



Global Runoff Data Centre (GRDC)

*Facilitator between Data Providers
and
Data Users*

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GRDC operational environment

*Operating under the auspices of
World Meteorological Organisation (WMO)*



*with financial support of the
Federal Republic of Germany*



*within the
Federal Institute of Hydrology (BfG)*



GRDC Main functions

Acquisition – negotiations on suitable stations for data exchange with data providers (National Hydrological Services)

Harmonisation of different data formats, units of measure, calendars

Plausibility check of global historical river discharge data and associated metadata

Data management of river discharge data and station metadata in GRDC database

Dissemination of historical discharge data in standardised data formats to data user communities (“One-stop shop”)

Note:

GRDC does not have its own monitoring infrastructure

Ownership of data remains with original Data Provider (National Hydrological Services)

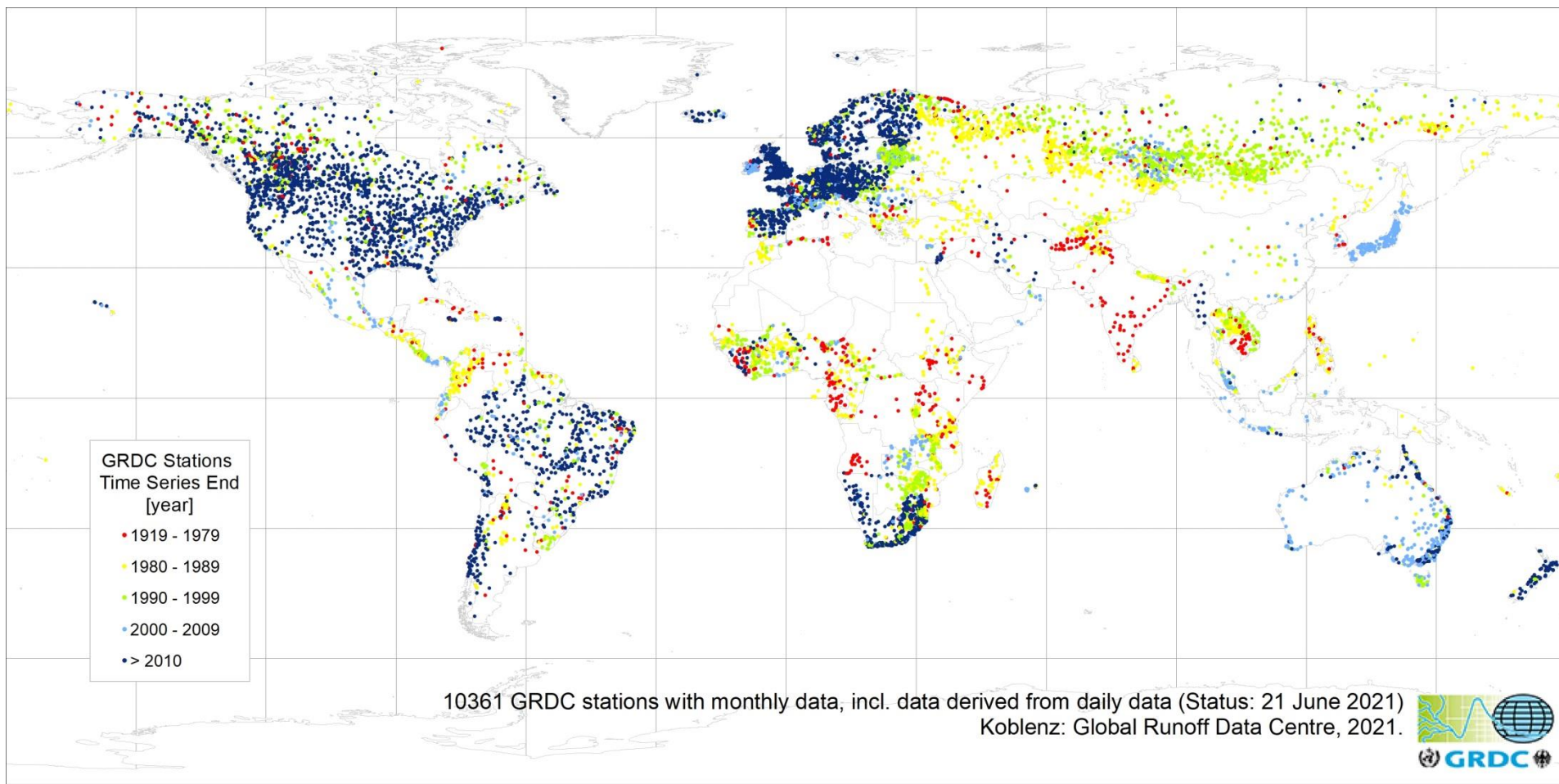


WMO Catalogue for Climate Data

The **WMO Catalogue for Climate Data** is a trustworthy source for climate data.

Current status of the Global Runoff Database

*Global Coverage of GRDC Stations indicated by **time series end***



GRDC Station availability in selected countries

Country	Number of Stations	Earliest Timeseries Start	Latest Timeseries End
Armenia	2	1978	1982
Azerbaijan	4	1953	2017
Bangladesh	4	1969	1992
Egypt	6	1869	1984
India	44	1901	1979
Iran	24	1894	2016
Iraq	4	1906	1972
Oman	9	1981	2003
Pakistan	27	1936	1982
Qatar	-	-	-
Sri Lanka	7	1927	1989
Syria	4	1976	1979
Tajikistan	24	1930	1995
Turkey	28	1937	1987
Uzbekistan	12	1931	1995

GRDC Data Users

GRDC supports climate-related programmes and projects of the United Nations and their special organisations such as the:

- *UNESCO Intergovernmental Hydrological Programme (IHP) (FRIEND-Water)*
- *Global Terrestrial Network for Hydrology (GTN-H)*
- *GCOS (Global Climate Observing System)*
- *GEO (Group on Earth Observations)*
- *GEWEX (Global Energy and Water Exchanges Project)*

and the international scientific community on:

- *Global change*
- *Climate and hydrological modelling*
- *Climate services*
- *Research and assessment*

Data acquisition

Based on: WMO Resolution 21 (Cg XII, 1995) Support to GRDC

WMO Resolution 25 (Cg XIII, 1999) Exchange of Hydrological Data and Products

- *Primary data providers are National Hydrological Services*
- *Ownership of data remains with original data provider*
- *No institutionalised data provisioning*
- *No payment for offered data*
- *Data requests to National Services at intervals*
- *Individual contact often essential for successful data acquisition*
- *Data offered by GRDC only with permission by National Authorities*

Station selection criteria

Standard:

Stations representing the hydrology of region or basin


Special interest:

- ***Most downstream stations on larger rivers without tidal influence to capture total flux to oceans, endorheic basins***
- ***Climate sensitive stations with minimal human impact, reference stations***

GRDC Data Products

Examples from GRDC Website


Apart from river discharge timeseries available via the Data Portal, GRDC offers related data products which are listed on the GRDC Website <http://grdc.bafg.de>



Major River Basins of the World, 2nd ed. (GRDC, 2020)

GRDC Major River Basins of the World (MRB) is an ongoing GIS project of the Global Runoff Data Centre (GRDC). It is provided for public use under the condition of full citation and reference to incorporated data from the HydroSHEDS database. This is the 2nd, revised edition 2020 and replaces the basin polygons and river lines of the edition 2007 (GRDC 2007).

[➤ More ...](#)



WMO Basins and Sub-Basins, 3rd ed. (GRDC, 2020)

WMO Basins and Sub-Basins (WMOBB) is an ongoing GIS project of the Global Runoff Data Centre (GRDC). It is provided for public use under the condition of full citation and reference to incorporated data from the HydroSHEDS database. This is the 3rd, revised and extended edition 2020 and replaces the catchment polygons of the edition 2017.

[➤ More ...](#)



...more than 32 years GRDC

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Thank you for your attention!