

# Overview of S-12-2 project and progresses in FY2014: assessing emissions of Long-Lived GHGs and Short-Lived Climate Pollutants in Asia

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The research project S-12-2 (i.e. theme 2 in S-12 project) supported by the Environmental Research and Technology Development Fund has just started since the 2014 fiscal year. The main research topic of the whole S-12 is “promotion of climate policies by assessing environmental impacts of SLCP (Short-Lived Climate Pollutants) and seeking LLGHG (Long-Lived Greenhouse Gases) emissions pathways” and the research goal is to develop an integrated evaluation system of mitigation policies for LLGHG and SLCP by interconnecting emission inventory, integrated assessment models and climate models. Within the S-12 project, the role of S-12 theme2 is “improvement of integrated assessment model (IAM) and quantification of future scenarios”, by utilizing detailed emissions inventory developed by S-12-1 (theme 1 in S-12) and for providing information of future emissions scenarios to S-12-3 (theme 3 in S-12).

The S-12-2 project is led by NIES cooperating with MHIR and Kyoto University, and it is composed of three sub-themes; IAM development and analyses 1) at the global and Asian scale (by NIES), 2) at a national scale in Asia (by MHIR) and 3) at a local scale (by Kyoto University). There are two main challenges of S-12-2; 1) to indicate socio-economic scenarios considering climate change and environmental impacts and to present future emissions scenarios of LLGHG and SLCP at the global scale, national scale and local scale, and 2) to evaluate co-benefits of LLGHG mitigation measures and SLCP reduction measures and to analyze regional characteristics in detail at the Asian scale and national scale, in a manner consistent with long-term global scenarios such as achieving the two degree global temperature change limit target and halving global GHG emissions by 2050 compared to the 1990 emissions level.

This presentation introduces research progresses in sub-them 1 (global scale) and sub-them 2 (national scale) in the 2014 fiscal year, such as mitigation potentials of GHG and SLCP in the urban residential sector at 31 provincial levels in China (see Dr. Xing's poster), in the residential and power sectors in 6 mega-regions in Korea (see Dr. Park's poster), in the passenger transport sector in 18 aggregated states in India (see Dr. Mittal's poster), updating various data in Asia (by MHIR), and emissions pathways in Asia when achieving the two degree target, etc.

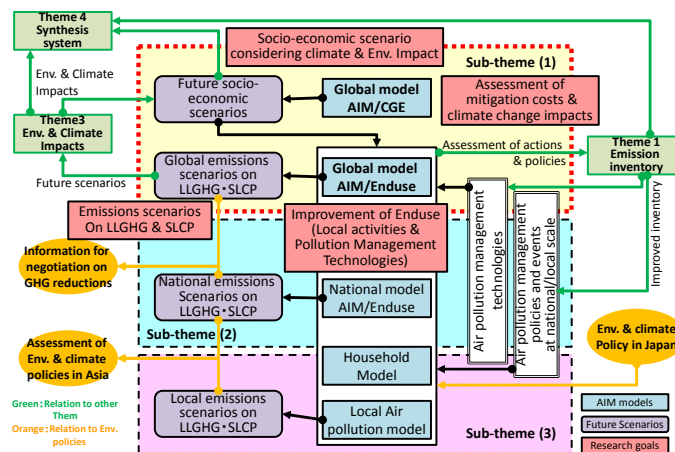


Figure 1 Research outline of the S-12 theme 2