

1.048 Fine Particle Pollution and Acid Deposition in Bangkok Metropolitan Region: Project Overview and Policy Implications.

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Abstract:

This presentation will give an outline of a JICA-RI research project on fine particle pollution and acid deposition in the Bangkok Metropolitan Region (BMR), with a particular emphasis on its policy context and implications. The research project, which was carried out with the participation of the Asian Institute of Technology (AIT) and the Asia Center for Air Pollution Research (ACAP), has been timed with a recent renewed global interest in the problem of air pollution as a development issue, as evidenced by explicit targets of air pollution set under the United Nations' Sustainable Development Goals (SDGs). The project, which began in summer 2014, has two components, the measurements of fine particulate matter (PM_{2.5}) in BMR and the case studies of PM_{2.5} problem and policy in selected countries. The first group of project activities consists of a long-term weekly sampling and analysis of PM_{2.5} and rainfall in two locations of BMR. Meanwhile, concerning the project's second component, we have so far published a set of working papers (JICA-RI Working Papers) on case studies of Japan, South Korea, and Mexico. Our results of BMR measurements confirm that the levels of PM_{2.5} fail to meet the Thai environmental standards and the benchmark of the WHO guideline. Observational data also reveal finer characteristics of the problem, such as the diversity of pollution sources composed of traffic, biomass burning and secondary formation. Thailand has already implemented air quality and emission standards, and it is also strengthening its institutions for monitoring and enforcement of regulation. However, more actions can be taken as well. What our case studies of northeastern Asian countries suggest is that effective pollution control would require a holistic approach combining a range of measures, including those affecting people's incentives on their behavior and those involving a transformation of an economic system.