

# Curriculum Vitae

**Daehyun Ko**

**PhD in Environmental Engineering Program**

**ID # 60020603**

**Ministry of Environment, Republic of Korea**

Task Force for Investigation and Assessment for Natural Recovery of Four Major Rivers

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## Skill Summary

With more than 12 years of experience in initiating and implementing environmental policies and regulations, ranging from initiating Integrated Water Management (IWM) system to resource conservation, I have built expertise in various fields in environment. Combined with my education background in civil and urban engineering and strong track of research experience in the field of waste water treatment, I believe I present unique skillsets to bring valuable insights into water management and related areas. In the near future, I hope to further my knowledge in the area of water management and its implementation in different parts of the world, including developing nations.

## Education

<b>Seoul National University</b>	1999.03-
Course Completion of Ph.D.	2001.02
Department of Civil Engineering, major in Urban Engineering (GPA of 3.77/4.3)	
Field of specialization: Biological nitrogen removal in the wastewater treatment	
<b>Seoul National University</b>	1997.03-
Master of Science in Engineering	1999.02
Department of Civil Engineering, major in Urban Engineering (GPA of 3.61/4.3)	
<i>Thesis: Advanced Wastewater Treatment by Application of a Humus Soil Contactor</i>	
Field of specialization: Biological nitrogen removal in the wastewater treatment	
<b>Seoul National University</b>	1993.03-
Bachelor of Science in Engineering	1997.02
Department of Civil Engineering, major in Urban Engineering (GPA of 3.26/4.3)	

## Awards/Fellowships

- **2018 the Korean Government Fellowship for Overseas Study** (financial supports for two years from 2019)
- 2014 Prime Minister Commendation in recognition of Excellent Performance in Public Service, Republic of Korea

## Career History

Ministry of Environment (ME), Republic of Korea

2006.04 – Present

### Director

- **Korea's River Restoration:** Implementing Korea's first nation-wide major river restoration programme ('**Natural Restoration of Four Major Rivers of Korea**'), leading Taskforce for Investigation and Assessment for Natural Recovery of Four Major Rivers (Jan. 2018 - present)
- **National Water Management:** Initiating **Integrated Water Management (IWM)** scheme, integrating national water management strategies and authorities into one umbrella of ME (Jul. 2017 - Jan. 2018)
- **Natural Resources Conservation:** As a representing director at Jeju Special Self-governing Province Office, rolling out a wide range of conservation measures with particular emphasis on sustainable use and preservation of groundwater (2016.7-2017.7)

### Deputy Director

- **Nature Conservation:** Established '**Basic Plan for Conservation of Natural Environment**' as a Leading Deputy Director of the Nature Policy Division (Jan. 2014 - Jul. 2016); In close cooperation with international researchers, actively involved in obtaining approval of standing committee on resolution "Wetland City Accreditation of the Ramsar Convention"
- **Resource Recycling:** Set up Korea's first policy to systematically recycle electronics and automobiles (Jan. 2012 - Jan. 2014); In an aim to introduce EPR system of end-of-life vehicles into Korea, and in collaboration with the nation's some of the top automobile manufacturers, including Hyundai Automobile, set up recycling system for end-of-life vehicles.
- **Chemical Management:** As a head of Korea's delegation at "the Intergovernmental Negotiation Committee to prepare a globally legally binding instrument on mercury (3rd, 2011)", followed by domestic adjustment on then-current mercury regulations and emission level (Dec. 2010 - Jan. 2012); Conducted "Pollutant Release and Transfer Register" policy, encouraging industry's voluntary reduction on hazardous chemical emission level
- **Renewable Energy:** As participating member at the Presidential Committee on Green Growth, implemented renewable energy policies
- Carried out trade-related environmental negotiations on behalf of ME, Korea such as FTA in the International Cooperation Division (Mar. 2009 - Feb. 2010)
- Implemented the policy of stormwater quality management in the Water Environment Policy Bureau (Apr. 2007 ~ Mar. 2009)

Korea Institute of Science and Technology  
Water Environment Center

2001.08-2005.12

### Research Scientist

- Field of Specialization: Treatment of wastewater using Constructed Wetlands, Establishment of the ambient water quality and effluent standard for aquatic toxic substances, Production of Biogas and treatment of swine wastewater.

## Publications

### International Journal (SCI) : 1

- Choi YG, Ko DH, Kim HJ, Chung TH (2004), “*Determination of nanogram level of VSCs using GC-SCD and an adsorption tube*”, Water Sci Technol. 49(9), pp. 329-334

### Domestic Journal (Written in Korean): 4

- Ko DH, Chung YC, Seo SC (2010), “*Removal Mechanisms for Water Pollutant in Constructed Wetlands : Review Paper*”, Journal of Korean Society of Environmental Engineering, 32(4), pp. 379-392
- Chung YC, Ko DH(2005), “*Framework for Deriving Water Quality Criteria of Toxic Substances*”, Journal of Korean Society on Water Quality, 21(4), pp. 305-313
- Ko DH, Lee SM, Shin JH, Jung JY, Son DH, Chung YC (2003), “*Production of renewable energy from piggery wastewater using Hybrid Anaerobic Baffled Reactor (HABR)*”, Journal of Korea Society of Waste Management, 20(2), pp. 125-135
- Ko DH, Choi YG, Chung TH (2001), “*Evaluation of the Effect of Humus Soil on Denitrification by NUR Batch Test*”, Journal of Korean Society of Water and Wastewater, 15(1), pp. 20-27

### Domestic Conference Proceedings (Written in Korean): 3

- Ko DH, Cho EG, Hwang SH, Kim HT, Kim HY, Hong JK (2018), “*Integrated Water Management (IWM) Policy for Effective Water Management*”, Proceeding on Joint Conference of Korean Society on Water Quality and Korean Society of Water and Wastewater, Spring Session, pp. 19-20
- Ko DH, Chung YC (2003), “*Start-up of Pilot scale Aerated Constructed Wetland treating Decentralized Wastewater*” Proceeding on Joint Conference of Korean Society on Water Quality and Korean Society of Water and Wastewater, Fall Session, pp. 125-127
- Choi YG, Ko DH, Kim DY, Chung TH (2001), “*A study on Analysis and Preservation of Volatile Sulfur Compounds using GC-SCD and Adsorption Tube*”, Proceeding on Joint Conference of Korean Society on Water Quality and Korean Society of Water and Wastewater, Spring Session, pp. 111-114

### Research Paper (Written in Korean): 2

- Chung YC, Jung JY, Sang BI, Shin JH, Ko DH, Kim YJ, Park KS, Jang HW, Lee HH (2005), “*Study of development of full-scale system for the production and utilization of biogas from organic wastes.*” Ministry of Commerce Industry and Energy, Republic of Korea.
- Chung YC, Ko DH, Son DH, Jung JY, Shin JH, Kang SH, Lee KB, Pyo HS, Sang BI, Shin DM, Park YJ, Jun DH (2002-2005), “*Study on Extended Authorization of Specific Toxic Substance and Establishment of the Effluent Standard*”, National Institute of Environmental Research, Republic of Korea.

## Theses

- 1997, Master Thesis, *“Advanced Wastewater Treatment by Application of a Humus Soil Contactor”* (Written in Korean), Seoul National University, Advisor Taehak Chung

## Patents

- Chung YC, Ko DH, Choi YS, Jung JY, Korean Patent Application Number 10-2004-0015523 (2004), *“Aeration-type Constructed Wetland System and Method for Advanced Treatment of Sewage, Wastewater and the like using there it”* (Korean Patent)

## Certifications

- 2004 Professional Engineer: Water Pollution Control (Korean)
- 1997 Engineer: Civil Engineering (Korean)

## Language Proficiency

- GRE: Verbal (153, 61%), Quantitative (167, 91%), Writing (3.0, 17%)
- IBT TOEFL: 88

## References

- **Dr. Jeong-Kee Hong**  
Deputy Minister  
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