

Science for Solutions decade: HELPING Hydrology Engaging Local People IN one Global world IAHS Scientific Decade 2023-2032

IAHS Scientific Decade

Details of the Working Group - REHYDRATE - REtrieve historical HYDRologic dATa and Estimates

Describe the work and how your suggested working group will contribute to the goal(s):

Historic hydrologic data is still stored in printed documents and volumes in several countries worldwide. We aim to collect, retrieve, and digitize historical hydrologic data (e.g., discharge, precipitation, temperature, etc) in as many countries as possible, and make this data freely accessible in open data-repositories and ready-to-use by the hydrologic community. This working group will produce large-sample datasets that are essential tools for the assessment of differences and similarities between regions in the world.

Describe the methods you will use to achieve the goal(s): (i) A network of local scientists and experts from as many countries as possible will be engaged to collect the historical data sources to be digitized (and those already digitized). (ii) Historical time series will be digitized by using OCR (optical character recognition) software's, if possible. In case of dated or damaged ink, or in the presence of manual transcriptions, historical series will be manually digitized by crowd-sourcing the recovery of hydrological measurements within online citizen science projects (e.g., by using the Zooniverse platform). (iii)The digitized series will be quality-checked and made freely available in open access repositories.

Describe the (a) short-term, (b) the long-term and (c) the ultimate results you hope to achieve: Short term: worldwide assessment and collection of historical hydrologic data sources.

Long term: digitizing historical records and creating a worldwide historical hydrologic dataset.

Ultimate: making historical hydrologic dataset freely available on open access data repositories.

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