

P69 CO2 simulation over East Asia using WRF/Chem

Takigawa, Masayuki, and Prabir K. Patra, *Japan Agency for Marine-Earth Science and Technology, Japan*

The Weather Research and Forecasting (WRF) model is used for regional transport simulations of atmospheric carbon dioxide (referred to as WRF-CO₂) for the East Asia region. Lateral boundaries and initial condition are taken from the output of our global chemical transport model, ACTM. To understand the role of surface fluxes and transport, we have simulated atmospheric CO₂ using 5 different CO₂ fluxes from ocean, fossil fuel and terrestrial biospheres at various horizontal resolutions, and at hourly to monthly time intervals. The model simulations are compared with observed time series at 9 stations, which are located under different ecological and climate conditions.