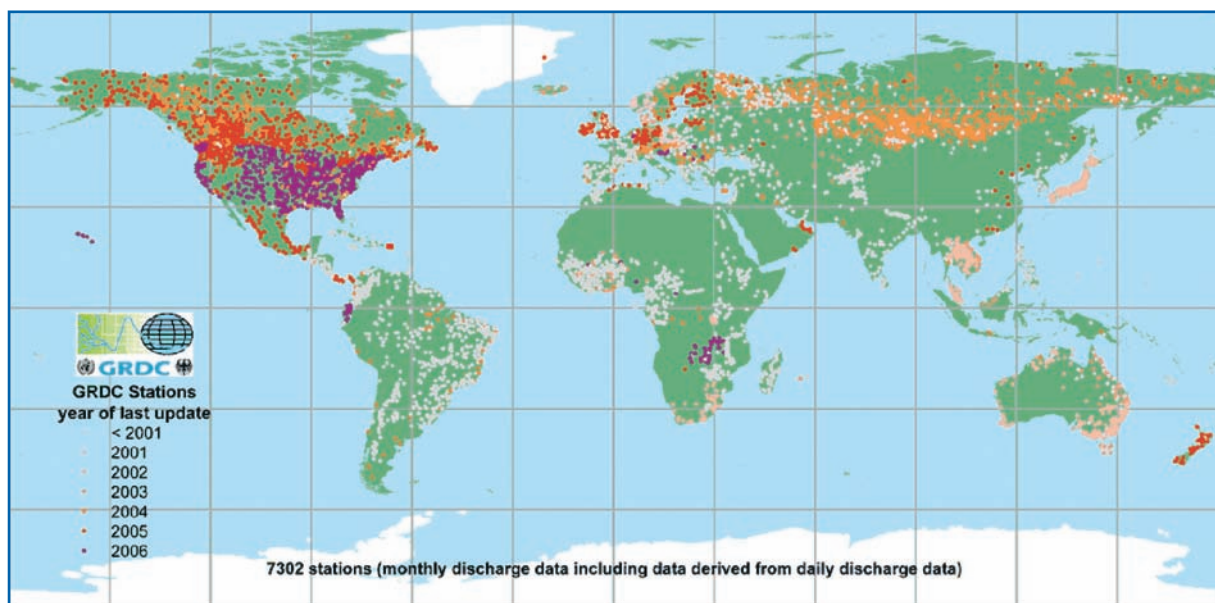


Global Runoff Data Centre (GRDC)

Since 1988 the GRDC operates under the auspices of the WMO and its activities are guided by an international steering committee. The GRDC is funded by the Federal Government of Germany and is located within the Federal Institute of Hydrology (BfG).

Description

The main objectives of the GRDC are the collection, storage and dissemination of discharge data and associated metadata from rivers around the world. The river discharge data are provided by participating WMO Member State's National Hydrological and Meteorological Services. Currently the database holds more than 270 000 station years of river discharge data for approximately 7300 stations. On average the record length is 37 years. The data are disseminated free of charge to support water and climate related programmes and projects of the United Nations, their specialised agencies and the scientific research community.



Added Value

GRDC discharge data collection and dissemination is mandated by WMO Resolution 40 (Cg-XII, 1995) and Resolution 25 (Cg-XIII, 1999) emphasising the fundamental principal of «broadening and enhancing the free and unrestricted international exchange of meteorological and related data and products.» Additionally WMO resolution 21 (Cg-XII, 1995) encourages WMO Member Countries «to support the GRDC through the provision of the hydrological data and related information that it needs».

The exchange of data can be widened substantially and maintained on a sustainable level with the agreement and adherence of GEO Members to the GEOSS Ten Year Implementation Plan.

The provision of historical as well as timely discharge data by GEO Member States to the GRDC will enable the clients of the GRDC in the research and modelling community to substantially improve their findings which in turn has a direct impact on the GEO identified societal benefit areas related to the water cycle.

Relevance to GEO

Water serves as the basis for life on earth and impacts on all GEOSS societal benefit areas. With this in mind, river discharge is not only a key component of the hydrological cycle, but also of paramount importance to sustain life. Changes in river runoff patterns are used to understand and document global changes, but those changes also have a marked impact on all social and economic activities. Therefore timely and reliable information on river discharge on a global scale is critical to the purpose and scope of GEOSS.

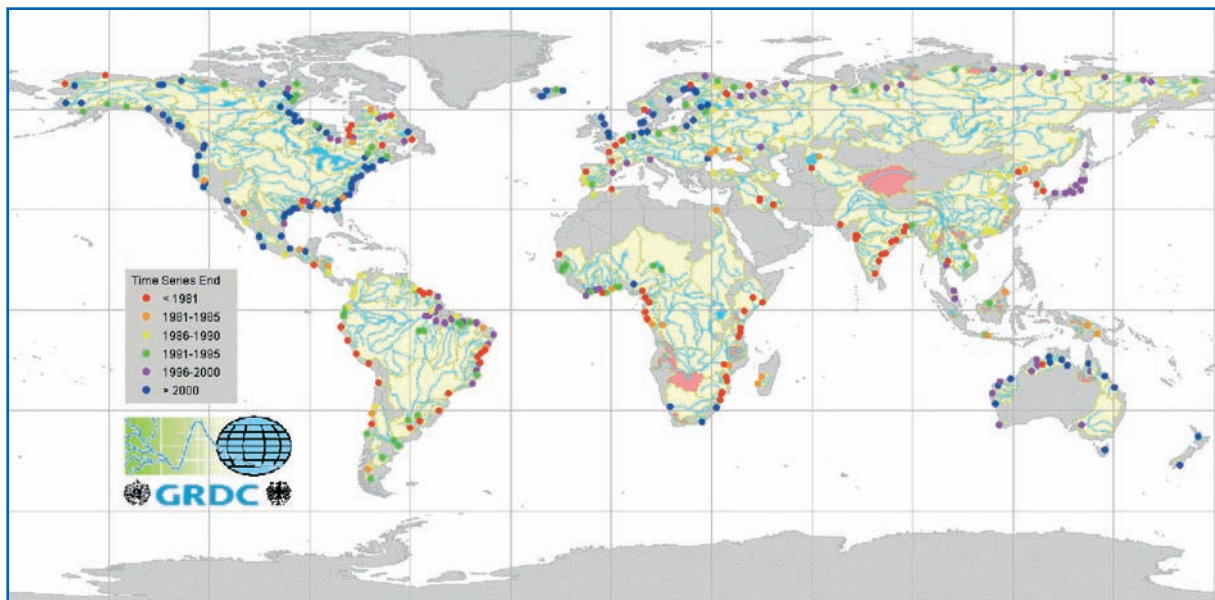
The GRDC represents a direct contribution towards the objectives of task WA-06-05 (“In Situ Water Cycle Monitoring”).

Participants

All GEO Members are involved through their National Hydrological and Meteorological Services. They are the points of contact for the provision of the river discharge data and associated metadata. The GRDC maintains links to a number of Participating Organisations, namely WMO, WCRP, GCOS, UNEP, UNESCO, ICSU, GTOS and UNFCCC. River discharge data collected and stored at the GRDC serve most of the Participating Organisations as an input into their areas of activity. The Participating Organisations mentioned also directly influence the activities of the GRDC.

Current Status and next Steps

Currently the GRDC holds only historical river discharge data in its database. A specialised network is planned to capture Near Real Time discharge data. The Global Terrestrial Network for River Discharge (GTN-R) is a GRDC contribution towards GCOS and GEOSS.



The Global Terrestrial Network for River Discharge (GTN-R). It is envisaged to receive timely river discharge data for the identified 380 river discharge stations along the continental coastlines to determine the freshwater flux into the world oceans.

Contact

Global Runoff Data Centre (GRDC)
 in the Federal Institute of Hydrology (BfG)
 Am Mainzer Tor 1
 56068 Koblenz
 Germany

Phone +49 261 1306 5224
 Fax +49 261 1306 5280
 Email grdc@bafg.de
 Web <http://grdc.bafg.de>

GRDC operates under the auspices of the World Meteorological Organization (WMO) with the support of the Federal Republic of Germany within the Federal Institute of Hydrology (BfG)