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Plan of Korean Geostationary Environment Satellite over Asia-Pacific region

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National Institute of Environmental Research(NIER/Ministry of Environment Korea) is planning GEMS (Geostationary Environment Monitoring Spectrometer) program to be launched in 2017-2018 onboard a MP-GEOSAT(Multi-Purpose GEOstationary SATellite) which is supposed to be the successive mission of COMS(Communication, Ocean and Meteorological Satellite). GEMS is a scanning UV-Visible Spectrometer to monitor trans-boundary pollution events in Asia-Pacific region, together with ABI(Advanced Baseline Imager) and GOCI-2 (Geostationary Ocean Color Imager). The objective of GEMS is to provide high resolution atmospheric chemistry measurements, to monitor regional and transboundary events, to understand on interactions between atmospheric chemistry and climate, and to improve chemical weather forecast with constraining hourly emissions and data assimilation of chemical observations. Opportunity of international collaboration with NASA and ESA, for the constellation with the GEMS of Korea, Japanese air quality mission, GEO-CAPE of U.S.A and Sentennial-4 of Europe planned to be launched in 2017- 2020 time frame, which can make great synergistic outcomes for better understanding in global air quality and climate change issues.