



International Association of Hydrological Sciences (IAHS):

Climate data to advance water research!

Who are IAHS and What do we do?

The IAHS community is more than 7000 strong with members in almost 200 countries contributing to the extensive programme of conferences and workshops, online discussions and IAHS publications.

IAHS is a non-profit making non-governmental scientific organization registered in the UK. Members are kept informed of IAHS activities and benefit from discounts on publications – those in the poorest countries receive free online subscriptions to Hydrological Sciences Journal and other discounts.

IAHS is one of the eight constituent associations of the International Union of Geodesy and Geophysics (IUGG) is the international organization dedicated to advancing, promoting, and communicating knowledge of the Earth system, its space environment, and the dynamical processes causing change.

Through its constituent Associations, Commissions, and services, IUGG convenes international assemblies and workshops, undertakes research, assembles observations, gains insights, coordinates activities, liaises with other scientific bodies, plays an advocacy role, contributes to education, and works to expand capabilities and participation worldwide.



Why do IAHS need climate change information?

Research and community efforts within IAHS activities addresses in particular changing climate and environmental conditions and unstationarity of hydrological processes. It is the International Commission of the Coupled Land-Atmosphere System (ICCLAS) of IAHS which focuses on research on the joint description and analysis of processes in both the terrestrial and atmospheric compartment. In particular for climate impact studies, the consideration of the land surface as longer term memory of the atmospheric processes is of crucial importance

The present scientific decade 2013–2022 of IAHS, entitled “Panta Rhei – Everything Flows”, is dedicated to research activities on change in hydrology and society. The purpose of Panta Rhei is to reach an improved interpretation of the processes governing the water cycle by focusing on their changing dynamics in connection with rapidly changing human systems. For this, easy access to high-quality climate data is a crucial component.

User story and interest in C3S Global Service:

Symposia on Climate Services in Montreal, 2019

ICCLAS of IAHS and C3S global service (contract C3S_422_Lot1_SMHI) will jointly organise a Symposia on “Using Climate Service in Scientific Research” at the IUGG General Assembly in Montreal (Canada), July 2019. This session will particularly promote the C3S, demonstrate research from various case-studies, and link different research groups for joint efforts in using climate data in impact research across the globe. The new climate data with easy access from CDS have large potential to advance impact research among IAHS members.

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How will climate change impact IAHS?

There is currently a lack of scientific understanding of climate-change impact on the hydrological cycle across the globe, so more scientific research is highly sought for by policy makers and water managers. These societal needs will stimulate the scientific community to put larger emphasis on effect studies, for which IAHS is the natural meeting place to compare and discuss scientific findings between various research groups across the globe.

Research questions linked to climate change is today fundamental in the scientific discourse and there is empirical evidence for ongoing intensification of the water cycle due to climate change.



User story and interest in C3S Global Service:

Scientific study on Seasonal Forecasts in West Africa

A methodological scientific study will be performed comparing the skill in seasonal predictions as provided through the global service with bias adjusted and/or dynamically downscaled data. The aim is to increase skills to predict the rainy season. Added information will also be given on droughts from comparing meteorological, agricultural and hydrological indices.

The study will be performed in West Africa to better predict onset and duration of the rainy season. The new method aims at supporting farmers for improved decision on sowing times and crop choices.

The research will be carried out in collaboration between scientists at KIT, SMHI and local research centers in West Africa. The goal is to publish the results in a scientific Journal and a manuscript will be submitted by the end of 2018. The publication will demonstrate the scientific value of the C3S and its Climate Data Store to stimulate uptake by the scientific community.