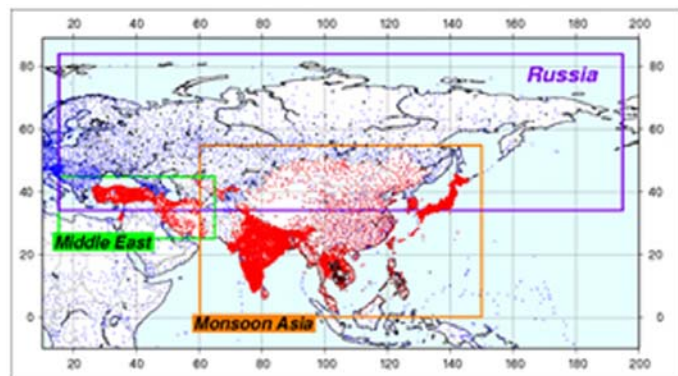


Asian Precipitation - Highly-Resolved Observational Data Integration Towards Evaluation of the Water Resources

Akiyo Yatagai^{1*}, Akio Kitoh², Kenji Kamiguchi², Osamu Arakawa², Natsuko Yasutomi¹,
Atsushi Hamada¹, Tsugihiko Watanabe¹, Jumpei Kubota¹, Makoto Taniguchi¹

¹Research Inst. for Humanity and Nature, ²Meteorological Research Institute/JMA

The APHRODITE Water Resources project develops state-of-the-art daily grid precipitation dataset over Asia. We released APHRO_V0902 datasets for Monsoon Asia, Russia and the Middle East (on 0.5 degree and 0.25 degree grids) at <http://www.chikyu.ac.jp/precip/> (Figure). Our number of valid stations was between 5000 and 12,000, representing 2.3 to 4.5 times the data available through the Global Telecommunication System network, which were used for most daily grid precipitation products. APHRODITE daily gridded precipitation (APHRO_V0902) is the only long-term (1961 onward) continental-scale daily product that contains a dense network of daily rain gauge data for Asia including the Himalayas and mountainous areas in the Middle East.



To achieve this, it was inevitably important to collaborate with each hydro-meteorological organization, to control the quality of original data (QC), and to get feedback from the users as well as to construct a sophisticated algorithm.

The product has contributed to studies such as the evaluation of Asian water resources, diagnosis of climate change, statistical downscaling, and verification of numerical model simulation and high-resolution precipitation estimates using satellites.

We will release next product, V0912 by May 2010 with new QC and interpolation scheme and fixing some errata, The APHRO_V0912 will cover the period 1951-2007, and incorporate more data over Indonesia and Pakistan than APHRO_V0902.

The APHRODITE project is being conducted by the Research Institute for Humanity and Nature (RIHN) and the Meteorological Research Institute of Japan Meteorological Agency (MRI/JMA) from May 2006 till March 2011. We welcome any kind of collaboration and feedbacks.

Keywords: rain-gauge, gridding, climate changes, satellites, models, quality control