

Climate Policy Assessment with AIM Model

The course was presented by Prof. Mikiko Kainuma of the National Institute for Environmental Studies, Japan, Prof. P.R. Shukla of the Indian Institute of Management, and Ms. Maho Miyashita of Mizuho Information and Research Institute, Japan. The presentations aimed to introduce the Asia-Pacific Integrated Model (AIM) developed in Japan and to demonstrate its general applicability to assess climate policy and sustainable development in other contexts, for example in India, China, and other developing countries as well as on the regional and sub-national level.

The AIM model allows the development of various multi-sectoral and long-term scenarios based on models that reflect socio-economic transitions and that aim at aligning climate change and sustainable development, as was explained on the basis of the Japanese low carbon society (LCS) project. The application of the model in India has developed scenarios that forecast the alignment of national sustainable development goals with climate change for 2050 based on India's specific development country dynamics including demographic, energy, technology, and consumption transitions and the opportunity to avoid early lock-ins, e.g. in urban development. The model application shows the co-benefits from aligning energy and water markets in South Asia as a whole, and demonstrates the very high costs of non-action on water issues.

The instructors also introduced the Energy Snapshot Tool (EES) that is designed to make the calculation and presentation of energy scenarios easy and accessible. It is a tool that is based on the wide-spread Excel format, that requires accessible energy balance data from highly aggregate to more disaggregate and that operates on a step-by-step basis. Applied for the Japanese low carbon society project that aims at greenhouse gas reductions between 60 and 80 percent by 2050, the EES allows for an easy interpretation of the scenario results and delivers a pathway that shows the practicability of a 70 percent reduction target following different visions of the LCS.