Opening up a global water resources re-analysis dataset: the eartH$_2$Observe tier-1 dataset and portal

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Within four years the FP7 project eartH2Observe aims to develop a global water resources re-analysis dataset based on the WFDEI forcing dataset, improved with earth observations and extended with output from hydrological and land surface models that should be off value for multi-scale water resources assessments and research projects. The Tier-1 dataset presented here consists of a large number of earth observation datasets, a first run of a total of nine global hydrological and land surface models for the period 1979 - 2012 and the WFDEI forcing dataset. All model output has been reprocessed to 0.5x0.5 degree resolution but higher resolution data from some models is also available. The current dataset serves as a state of the art in current global hydrological modelling and as benchmark for further improvements in the coming years. Within eartH2Observe we promote the use of the newly available data at an early stage, feedback and comments will enable the further improvement of the dataset. All data is made available openly through a water cycle integrator portal, including visualisation, analysis and collaboration tools, and at a lower level via the protocols of the open geospatial consortium such as OPeNDAP, WCS and WMS via wci.earth2observe.eu.