

Improve and Formalise Data Sharing Procedures between NHSs and Data Centres

the
Global Runoff Data Centre (GRDC) experience

WMO RA VI Hydrology Forum
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GRDC

... the world-wide repository for river discharge data
and associated metadata

...in support of Global Change Research and
Integrated Water Resources Management.

Operates under the auspices of the
[World Meteorological Organisation \(WMO\)](#)



on the advice of an
[International Steering Committee](#)

with the financial support of the
[Federal Republic of Germany](#)



within the
[Federal Institute of Hydrology](#)



Mandate

The GRDC is mandated amongst others by:

WMO Resolution 21 (Cg-XII, 1995)

...support to Global Runoff Data Centre

WMO Resolution 25 (Cg-XIII, 1999)

...free and unrestricted exchange of hydrological data and products

WMO Congress XVI (2011)

- decides to keep Resolution 21 in force
- urges Member States to comply with Resolution 25

1st WMO RA VI Hydrology Forum

**Task for GRDC to Improve and Formalise Data Sharing Procedures
between NHSs and Data Centres**



Contact & Consolidation

- Identification of NHS contact person(s)
 - RA VI Hydrology Forum
 - WMO Secretariat
 - GRDC Contact database
- Consolidation of station list for GRDC supported projects
 - GRDC main database
 - European Water Archive of UNESCO EURO-FRIEND-Water
 - Global Terrestrial Network for River Discharge (GTN-R)
 - WMO CHy Climate Sensitive Stations (Reference Stations)
 - ArcticHYCOS and Arctic Runoff Database (ARDB)
 - GEOSS Data Core (currently only GTN-R stations)
 - AdaptAlp
 - BALTEX
 - etc.

Data Request & Follow-Up

Submit consolidated stations lists to NHSs for discussion on selection of suitable stations

- Extensive correspondence needed with all providers to clarify selection criteria, metadata, final station list, data transfer mechanisms etc.
- Regular follow-ups needed to maintain momentum of the discussion

Data Provisioning

Data are provided by various means to the GRDC

- Direct access to database
- FTP download from suppliers server
- FTP upload to GRDC server
- Download from website
- Email attachments

- Currently no Web Services

Experiences gained

- Extensive correspondence is always required
- Apparently access to quality assured “historical” data more difficult than “real-time” data
- GRDC data requests triggers NHSs internal activities eg.
 - Identification of reference stations
 - Reconsidering “Freshwater Flux” stations
 - Addressing station metadata issues
- Automated updating currently done by limited number of providers
- Reminders are useful to trigger updating process

But why do we do this?

GRDC Data Users

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

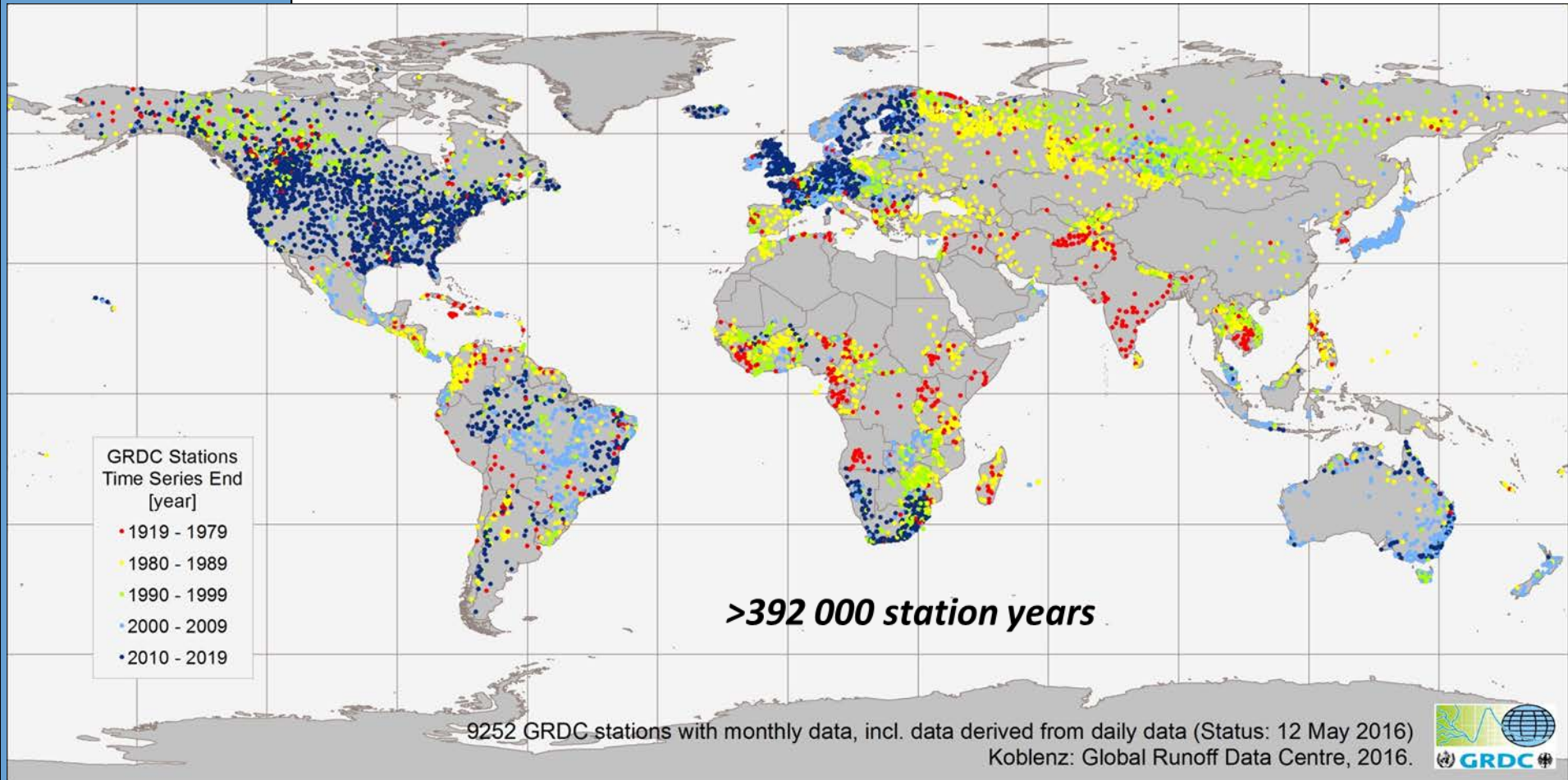
- Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC (GCOS-IP)
- Global Terrestrial Network for Hydrology (GTN-H)
- GCOS (Global Climate Observing System)
- GEO (Group on Earth Observations)
- GEWEX (Global Energy and Water Exchanges Project)
- GRDC – GEMS/Water products on chemical loads
- GRDC Freshwater Fluxes to the World Oceans products
- EU funded projects...

And the international scientific community on:

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

GRDC Main Database

regular updates of relevant historical discharge data required

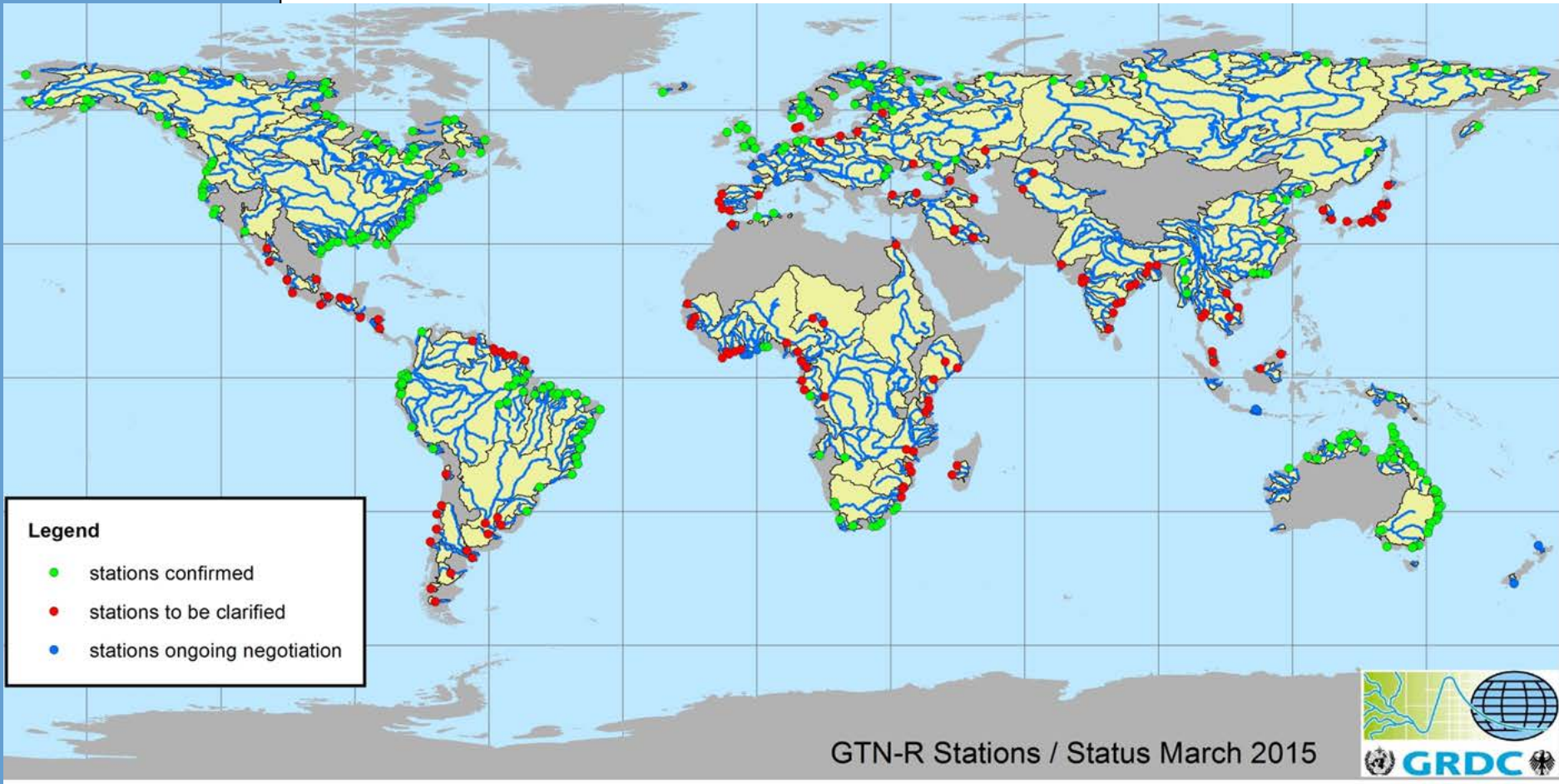




GRDC Station Selection for the Global Terrestrial Network for River Discharge (GTN-R) and Integration into the GEOSS Common Infrastructure GCI

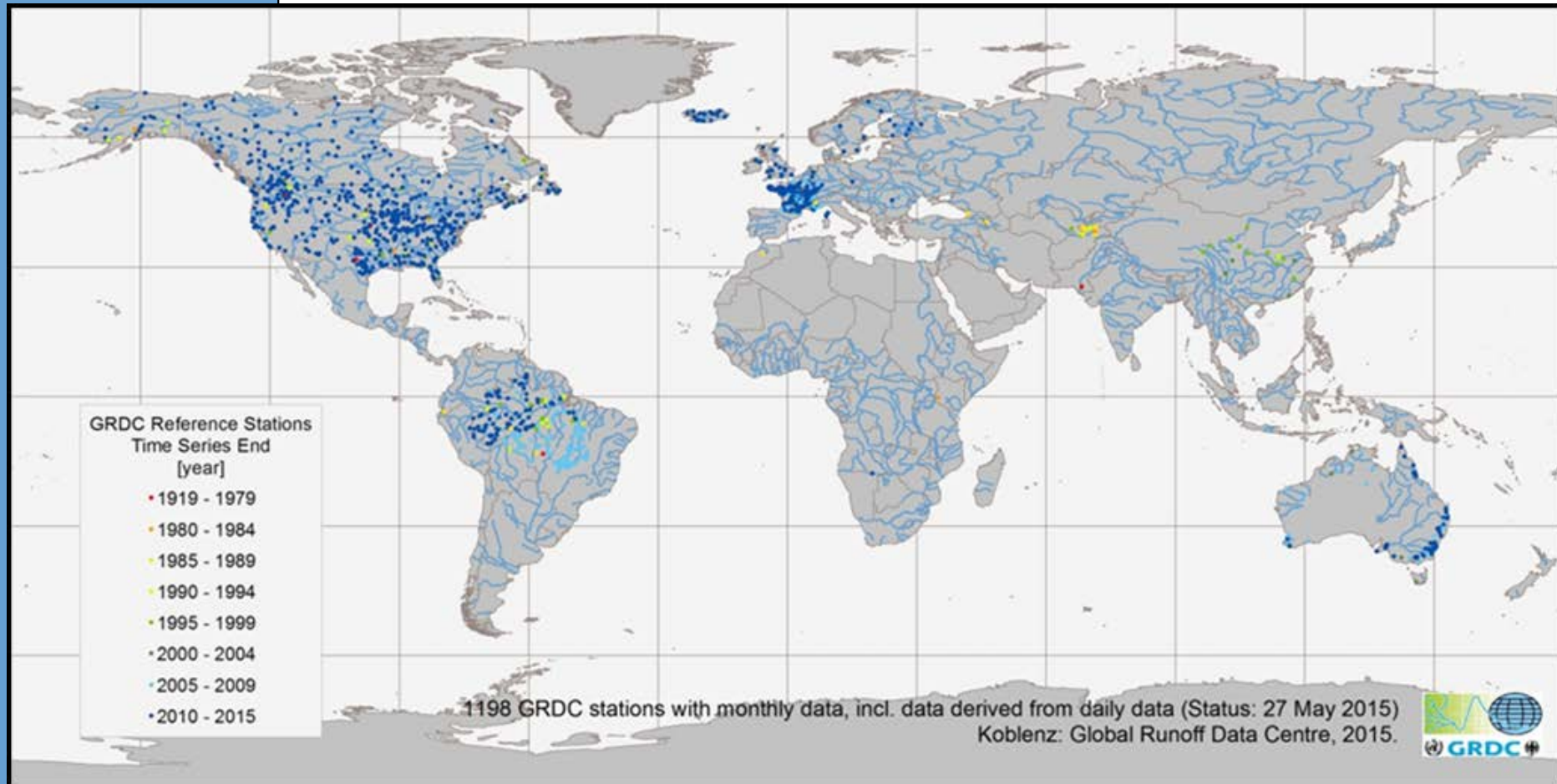
280 Stations confirmed

160 Stations to be clarified



Climate Sensitive Stations and/or Reference Stations

33 Countries that have reported climate sensitive stations to WMO and or GRDC



GRDC future outlook

- Continue negotiates with contacted countries
- Include further RA VI countries in the process
- Fine-tune updating procedures and frequencies
- Extend updating procedure to other WMO regions (already busy with this process)
- Working towards standardisation to improve data exchange



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...more than 27 Years GRDC

Thank you for your attention!

Please visit GRDC at
<http://grdc.bafg.de>

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