## Integrated Analyses of Climate Policies for Simultaneous Realization of the Paris Agreement and the SDGs

\*KIYOSHI TAKAHASHI<sup>1</sup>, TOSHIHIKO MASUI<sup>1</sup>, GO HIBINO<sup>2</sup>

1. National Institute for Environmental Studies, 2. Mizuho Information & Research Institute

The Paris Agreement which was entered into force on 4th November 2016 states to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. To achieve these ambitious goals, the Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs), and to strive to formulate and communicate long-term low greenhouse gas emission development strategies. While achievement of the goals agreed in the Paris Agreement is a necessity for the world to maintain its sustainability, it needs to be realized in a manner that does not disturb or disable the other important societal goals, typically exemplified as the 17 Sustainable Development Goals (SDGs) adopted by world leaders in September 2015 at the UN Summit. For example, stringent mitigation policies to achieve the climate goal of the Paris Agreement may increase the risk of hunger in low-income countries through the expected increase in food prices and land resource conflicts between food crops production and bioenergy crops production. For achieving the global goals on climate and food security simultaneously, in addition to the GHGs mitigation efforts like energy system transformation, supplementary measures such as international aid or regional income redistribution would be needed. Based on the backgrounds stated above, in April 2017, the Environment Research and Technology

Development Fund (2-1702): "Integrated Analyses of Climate Policies for Simultaneous Realization of the Paris Agreement and the SDGs" started the research to realize both the decarbonized society and sustainable development goals (SDGs) in the world and Japan. At the session, outline and preliminary research outcomes of the project will be introduced.

Keywords: Paris Agreement, SDGs, Climate change