Asian Precipitation – Highly Resolved Observational Data Integration
   Toward Evaluation of Water Resources (APHRODITE's water resources)

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[Abstract]

A daily gridded precipitation dataset covering a period of more than 50 years was created by collecting and analyzing rain-gauge observation data across Asia through the activities of the Asian Precipitation—Highly Resolved Observational Data Integration Towards the Evaluation of Water Resources (APHRODITE) project. APHRODITE's daily gridded precipitation is presently the only long-term continental-scale high-resolution daily product. Our product is based on data collected at 5000 to 12,000 stations, which represents 2.3 to 4.5 times the data available through the Global Telecommunication System network that are used for most daily gridded precipitation products. Hence, the APHRODITE project has substantially improved the depiction of the areal distribution and variability of precipitation around the Himalayas, Southeast Asia and mountainous regions of the Middle East. The APHRODITE project now contributes to studies such as the determination of Asian monsoon precipitation change, evaluation of water resources, verification of high-resolution model simulations and satellite precipitation estimates, and improvement of forecasts. The APHRODITE project carries out outreach activities with Asian countries, and communicates with national institutions and world data centers. We released APHRO_V1101 datasets for Monsoon Asia, the Middle East and Russia (on $0.5° \times 0.5°$ and $0.25° \times 0.25°$ grids) and the APHRO_JP_V1005 dataset for Japan (on a $0.05° \times 0.05°$ grid) on our website (http://www.chikyu.ac.jp/precip/). We welcome cooperation with and feedback from users.