

The 8th Summer School

Linking scientific knowledge on water and land resources management into decision making support in Central Asia

1 Dates & Venue

Dates: **11 – 20 July 2022**

Venue: German Kazakh University, Almaty, Kazakhstan

2 Description

The 8th Summer School aims to introduce innovative methods and tools for the analysis and monitoring of water and land resources in Central Asia. After the completion of the Summer School students are expected to understand how climate change affects political, socio-economic and environmental conditions in Central Asia and how to link scientific results to policymaking as a solution proposal to water challenges in Central Asia

During the 10 days of Summer School, we will combine theoretical lectures and practical exercises with discussion sessions on the implementation of new methods and tools for managing water and land resources in Central Asia. The programme will include an in-depth introduction to geographical information systems (GIS), an overview of remote sensing applications for land and water resources monitoring, an introduction to climatological data analysis, and an introduction to GRACE satellite missions, as well as basics of writing policy briefs. For the practical exercises in data analysis, the participants will use open source tools such as QGIS (www.qgis.org) for spatial analysis, and R (www.r-project.org) for statistical analysis. For the final presentation, participants are expected to draft a policy brief proposal, based on the scientific results from the practical exercises. Two days of the Summer School are reserved for a field trip around Almaty.

The Summer School is organized within the frame of the CAWA-Green project as a contribution to the Part of the Green Central Asia Initiative launched by the German Federal Foreign Office.

Programme details will be published on the CAWA Green Project www.cawa-project.net website in due time.

Language

The courses will be given in English; hence the knowledge of the English language is a prerequisite to participation.

Requirement

All participants are required to have a vaccination certificate for the COVID-19 virus, as this is mandatory to enter Kazakhstan.



Organizers

CAWa-Green- Project

www.cawa-project.net



German-Kazakh University

Master program "Integrated Water Resources Management"
Almaty, Kazakhstan

www.dku.kz, www.academic-waters.org



Martin-Luther University

Halle Wittenberg, Germany

<https://www.uni-halle.de>



Helmholtz Centre Potsdam

GFZ German Research Centre for Geosciences

Section Hydrology

Potsdam, Germany

www.gfz-potsdam.de



Potsdam Institute for Climate Impact Research (PIK)

Potsdam, Germany

www.pik-potsdam.de



In cooperation with:

Deutsche Gesellschaft für internationale

Zusammenarbeit (GIZ) GmbH

Bonn, Germany

www.giz.de



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3 Participation and Funding

The Summer School addresses dedicated young professionals and students with an interest in geoscientific tools for Integrated Water and Land Resources Management and its practical implementation in policymaking. Eligible are participants from the following Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, as well as Afghan students currently residing **only in Kazakhstan**.

The CAWa Green project provides funding for travel and accommodation expenses and daily allowance for the accepted participants.

4 Application

Interested students and researchers are expected to apply via the Summer School application tool (<https://events.gfz-potsdam.de/cawa-green-summer-school-2022/home>). Applicants are requested to upload their CV and a motivation letter, which describes their background and their expectations in detail. All documents have to be provided in the English language.

Participants will be selected based on their application documents (motivation letter, CV).

Deadlines

Submission of application form and abstract **15 June 2022**

Notification of acceptance **20 June 2022**

5 Preliminary Program / Lecturers

- Introduction into Hydrology (incl. MODSNOW) ; **Dr. Abror Gafurov** (Hydrology Section, GFZ German Research Centre for Geosciences Potsdam, Germany)
- Estimation of Water Resources in Central Asia using GRACE/GRACE-FO ; **Dr. Milena Latinovic** (Hydrology Section, GFZ German Research Centre for Geosciences, Potsdam, Germany)
- Radar Remote Sensing ; **MSc Najibullah Kakar** (Global Geomonitoring and Gravity Field, GFZ German Research Centre for Geosciences, Potsdam, Germany)
- GIS & Spatial Analysis Tools ; **Dr. Muhammad Usman** (Institute of Geosciences and Geography, Martin-Luther-Universität Halle Wittenberg, Halle, Germany)
- Climate and Climate Change in Central Asia ; **MSc Paula Aschenbrenner** (Climate Resilience, Potsdam Institute for Climate Impact, Potsdam, Germany)
- Policy brief development and decision making proposals based on the scientific outcomes from the Summer School Sessions.