

UPF International: Experts Suggest Ways to Manage Climate Crises

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Seoul, South Korea – Two experts on climate change and the environment addressed a breakout session on environmental issues during the World Summit, each followed by a commentator and discussion. The session, organized by the Hyo Jeong International Foundation for Environmental Peace (HJIFEP), took place at the Lotte World Hotel on April 12, 2025.

Dr. Douglas D.M. Joo, chair of HJIFEP, in his welcoming remarks explained the background of the organization, its founding in 2017 by Dr. Hak Ja Han Moon, its conferences and its publications, including the online environmental magazine, *The Earth and I*.



Dr. Sun Jin Moon, executive director of HJIFEP, gave the founder's address on behalf of her mother. She said HJIFEP's mission is "to find, promote, and help implement the most effective solutions to environmental challenges." She described its approach as examining both conventional, materialist science and frontier, postmaterialist science. "Ultimately," she said, "the fundamental solution to environmental problems is based on elevating our consciousness and establishing harmonious relationships between humans and nature."

H.E. Keeyong Chung, deputy minister for climate change and special representative for the Indo-Pacific region under the Ministry of Foreign Affairs of the Republic of Korea, offered congratulatory remarks. Amb. Chung said it was time for the global community to "move beyond declarations and toward decisive action." He pointed out four priorities as "essential conditions for credible progress: market opportunity, global solidarity, technological innovation, and effective governance." He also described South Korea's climate commitments and actions it has taken toward those goals.



Former Senegal President H.E. Macky Sall, who currently serves as chair of the Supervisory Board of the Global Center on Adaptation, stressed that environmental challenges are global in nature, and require a worldwide vision. He pointed out that developed nations must prioritize mitigation efforts, reducing and optimizing energy use, while developing nations must focus on adaptation. He stressed that Just Energy Transition Partnerships (JETPs) represent the best opportunity for equitable energy transition, and encouraged developed countries to support Africa's efforts, as the least polluting continent, to combat climate change.



Topic 1: Climate Change, Environmental Crises and the International Community's Response

Following the opening speeches, **Prof. Gun Woong Bahng**, chair of the Dept. of Mechanical Engineering at the State University of New York's Korea branch, served as session chair and introduced the presenters.



Dr. Soonchang Yoon, professor emeritus of atmospheric sciences at Seoul National University and chair

of the National Committee of Future Earth, gave a presentation on "Characteristics of the Paris Agreement and Response to the Climate Crisis." Dr. Yoon outlined contemporary threats of air pollution and climate change, as well as the achievements and challenges of international cooperation to mitigate the impacts of these crises on human society.



Dr. Yoon explained the history of global warming leading to climate change, causing heatwaves, wildfires, droughts, and heavier storm systems that threaten human lives and habitats. He then discussed efforts to reduce greenhouse gas emissions to 1.5°C, through the Intergovernmental Panel on Climate Change (IPCC), the Earth Summit in 1992, and the Paris Agreement 2015 (COP21). He concluded that, "The window of opportunity to limit global warming to safe levels is rapidly closing," and there is an urgent need for global cooperation to cut emissions to slow climate change.



Dr. Suh-Yong Chung, director of the Center for Global Climate and Marine Governance at Korea University, suggested in his commentary that greenhouse gas emissions could be reduced through low-carbon or carbon-neutral technologies. He stressed the need to ensure that developing countries have access to financial resources, technology, and capacity building. He expressed optimism that clean energy technologies would be commercialized around the world, in fields such as electric power, forestry, industrial processes, transportation, and buildings. He suggested that the climate change response could create new jobs and bring new opportunities for sustainable development.



Guest speaker **Ms. Wanjira Mathai**, 2025 Sunhak Peace Prize laureate, is managing director for Africa and global partnerships for the World Resources Institute; chair and director of the Greenbelt Movement; program leader for Women Entrepreneurs in Renewables; and Africa adviser for the Bezos Earth Fund. She described Africa as "the hub of renewable energy, with the best solar potential in the world," and suggested that energy-intensive industries, like AI, should consider locating their operations in Africa. She said that Africa's green competitive advantage should be at the center of the climate solutions of the future.



Topic 2: Advances in Science and Technology and the Demand for a New Worldview

Dr. Cliff Davidson, director of the Center for Sustainable Engineering at Syracuse University, said that reductions in the use of many resources are essential. He advocated developing a "circular economy" consistent with a reduce-reuse-recycle approach, to transform the one-way "linear economy," which moves from raw materials-to-manufacturing-to-landfill. He said that industrial systems should be modeled on natural ecosystems, which are self-sustaining.

He stressed the imperative to reduce CO₂ emissions, and stated that "renewable energy can replace everything we do with fossil fuels." He said a new worldview that emphasizes success is needed, combined with strong leadership around the world, to solve the environmental crisis.

Dr. Arnaud Delorme, professor of neuroscience at the Paul Sabatier University in Toulouse, France, said in his commentary that in order to solve environmental issues, "a deeper transformation in how we see ourselves in relation to nature is necessary." He said that modern city-dwellers are disconnected from nature and from each other, which fosters apathy and inaction. He said we should learn from nature's efficiency, resilience, and balance, and design systems that mimic natural processes.

Prof. Gun Woong Bahng concluded the session by summarizing the proceedings and reinforcing the perspective that a new culture of respect for nature and responsibility for the environment is needed. Such a culture must be shared and promoted by industry and world leaders, with a sense of urgency, if it is to change the current trajectory of climate change and environmental degradation in a significant and effective manner.