



Co-funded by the
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WATER DIPLOMACY
PROJECT ERASMUS +
101082976 - HWCA
ERASMUS-EDU-2022-CBHE

Strengthening Higher Education in the Water Sector for Climate Resilience and Security in Central Asia

101082976 – HWCA - ERASMUS-EDU-2022-CBHE (HWCA)

Kazakh-German University (DKU)

Briefly about the DKU

- One of the leading international HEI in Kazakhstan
- In 2008 a common agreement between Kazakhstan and Germany - a legal and political base for the DKU
- More than 20 years of experience in higher education programs with German HEIs
- Innovative approaches to teaching and scientific activities, highly qualified teaching staff, openness to new areas of training
- Contribution to the sustainable development of CA
- DKU´s alumni fluent in two foreign languages
- International program accreditations: ACQUIN

Total number of students and academic staff

- Total number of students – up to 800
- Total number of academic staff – up to 100

Structure of DKU

- Faculty of Engineering & Information Technology
- **Faculty of World Politics**
 - **MA Integrated Water Resource Management**
- Faculty of Economics & Business

Research Institutes:

- **Centre for Natural Resources and Sustainable Development (DKU CRS)**
- Research Institute for International and Regional Cooperation (RIIRC)
- Centre for Research & Graduate Education (CRGE)

DKU CRS



- established to consolidate education and applied research for sustainable societies in the Central Asian Region
- in 2016 received the status of the UNESCO Chair for Water Resources Management in the Central Asian region

Innovative approaches along the three main tracks:

1. Generation, transfer, and exchange of knowledge, technologies, know-how, and competencies;
2. Education;
3. Networking with academic communities to enhance the water-energy-land-ecosystems-mobility nexus against the backdrop of climate change in Central Asia.

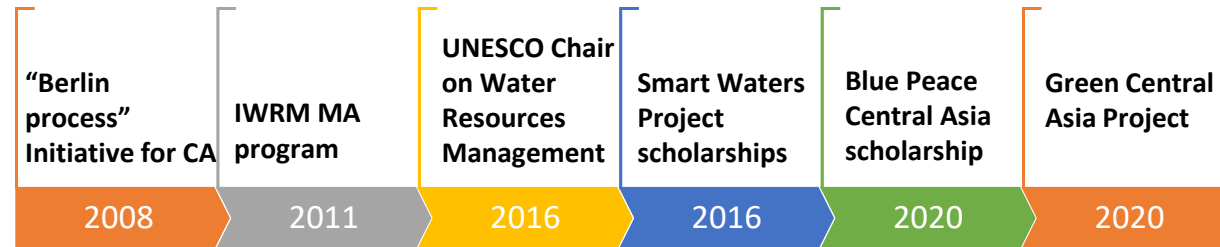
DKU CRS is focused on:

- the development of natural science researchers in Central Asia and Afghanistan;
- promoting the development of scientific and practical potential on the problems of managing natural resources in the countries of the region;
- strengthening cooperation with international, regional, and Kazakhstan scientific organizations.

Integrated Water Resources Management Master Program

Faculty: World Politics
Program: Management
Educational program: IWRM

IWRM UNESCO Chair holder:
Barbara Janusz-Pawletta



>100

Alumni in 2011-2022

12

Flying Faculty
Professors

• **International**

Freie Universität Berlin



• **Regional**

5 Central Asia countries
+ Afghanistan



• **Interdisciplinary**

Technical Social
Economical Political
sciences



Auswärtiges Amt



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



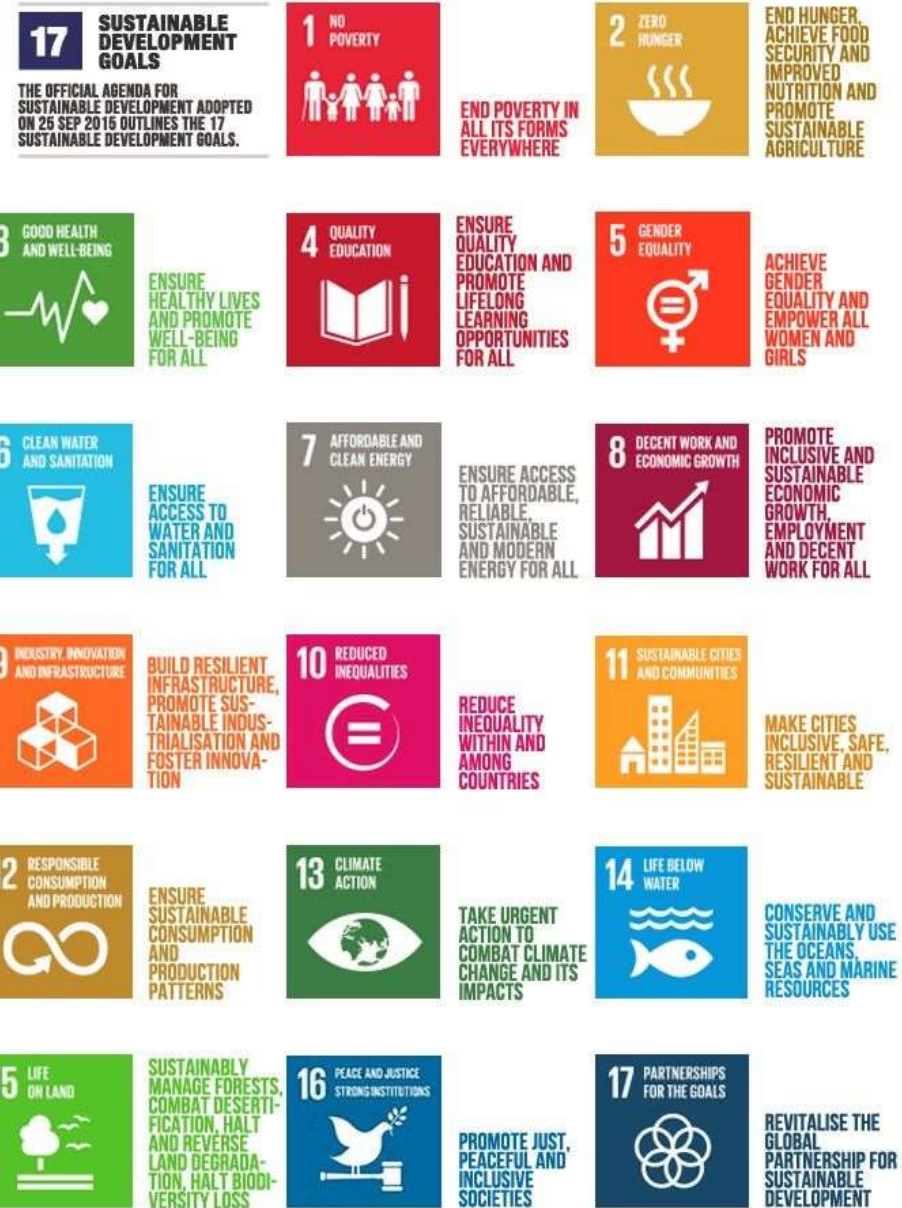
IWRM MA courses

Natural and Technical Science

- Water System and Climate
- Land and Water Interaction
- Data Management, Analysis and Monitoring (GIS)
- Hydrological Modeling
- Hydraulic Engineering
- Environmental Planning, Water Usage and Treatment
- Water, Hygiene and Sanitation
- Project. Field research

Social, politics, economy sciences

- Water Diplomacy
- Water and Climate Legislation
- Water Economy
- Climate, Water, Energy Nexus
- Water Governance and Cooperation
- Integrated Watershed Management
- Strategic Management
- Project Planning and Management



Local staff



Dr. iur. Barbara Janusz-Pawletta (PhD)
Vice-President for International Cooperation,
UNESCO Chair Holder in Water Management in Central Asia at
DKU



Larissa Kogutenko (PhD)
Integrated Water Resources Management Master Program
Coordinator
UNESCO Chair Holder in Water Management in Central Asia at
DKU



Viktoria Krylova (PhD)
Project Coordinator at DKU CRS
Land Use Specialist

Guest lecturers



Lutz Mez
Dr. habil. and venia legendi in Political Science



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National Universität, Professor of Environmental Sciences,
National University of Mongolia



Heinrich W. Wyes
Post graduate studies in system analysis and macro economics



Denis Krutov
Candidate of technical sciences



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Dr. rer.nat. Professor of the Freie Universität Berlin, Institute of
Geographical Sciences, Physical Geography



Jenniver Sehring
PhD in Political Science and Social Anthropology, IHE Delft



Gernot Kayser
Doctor of Engineering, TU Dresden

Thematic clusters

The following subtopics are covered under each thematic cluster:

Climate and Environment

- Hydrological cycle in Central Asia
- Mountain hydrology (snow and glaciers)
- Climate impact assessment on water resources
- Application of remote sensing data in hydrology
- Hydrological forecasting
- Climate variability and change
- Groundwater resources and modeling
- Flood Hazards and Disaster Risk Reduction

Water law and governance

- water governance
- water law
- water cooperation and diplomacy
- policy analysis

Socio-economics

- natural resources management
- environmental policy and economics
- decision aiding systems
- hydro-economic modelling
- water-energy-food nexus
- agricultural policy and rural development
- stakeholder analysis

Water infrastructure and management systems

- (industrial) wastewater management
- (industrial) wastewater treatment/reclamation
- water quality
- water treatment
- urban water management
- sewage sludge recycling
- banks erosion
- soil remediation
- water infrastructure



Executive editors



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Central Asian Journal of Sustainability and Climate Research

<https://cajscr.com/>

Subject areas

Climate

- Climate change mitigation and adaptation
- Climate science
- Climate justice
- Effects of global climate change on development and sustainability
- Climate policies and strategie

Energy

- Renewable Energy, Sustainability and the Environment

Land / Agriculture

- Vegetated soil behavior
- Soil-natural fiber biodegradation
- Soil-plant-atmosphere interaction

Sustainable Mobility










- Development and realization of national policies and international treaties for sustainable development
- Implementation and monitoring of policies for sustainable development
- Changing consumption and production patterns
- Integration of environmental, social, human, and economic goals
- Corporate sustainability programs
- Sustainable products, food, and agriculture
- Design, construction, and operation of high-performance green buildings

Editor-in-Chief



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Associate Professor of Environmental Science and Management, Institute for Environmental Science and Management, University of Applied Sciences, Germany

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The contribution of the university to the socio-economic development of the country

- Educating future professionals
- Enabling knowledge-use
- Generating knowledge for the transformation of society
- Creating a knowledgeable, responsible, and skilled workforce for economic growth, incorporating creativity and innovation, and leveraging
- Empowering women with education

Project team

DKU Project Lead: Dr. iur. Barbara Janusz-Pawletta (PhD)

DKU Project Coordinator (Water Resources): Larissa Kogutenko (PhD)

DKU Project Coordinator (Land Use): Viktoria Krylova (PhD)

DKU Project Co-Coordinator (Land Use): Yuliya Borissova (PhD)

DKU Project Assistant: Milena Oravcová (LL.M.)

The contribution of the university to the implementation of the goals and objectives of the HWCA project

- Development of a regional program for continuous professional development and research (Water resources management and Water diplomacy) to strengthen sustainability
- Experience sharing on Water Diplomacy and Governance MA program
- Access to Online Course on Academic writing for MA students
- Opportunities for publishing scientific papers for young researchers

University expectations from the implementation of the goals and objectives of the HWCA project

- 1) Enhance capacity building through training of new generation of managers and decision-makers for water sector of CA
- 2) Increase the number of scientific publications as to foster research activities in climate change and water stress, using interdisciplinary, cross-sectoral, and cross-country dialogues

Thank you for your attention!

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