CAWSES-II is an international program sponsored by SCOSTEP (Scientific Committee on Solar-Terrestrial Physics) established with an aim of significantly enhancing our understanding of the space environment and its impacts on life and society. The main functions of CAWSES are to help coordinate international activities in observations, modelling, and applications crucial to achieving this understanding, to involve scientists in both developed and developing countries, and to provide educational opportunities for students of all levels.

CAWSES-II is timely as we are poised on the brink of discovering the important processes that connect changes at the solar surface with features in the geospace environment and ultimately with climate variability. These connections are key to understanding complex planetary environments, and the general elements that enable planets to sustain life. Scientific breakthroughs in all these areas await advances in cyber infrastructure that will allow the worldwide research community to access international data sets, distributed sensor networks, virtual observatories, advanced computational and visualization facilities, the most sophisticated Sun-to-Earth community models available, and to communicate with each other across discipline and national boundaries. No single organization is poised to make these breakthroughs, operate these instruments, construct these models, develop and maintain research support facilities. This is a worldwide endeavor with diverse participation and stakeholders. At issue is the ability to address the frontiers of system-level science. An overview of the objectives of CAWSES-II, ways of operating and progress to date will be provided.