

**Profile:**

- Dr. Yong-Gun Kim is a Full-Time Professor at the Graduate School of International Studies (GSIS), Yonsei University, with an extensive background in Environmental Economics and Sustainable Development. He teaches courses in Applied Economic Analysis and Development Policy, Climate and Energy Modeling, Sustainable Development and Economics of Climate Change in the university.

Besides his role as an academic, Dr. Kim's professional experience spans numerous roles - including a Lead Author for IPCC 5<sup>th</sup> and 6<sup>th</sup> Assessment Reports, the President of the Greenhouse Gas Inventory and Research Center under the Ministry of Environment, a Consultant at OECD Environment Directorate (Climate-Economy Modeling team), and the Director of the Climate and Air Quality Research Group at KEI.

**Education:**

- Ph.D. in Environmental Economics, Korea Advanced Institute of Science and Technology (KAIST), 1996
- M.A. in Management Science, Korea Advanced Institute of Science and Technology (KAIST), 1992
- B.B.A. in Business Administration, Seoul National University (SNU), 1989

**Research and Academic Employment:**

- Full-Time Professor, Graduate School of International Studies (GSIS), Yonsei University, Seoul, 2024
- Chief Research Fellow, Korea Environment Institute (KEI), 1996 – 2024

**Professional Services:**

- Lead author for IPCC AR5 and AR6 WG-III, 2010 – 2023
- President, Greenhouse Gas Inventory and Research Center, Ministry of Environment, 2016 -2018
- Project Leader, Integrated Top-down and Bottom-up GHG Mitigation Modeling for Korea, Ministry of Environment, 2014 - 2016
- Director, Office of Planning and Coordination, Korea Environment Institute (KEI), 2013 - 2014
- Director, Climate Economics Division, Korea Environment Institute (KEI), 2008 - 2013
- Consultant, Environment Directorate, OECD CGE modeling for OECD Environmental Outlook, 2006 – 2008
- Director, Climate Change Research Division, Korea Environment Institute (KEI), 2005 – 2006
- Government delegation of Korea for Climate Change Negotiation (most of COP meetings, Subsidiary Body meetings and OECD AIXG meetings), 1997 - 2016

## Research Area:

- Sustainable Development and Climate Change
  - ❖ Economics of climate change
  - ❖ Carbon market and energy policy
  - ❖ Integrated top-down/bottom-up modeling for climate change policy evaluation
  - ❖ Sectoral bottom-up technology choice models for power, transportation, industry and building sectors
  - ❖ Air pollution management policy
- Market Equilibrium Analysis with Computable General Equilibrium Models
  - ❖ Economic/Environmental impacts of domestic/international GHG mitigation policies
  - ❖ Carbon tariff (CBAM) and consumption-based emissions
  - ❖ Climate club and new industrial protectionism
- Game Theory and Information Economics
  - ❖ Noncooperative/Cooperative/Coalition and Bayesian games

## Research Projects/Reports:

- Yong-Gun Kim, Tae Yong Jung, Jongwoo Moon, Jaewan Kim, and Gemma Estrada, Costs and Benefits of Low Carbon Transition in Asia, Asian Development Bank, 2023
- *Development of Global Integrated Assessment Model for Power Sector*, Korea Environment Industry and Technology Institute, 2022~2028 (Role: Principal Investigator)
- *Economic Impacts of 2050 Net-Zero Scenario for Korea – Application of Integrated Top-Down and Bottom-Up Model*, Ministry of Environment, 2021 (Role: Principal Investigator)
- *Integrated Climate-Energy-Environment Policies for 2050 Low Emission Development Strategy – Case of Power sector in Korea*, Korea Environment Institute, 2021 (Role: Principal Investigator)
- *GHG Emissions Trading for Power-sector GHG mitigation*, Ministry of Environment, 2021 (Role: Principal Investigator)
- *Development of Integrated Assessment Model for Korea*, Korea Environment Industry and Technology Institute, 2014~2020 (Role: Principal Investigator)
- *Development of Economy-Environment Model*, Ministry of Environment of Korea, 2009~2011 (Role: Principal Investigator)

- *CGE Analysis of National CO2 mitigation targets*, Prime Minister Office of Korea, 2009 (Role: Principal Investigator)
- *A development of environment-economics model for climate policy analyses*, Korean Ministry of Environment, 2009, (Role: Principal Investigator)
- *A study on the design of GHG emissions reduction commitment for developing countries*, Ministry of Environment, 2002. (Role: Principal Investigator)
- *Estimation of unit recycling cost under the extended producer's responsibility in Korea*, Korea Resources Recovery and Reutilization Corporation, 2002. (Role: Principal Investigator)
- *Determining national GHGs reduction targets and a design of emission trading for GHG emissions control in Korea*, Ministry of Environment, 2001. (Role: Principal Investigator)
- "Cost-Benefit Analysis of Natural Gas Technology and Implications for Environmental Policy", Korea Gas Corporation, 2000. (Role: Principal Investigator)

**Peer Reviewed Journal Papers:**

- Yong-Gun Kim, Hyungwoo Lim, Jeongeun Lee, Decarbonizing road transport in Korea: Role of electric vehicle transition policies, *Transportation Research Part D* 128, 2024
- Hyunwoong Choo, Yong-Gun Kim, Dongwoo Kim, Power sector carbon reduction review for South Korea in 2030, *Renewable and Sustainable Energy Reviews*, 2024
- Yong Gun Kim, Jongwoo Moon, Jaewan Kim, Evaluating the Economic Impacts of Korea's NDC (Nationally Determined Contributions) Implementation via Carbon Pricing: A Global Multiregional Computable General Equilibrium Analysis, *Journal of Climate Change Research*, 2023
- Erik Haites, Paolo Bertoldi, Michael König, Christopher Bataille, Felix Creutzig, Dipak Dasgupta, Stéphane de la rue du Can, Smail Khennas, Yong-Gun Kim, Lars J. Nilsson, Joyashree Roy & Agus Sari, Contribution of carbon pricing to meeting a mid-century net zero target, *Climate Policy*, 2023
- Jung Tae Yong, Yong-Gun Kim and Jongwoo Moon, The impact of Demographic Changes on CO2 Emission Profiles: Cases of East Asian Countries, *Sustainability*, 2021
- Yong-Gun Kim & Jong Soo Lim, Treatment of Indirect emissions from the Power sector in Korean emissions trading system, *Environmental Economics and Policy Studies*, 2021

- Kim, Jaewan, Tae Yong Jung and Yong Gun Kim, Multilevel Analysis of Civic Engagement and Effectiveness of Energy Transition Policy in Seoul: The Seoul Eco-Mileage Program, *Sustainability*, 2020
- Koo, Yoonmo, Yoonha Lee and Yong-gun Kim, The differentiated impact of emissions trading system based on company size, *Climate Policy*, 2019
- Munnings, Clayton, William Acworth, Oliver Sartor, Yong-Gun Kim and Karsten Neuhoff, Pricing carbon consumption: Synthesizing and emerging trend, *Climate Policy*, 2019
- Kim, Yong-Gun, Jonghyun Yoo and Wankeun Oh, Driving forces of rapid CO2 emissions growth: A case of Korea, *Energy Policy*, Vol. 82, pp144-155, 2015
- Kim, Yong-Gun and Jong Soo Lim, An Emissions Trading Scheme Design for Power Industries Facing Price Regulation, *Energy Policy*, Vol. 75, pp84-90, 2014
- Hong, Jong Ho, Yong Gun Kim and Miyeon Lee, Economic impacts analysis of natural disasters – Using recursive dynamic global computable general equilibrium model, *Crisis and Emergency Management: Theory and Practice*, Vol 10. No. 11, 119~141, 2014 (in Korean)
- Kwon, Oh-Sang, Hye-Jung Kang and Yong-Gun Kim, Electricity Demand and the Impact of Pricing Reform: An Analysis with Household Expenditure Data, *Environmental and Resource Economics Review*, Vol. 23, No. 3, pp 409-434, 2014 (in Korean)
- Kim, Yong-Gun, Linking GHG emissions trading scheme among Korea, China and Japan, *Environmental and Resource Economics Review*, Vol. 21, No. 4, pp 809-850, 2012 (in Korean)
- Kwon, Oh-Sang, Yong-Gun Kim and Jae-Ho Jung, Analyzing the Impacts of a Bonus-Malus System for New Cars Using a Discrete-Continuous Choice Model, *Environmental and Resource Economics Review*, Vol. 21, No. 2, pp 237-269, 2012 (in Korean)
- Lim , Jong Soo and Yong Gun Kim, Combining Carbon Tax and R&D Subsidy for Climate Change Mitigation, *Energy Economics*, Vol 34, S496-S502, 2012
- Lim , Jong Soo and Yong Gun Kim, Double Dividend Effect of Revenue-Neutral Carbon Tax in Korea, *Environment and Resource Economics Review*, 2010. (in Korean)
- Bagnoli, Philip, Jean Chateau and Yong Gun Kim, The Incidence of Carbon Pricing: Norway, Russia and the Middle East, *OECD Economic Studies*, No. 44, 2008/1
- Ahn, Byong-Hun and Yong-Gun Kim, “Tradable Tagged Permit System for Global Pollution Control,” *Journal of Policy Modeling*, Vol. 23, No. 5, 569-594, 2001.

**Book Chapters:**

- Chapter 2. Emissions Trends and Drivers, *Climate Change 2022: Mitigation of Climate Change*, IPCC, 2022
- Chapter 10. How Can the Carbon Market Help Achieve Carbon Neutrality?, *12 Hot-button Issues in the Era of Climate Crisis*, Parkyoung Publishing Co., 2021
- Chapter 14. Regional Development and Cooperation, *Climate Change 2014: Mitigation of Climate Change*, IPCC, 2014
- OECD, *Environmental Outlook to 2030*, 2008 (Co-writer of four chapters)
- Reducing Uncertainty through Dual-Intensity Targets, in *Building on the Kyoto Protocol: Options for Protecting the Climate*, World Resources Institute, 2002.