

Session 10 Closing Speech: AIM Modeling and its Contribution to Climate Policies

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Abstract

Low Carbon Society (LCS) has become a common part of the phraseology of the global community of researchers, policymakers and citizens engaged with the concerns of climate change and sustainable development. LCS gained currency when it was realized that, on the one hand drastic GHG emission cuts necessitating major changes in energy systems and socio-economic structures are essential to prevent dangerous climate change and, on the other hand every country's domestic developmental goals must not be compromised. The debates aimed to achieve a convergence among the multiple goals of global climate change mitigation, national economic development, poverty elimination, sustainable development and environmental protection, have led to the importance of LCS and related paradigms.

AIM model started as a tool to evaluate policy options to mitigate climate change and its impacts, and extended its function to analyze other environmental issues such as air pollution control, water resources management, land use management, and environmental industry engagement. AIM has contributed not only to domestic climate policy making processes, but also to international organizations such as IPCC and UNEP by providing knowledge resources related to mitigation and adaptation policies of climate change at global, regional, country, and local levels.

LCS studies showed that 1) achieving 2 degrees Celsius target is feasible, 2) early actions are needed and 3) leapfrogging development in Asia leads to a low carbon society. Whatever pathways are followed, GHG emissions need to be reduced to close to zero in the long run to keep the climate at the corresponding level. More the actions are delayed, larger the reduction rates become and higher the stabilization level will be. Moreover GHG emissions need to become below zero to reduce temperature. To realize negative emissions is much more tough than to keep it close to zero. Also there is a danger that socio-ecosystem will not be recovered even if GHG concentrations are returned to the lower level.

AIM has extended its functions by collaborating with many researchers in Asia as well as many other countries in the world. It is expected to serve as a common modeling methodology to analyze short-term as well as long-term climate policies. Transition to low carbon emissions and low-resource consumption societies, while simultaneously improving the economic standards of living is vital for sustainable development. Asia has many opportunities to realize an LCS by leapfrogging.