 36 Graduate courses in 2007

Provided by Ministry of Education, Science and Technology: <http://english.mest.go.kr/main.jsp?idx=0401030201>

## Major Environmental Subjects in Undergraduate Courses



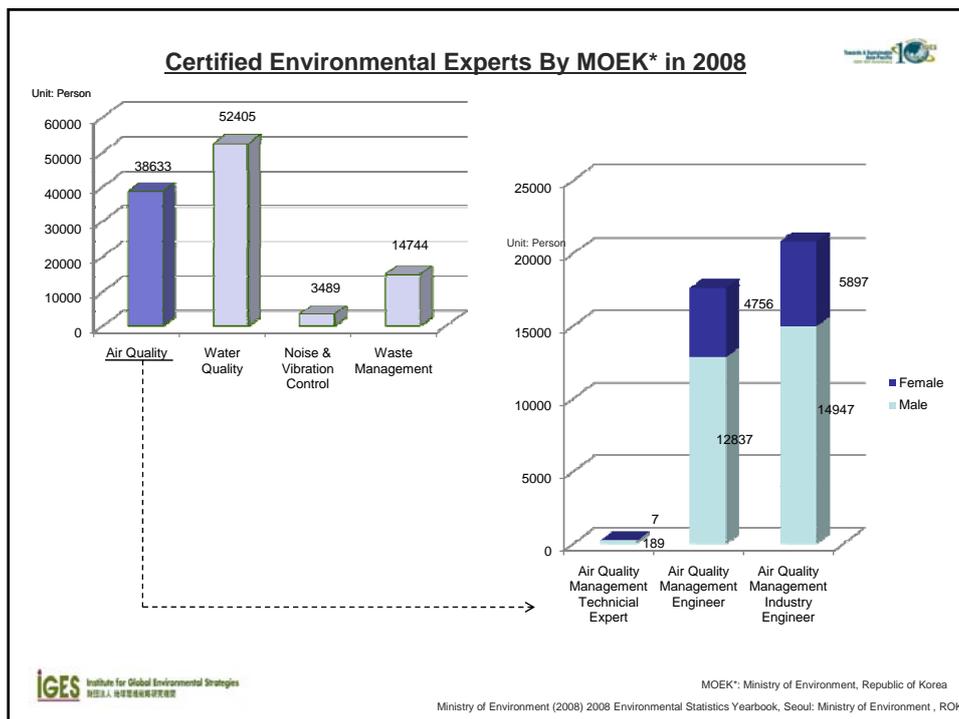
(Unit: Subject/Credit)

	NMS*	Eco./Microbiology	Water pollution	Air pollution	Wastes	Noise & Vibration	Soil	EIA**	Others	Total
Kangwon Uni.	4/42	-	7/21	4/12	4/12	1/3	-	1/3	1/3	22/66
Kunkuk Uni.	2/6	2/6	5/15	6/18	6/18	1/3	-	1/3	6/18	29/87
Donggeui Uni.	9/22	2/6	8/24	4/12	2/6	2/6	1/3	1/2	14/36	43/117
Pukyong Uni.	5/15	3/9	5/15	6/18	3/9	-	-	1/3	8/23	31/92
The Uni. of Seoul	7/21	2/6	8/24	5/15	7/21	2/6	1/3	2/6	15/45	49/147
Suwon Uni.	2/6	2/6	5/15	5/15	6/18	1/3	1/3	2/6	15/45	39/117
Anyang Uni.	7/21	2/6	8/24	5/15	4/12	-	1/3	1/3	7/21	35/105
Inha Uni.	4/12	2/4	5/15	3/9	3/9	1/3	-	1/3	6/12	25/67
Chungbuk Uni.	6/18	2/6	4/12	6/18	7/21	1/3	-	1/3	7/21	34/102
Hankyung Uni.	6/18	-	5/15	7/20	9/23	1/3	1/3	1/2	15/41	45/125
Hanbat Uni.	13/31	2/6	5/15	7/13	6/18	1/3	-	-	15/40	49/126

NMS\*: Non-major subjects e.g. overviews of law, Chemistry, Physics, Statistics and Biology

EIA\*\*: Environmental Impact Assessment

Park J. S. and M. C. Lee (2003) A Study of Curriculum Development for Environmental Studies in Universities, Table 7



## University-Government Cooperative Project = Specialised Postgraduate Programmes on Climate Change =

- ❑ **Background**
  - To educate climate change experts
  - To support specialised research in higher education to address climate change
- ❑ **Support Details**
  - Postgraduate programmes' scholarships (including tuition fees and research funds)
  - For five years (which can be extended by 10 years based on evaluation results)
  - 15,000,000 Won (approximately 11,466,000 JPY) per each research theme
- ❑ **Ten Universities Designated by Korean Ministry of Environment (Present in June 2009)**

Designated Date	Specialised Programme	University
March 2006	GHG Mitigation	Keimyung University
March 2006	GHG Environmental Impact Assessment & Adaptation	Korea University
March 2006	GHG Emission Statistics	Seoul University
June 2008	Climate Change Industry Management Strategy	Aju University
June 2008	CO2 Market & International Negotiation	Jungang University
April 2009	GHG Mitigation Management Strategy	Kyungsoong University
April 2009	Climate Change Industry Management Strategy	Seoul National University of Technology
April 2009	Climate Change Impact Evaluation and Monitoring	Ewha University
April 2009	CO2 Market & International Negotiation	Chonam University
April 2009	GHG Emission Statistics	Hallyim University

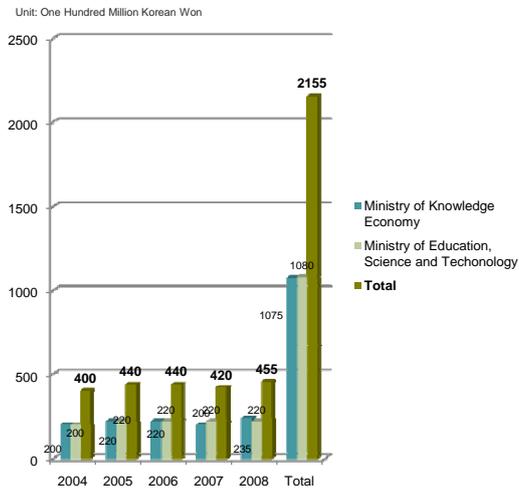
**IGES** Institute for Global Environmental Strategies  
国際環境戦略総合研究所

Informed by Ministry of Environment, ROK in June 2009

## University-Industry-Government Cooperative Project



- For human resource development in order to respond to future requests of industry including demands for qualified environmental experts;
- To support R & D centres in universities in cooperation with industries
- For five years (Sep. 2004 – Aug. 2008)
- Sponsored by 1) Ministry of Knowledge Economy; and 2) Ministry of Education, Science and Technology



## University-Industry-Community Cooperative Network for a Low-Carbon Society

= Korean Association for Green Campus Initiative =

- ❑ **Established:** November 2008
- ❑ **Joined by:** 28 Korean universities across the country
- ❑ **Background**
  - Called for universities' responsibilities for contributing to achieving a low-carbon society in cooperation with local environment
- ❑ **Goals**
  - To address the urgent environmental problems world-wide regarding climate change and energy issues
  - To respond to the social requests for sustainable campuses within a holistic plan including campus energy consumption, environment and education issues.
  - To promote the "Green Campus Initiative" led by a network of universities.
  - To suggest a new paradigm to achieve Low-Carbon Green Growth for sustainable economic development.



## Multi-Stakeholders' Cooperative Programmes on Climate Change

- ❑ **Programme Title:** Climate Change and Green Growth
- ❑ **Background**
  - To educate environmental policy-decision makers on the necessity of national actions to address climate change issues, and;
  - To support governmental officers develop capacity to deal with Low-Carbon Green Growth policy establishment and its implementation.
- ❑ **Education Courses**
  - Foundational theories on Green Growth
  - National vision for Low-Carbon Green Growth policy and strategy
  - Climate change policy for Low-Carbon Green Growth
  - Sustainable transportation strategy
  - Land management and policy for Green Growth
- ❑ **Education fees**
  - Self-financial support programme
  - 75,000 Won (6,392 JPY)
- ❑ **Run by**
  - National Institute of Environmental Human Resource Development (NIEHRD)

## Remaining Challenges for Building a Multi-Stakeholder Partnership for Environmental Leadership Development towards a Low-Carbon Society

- ❑ **Regarding University Curriculum:**
  - Many areas are not well-enough developed to address climate change, for instance some subjects are not up-to-date and lack depth;
  - Curriculum structures are not flexible to respond promptly to the demands of environmental industry & governments for environmental experts/leaders.
  - Majority of subjects are based on traditional environmental resource management centred on water pollution, air quality and wastes, thus they do not easily incorporate holistic issues regarding sustainability.
  - More practical experiences such as internships in industry, governmental organisations and community agencies need to be counted as university credits.
  - Training programmes/job site-centred courses are needed to provide practical knowledge/skills to deal with climate change issues in actual working fields.
- ❑ **To Strengthen a Multi-Stakeholder Partnership**
  - The gap between university practice and the urgent demands of industry & government needs to be addressed to deal with climate change issues.
  - Further policy support to strengthen a cooperative system between university and industry for human resources development is urgently needed as qualified experts/leaders are one of the keys in climate change implementation.
  - Government provision of a professional data base to support multi-stakeholder partnership for climate change policy and its implementation.



*Thank you for your time*

For Further Information & Contact

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