

## **Item 3. The Transboundary Nexus Assessment Methodology TBNA and similar approaches**

# **Nexus Training for Public Administration and University Students in Central Asia**

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**Central Asia is one of the regions most prone to conflicts over water and the associated availability of other resources.**

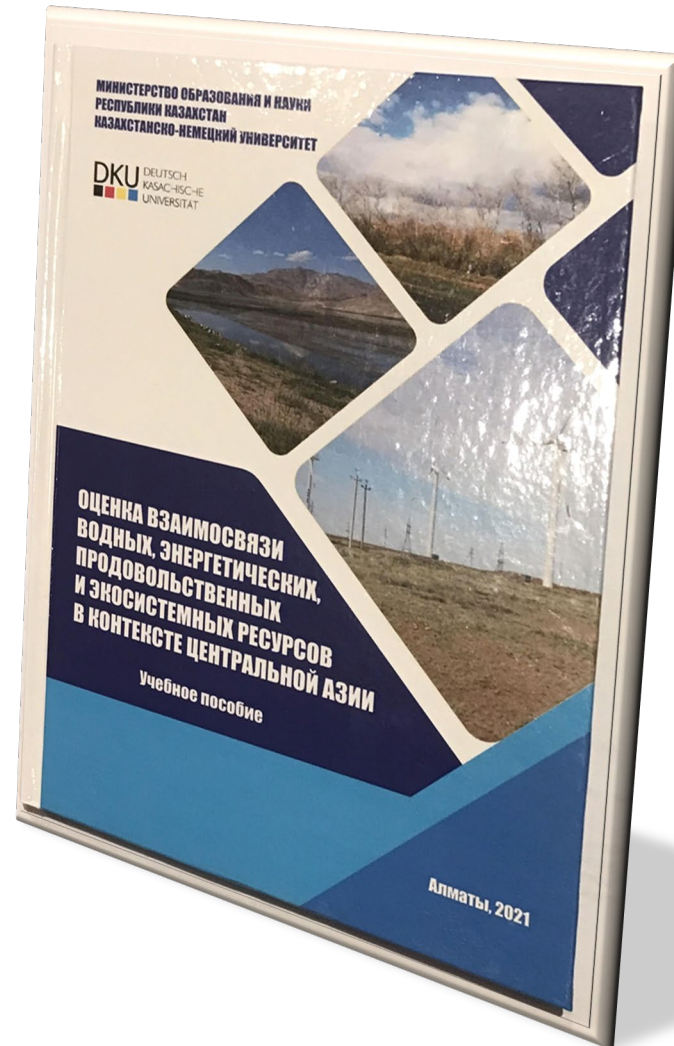
- **The policy of each individual country in the field of water management affects the availability of water in other CA states.**
- **The economies of the CA countries are already developing in the face of growing water scarcity, which leads to development problems.**
- **The main results of this are the growth of political tension and the deterioration of socio-economic and environmental conditions.**
- **KGU (DKU) as an educational institution occupies its own niche on capacity development to strengthen cooperation in this huge and complex problem.**



# Training manual “Water-Energy-Food-Ecosystems Nexus Assessment in the Context of Central Asia”

DKU, UNECE, Ministry of Education and Science of Kazakhstan.

- Can serve as an **introduction** to an integrated approach to address transboundary macro-regional challenges.
- Can be used to **expand knowledge** to a wide audience, including government officials in water management, food security, energy, ecosystem conservation and infrastructure development.
- It is intended as a **methodological guide** for training the specialists of higher education institutions



- The teaching guide will contribute to the creation and strengthening of “capacity to support mutual learning across watersheds, sectors and states, thus facilitating the experience exchange and strengthening of local cooperation between countries”
- With the successful implementation of this manual in CA, we hope this experience can be useful for use in other regions of the world.

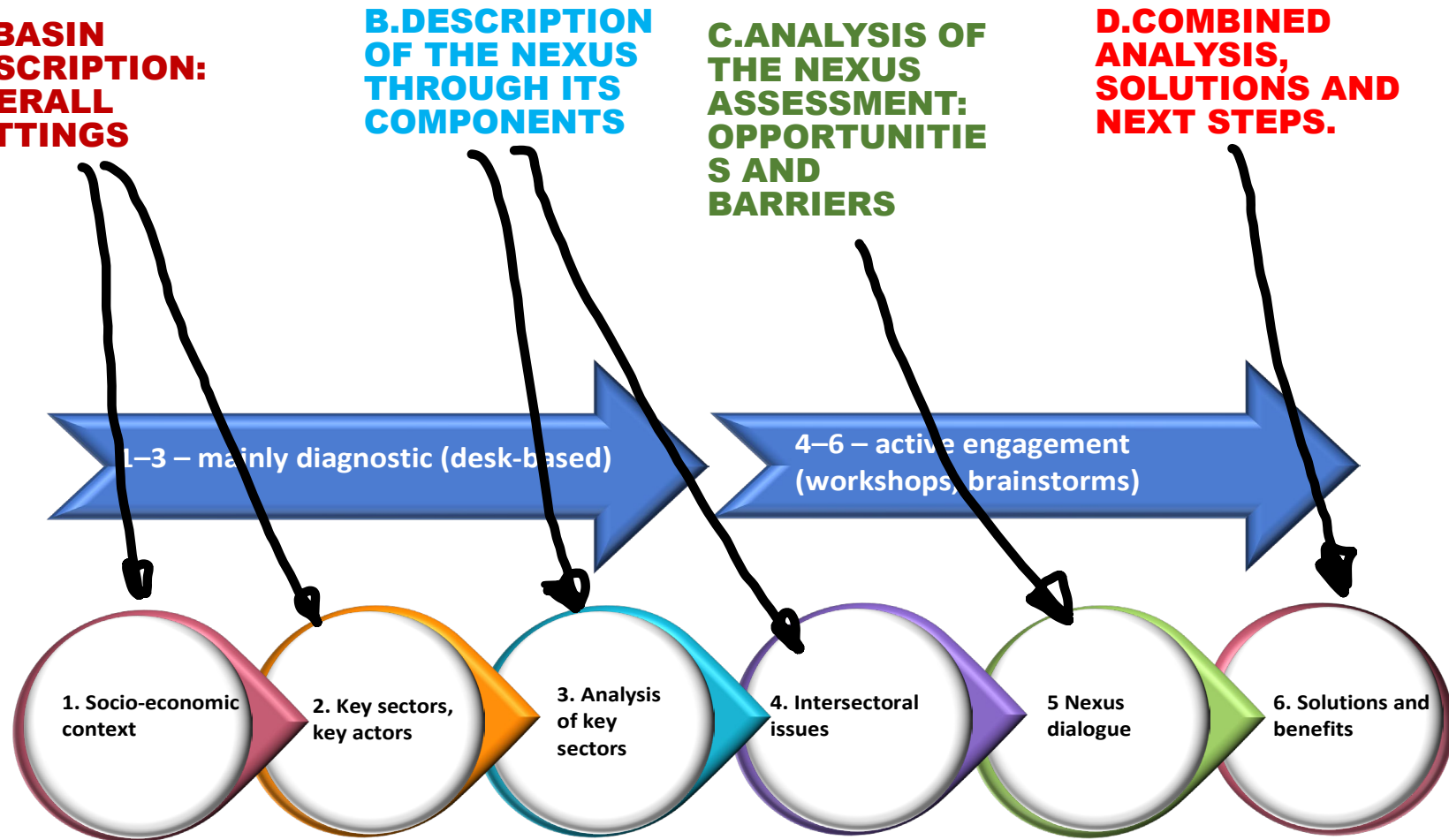
# Content and Purpose

- Describe the **prerequisites** for an integrated participatory transboundary approach to assess and develop shared resources.
  - Explain the **Specific Methodology** of the **Nexus Assessment** developed by the **UNECE** and the «**Convention on the Protection and Use of Transboundary Watercourses and International Lakes**»
- Put into practice a way how **the above methodology** developed under the **Water Convention** can be further **trained** to different audience to conduct such **complex transboundary nexus assessment** in a region where countries have opposing views on shared resources.

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## FOUR PARTS AND SIX STAGES OF THE WATER CONVENTION NEXUS ASSESSMENT PROCESS



### MODULE I

- **STAGE 1:** identify the population's needs for the basin, as well as national needs that depend on the basin. This develops understanding of socio-economic condition of the basin, its resource base and management structure
- **STAGE 2:** identify the needs of existing sectors and institutions. In this way, key sectors and stakeholders are identified that can contribute with their knowledge and influence on subsequent actions.

### MODULE II

- **STAGE 3:** analyze the key sectors by using the cause-effect relationship "aspiration-pressure-state-impact-response".
- **STAGE 4:** detail the issues across sectors when considering the industry-specific plans and links with other sectors during direct discussions at the workshop.

### MODULE III

- **STAGE 5:** jointly generate the interrelation diagrams that include the components of nexus assessment of water, food, energy, ecosystems, and other identified interrelations.

### MODULE IV

- **STAGE 6:** discuss and identify possible solutions to the most pressing cross-sectoral issues. Stakeholders offer various solutions, such as land use management, cooperation agreements, political decisions, infrastructure projects or economic instruments.

Given the challenges of discussion of the issue of shared resources and **to make the learning process not biased, free from prejudice, independent of own and the public interest** – it was proposed do not use for training the real cases/countries! It was decided to use **models** - that is, to describe situations **in fictional countries**, but in situations that are quite possible in real life in the CA region.

Therefore, students will **concentrate more on content and substantial aspects** of the training.

# What we do in the framework of the 2 days training on the «Model Modular Methodology for Teaching Nexus Assessment» (DKU. USAID)

**1) Theoretical part - 1 day (depends on the goal and preparedness of the audience).**

**2) Practical part - 1 day.**



<b>ICE-BREAKING!</b> Presentation and discussion of the context of the case.	All together. Distribution of students by country and distribution of roles by key stakeholders.	<b>ANNEX -1: Overall description of a presented case.</b>
<b>MODULE-I (100')</b>	In different groups <b>by country:</b> Team-A, Team-B, Team-C	<b>A. BASIN DESCRIPTION: OVERALL SETTINGS</b>  <b>ANNEX-2, 3 и 4 (description of each country)</b>  Purpose: to convey to other teams the conditions and needs of their country.
<b>MODULE-II (120')</b>	In groups <b>by sector.</b> In each group there are representatives from all three countries: Team - A, Team - B, Team - C.	<b>B. DESCRIPTION OF THE NEXUS THROUGH ITS COMPONENTS</b>  <b>ANNEX- 5, 6 ,7 и 8 (description of each sector)</b>  Purpose: to present the characteristics and specifics of <b>a particular sector and its relationship with other sectors.</b>
<b>MODULE-III (95')</b>	In different groups <b>by country:</b> Team-A, Team-B, Team-C	<b>C. ANALYSIS OF THE NEXUS ASSESSMENT: OPPORTUNITIES AND BARRIERS</b>  Purpose: To create a <b>nexus profile</b> to identify benefits and challenges <b>for each country in all sectors.</b>
<b>MODULE-IV (85')</b>	<b>All together</b>	<b>D. COMBINED ANALYSIS, SOLUTIONS AND NEXT STEPS.</b>  Purpose: Search for compromises and mutually beneficial solutions. Development of a <b>general nexus profile – ANNEX-9</b>
<b>The end of the game.</b>	All together	Comments, analysis and lessons learned, feedback.

# What has been done and what needs to be done?

- **Based on the training manual, 6 model case studies with different scenarios were prepared:**
  - (1) problems with the use of water for electricity generation and irrigation in agriculture,
  - (2) poor state of infrastructure and inconsistency of actions of the basin countries,
  - (3) man-made disasters,
  - (4) groundwater pollution,
  - (5) importance of taking into account different climate forecasts, and
  - (6) reduction of tension between upstream and downstream countries of the watercourse.
- **There is a joint process of approbation of this methodology.** Approbation have already been completed in Kazakhstan, Tajikistan, Kyrgyzstan and Uzbekistan (in total 102 participants from government, education and scientific institutions, NGOs). Remained Turkmenistan.
- **At the regional seminar, this approach was agreed with the heads of various specialized higher educational institutions and civil service academies of all CA countries.**
- **Positive feedback** has been received and a desire to use the presented methodology has been expressed.
- **It is planned that the proposed methodology will be considered and adopted** in accordance with its own rules, requirements, procedures and time frames for organizations and universities in each country in the region.
- **The nexus assessment training methodology presented by us is applicable to conducting a nexus assessment in a real situation** in a real macro-region with the participation of all its stakeholders.

