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A China-Japan Cooperative JICA atmospheric observing network over the Tibetan Plateau (JICA/Tibet project): An overview

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Considering the importance of the impact of the Tibetan Plateau on atmospheric general circulations and climate across China, Asia, and even the world, Chinese and Japanese scientists jointly constructed an integrated atmospheric observing system, especially for the water vapor observation, across the Tibetan Plateau and its adjacent areas during the period of 2005-2009 under the JICA (Japan International Co-operation Agency) project (JICA/Tibet project). The JICA/Tibet project is designed in an attempt to collect the needed meteorological data on a long term basis. The project aims at alleviating the impacts caused by meteorological disasters in the East Asia region, including China and Japan, through understanding a range of key scientific issues, including the characteristics of atmospheric variations, water vapor transport, hydrologic cycle, and land-air interactions across the Tibetan Plateau and its adjacent areas, and the impacts of the Plateau on the floods occurred in the East Asia region. Through the implementation of the project, the capability of monitoring the Plateau atmosphere are enhanced, the numerical forecast techniques are developed, and the operational assessing system for meteorological disasters over the Tibetan Plateau and the area to its east, especially for severe weather and climate over the middle and lower reaches of Yangtze River valley, are promoted. Many research progresses have been achieved in aspects of land surface processes, weather and climate over the Tibetan Plateau, atmospheric water circles over the Plateau and in global scale, the effect of the Tibetan Plateau on the East Asian monsoon and droughts and floods in China.