

Overview of CAWSES II: Advancing the understanding of the Sun-Earth interaction

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CAWSES (Climate and Weather of the Sun-Earth System) was established as an international program by SCOSTEP (Scientific Committee on Solar-Terrestrial Physics) in order to enhance our understanding of the Solar Terrestrial relations, which impacts on life and society. In particular, we put special emphasis on the short and long-term variability of solar activity and its effects on the geospace and Earth's environment.

We carried out the first five-year project of CAWSES in 2003-2007. On the basis of its successful achievements, we conducted the second phase of CAWSES during 2009-2013. CAWSES-Phase II especially promoted science and application of the following four themes, which are related to the fundamental questions of the Sun-Earth system.

TG1: What are the solar influences on the Earth's climate?

TG2: How will geospace respond to an altered climate?

TG3: How does short-term solar variability affect the geospace environment?

TG4: What is the geospace response to variable waves from the lower atmosphere?

We have enhanced international collaboration of ground-based observations, numerical modeling and satellite missions. Database is also very important for CAWSES-II. We also help capacity building activities to involve researchers in developing countries as well, and provide educational opportunities for students of all levels. We review in this talk recent achievements of CAWSES-II.

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