



**World Water Congress XV**  
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# **Towards establishing a water management knowledge system in Central Asia**

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Scientific Information Center of Interstate Commission for Water  
Coordination in Central Asia



# Key water challenges in Central Asia



**Paramount importance of  
knowledge-driven changes**

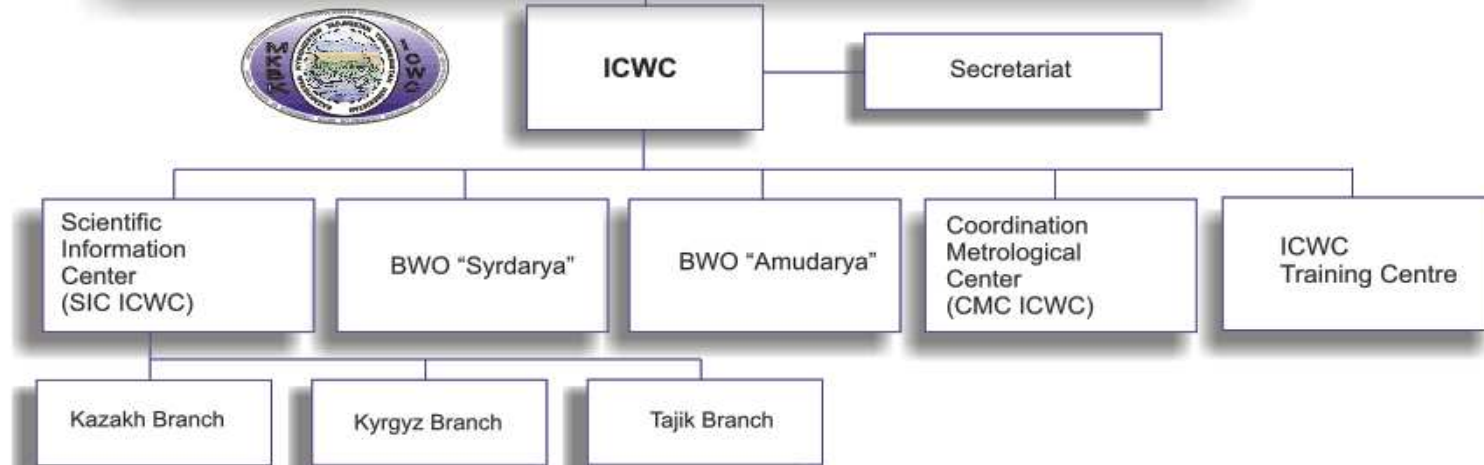
# Knowledge constraints

- Limited access to available knowledge and absence of effective knowledge transfer mechanisms.
- Knowledge of various links between water, food, energy, ecosystems and climate change is incomplete, and nested within different sectors and scientific communities. This is especially so in the transboundary water management setting.



# STRUCTURE of Interstate Coordination Water Commission of Central Asian states

## FOUNDERS OF ICWC





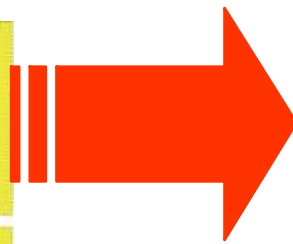
# SIC ICWC: What we do

- Established in 1992
- Accredited in Uzbekistan
- Branches in Kazakhstan, Kyrgyzstan and Tajikistan
- Provides technical and administrative support to ICWC activities in the region and worldwide



### Information System to Support Policy Makers & Practitioners

Database, models, future scenario and analytics: BWOs, WMOs, hydrometeoservices, water users



### Locally Relevant Knowledge Generation & Sharing

Joint projects, research & networking: WMOs, research institutions, regional organisations, international partners (GWP, IWMI, GIZ, ICARDA, SDC, WWC, etc), professional networks (INBO, ICID, IWRA, etc)

### Capacity Development in Partnership with Educational Institutions

Face-to-face & distance learning: Kazakh National Technical University, Kazakh-German University, Kyrgyz National Agricultural University, Kyrgyz National Agrarian University, Kyrgyz-Russian Slavic University, Tashkent Institute of Irrigation and Melioration, UNESCO-IHE, Moscow State University, etc.

### Innovative Cycle of Knowledge Transfer

From *knowledge generators* such as research institutions through *information centers* where information is translated into user-friendly and easily understandable language to *information disseminators* who convey it to *farmers* and receive their feedback

The screenshots show the CAWATER.info website interface for different regions and data types:

- AMUDARYA:** Shows a map of the Amudarya river basin with various data points and a table of information.
- SYRDARYA:** Shows a map of the Syrdarya river basin with data points and a table.
- ARAL SEA:** Shows a map of the Aral Sea region with data points and a table.
- ANALYTICS:** Shows a landscape image with a table of analytical data.

The screenshots show additional website content:

- News Article:** A news article titled "База знаний «Информация и управление водными ресурсами»" (Knowledge Base "Information and Management of Water Resources") with a photo of a field.
- GIZ Map:** A map of Central Asia with the GIZ logo and text in Russian: "Национальные центры водного регулирования и управления водными ресурсами Центральной Азии" (National centers for water regulation and management of water resources in Central Asia).
- Map of Central Asia:** A map of Central Asia with the GIZ logo and text: "Карты Центральной Азии" (Maps of Central Asia).

The screenshots show further website content:

- Regional Overview:** A map of Central Asia with a legend and text in Russian: "Ветеринарно-информационный центр Республики Казахстан" (Veterinary information center of the Republic of Kazakhstan).
- Knowledge Base Search:** A search page for the "KNOWLEDGE BASE" with a search bar and filters.
- Data Table:** A detailed table with multiple columns and rows of data, likely representing water resource information.

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**IMRM in Fergana project (SDC) – Kg, Tj, Uzb**

Strengthened institutional & legal framework for IWRM; social mobilization; water saving; how to live under water stress

**Stabilization of the Dried Bed of the Aral Sea, 2005-2007 & Monitoring of the Amudarya River Delta, 2009-2012 (GIZ)**

Ecosystems need

**Water & Land Productivity Improvement at Plot Level (SDC) – Kg, Tj, Uzb**

Focus on end water users; innovative cycle of knowledge transfer to farmers

**Regional Research Network “Water in Central Asia” – CAWa Project**

A sound scientific and a reliable regional data basis for the development of sustainable water management strategies in Central Asia.



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**Политические и правовые аспекты управления водными ресурсами в Центральной Азии и основные пути его совершенствования**

В начало | Мои курсы | Additional resources | ПГ/ВР-ЦА | Режим редактирования

**Навигация**

- В начало
- Мои домашние страницы
- Страницы сайта
- Мой профиль
- Список курсов
  - ПГ/ВР-ЦА
    - Участники
    - Важное
    - Общая информация о курсе
    - Подготовительные мероприятия и общие материалы курса
    - Модуль 1. Введение в курс
    - Модуль 2. Опыт правового регулирования

**Общая информация о курсе**

Дистанционный курс «Политические и правовые аспекты управления водными ресурсами в Центральной Азии и основные пути его совершенствования», разработанный в рамках программы сотрудничества Аграрного Центра (Баранский Центр по продовольственной безопасности) Московского Государственного Университета им. М.В. Ломоносова и Научно-информационного Центра Многогосударственной Координационной Водохозяйственной Комиссии (НИЦ МХВК) Центральной Азии при поддержке Всемирного банка.

**Основные цели курса:**

1. Формирование у слушателей целостного представления о водных ресурсах Центральной Азии и в каждом государстве региона, о национальной и международно-правовой базе в действующей сфере как системы норм, которые направлены, соответственно, на обеспечение стабильности общественных отношений внутри государства и межгосударственных отношений между странами Центральной Азии в данной сфере общественных отношений;
2. Передача слушателям необходимых знаний по действующему национальному и международному водному праву, национальной и региональной водной политике для правильного понимания и объяснения внутриаполитических и внешнеполитических событий, связанных с водными отношениями в Центральной Азии, применение этих знаний на практике;

**Задачи обучения:**





# Information flow between different actors in agricultural extension services

Knowledge Base

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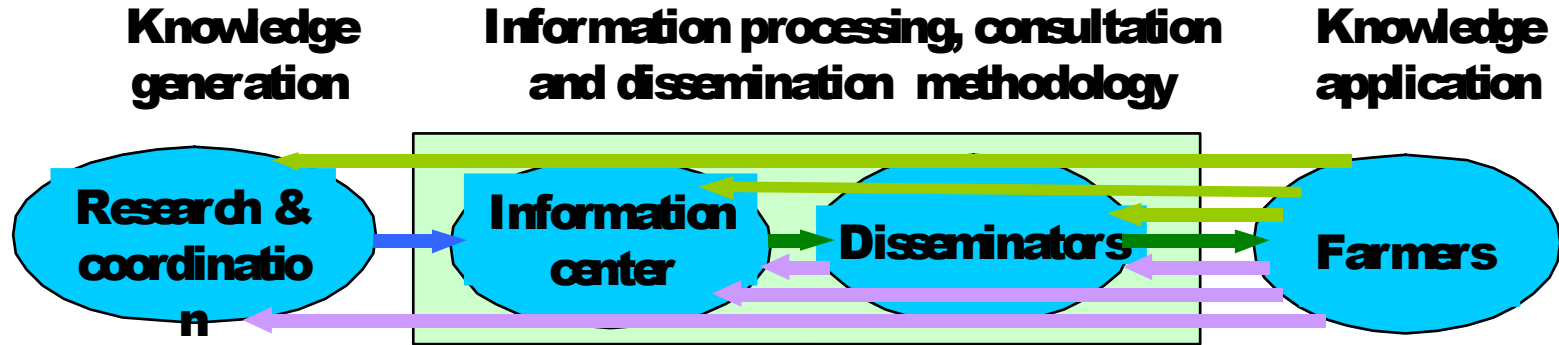
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Farmers needs/innovations assessment



Requested information/training/consultations on new technologies



Feedback on consultations/trainings (quality control)



# KNOWLEDGE BASE

## Knowledge Base Rubricator

1. WATER RESOURCES	2. WATER RESOURCES USE	3. AGRICULTURE	4. LAND RECLAMATION	5. LAND DEGRADATION AND DESERTIFICATION
6. HYDROECOLOGY	7. CLIMATE CHANGE	8. WATER GOVERNANCE AND MANAGEMENT	9. WATER LAW AND POLICY	10. ECONOMIC AND FINANCIAL ASPECTS
11. WATER AND EDUCATION	12. WATER AND ETHICS	13. DECISION SUPPORT SYSTEM	14. SUSTAINABLE DEVELOPMENT, GREEN GROWTH, AND SECURITY	15. GENDER AND GENDER POLICY

## Water Resources



1.1. Surface water

1.1.1. Rivers

1.1.1.1. Flow regulation



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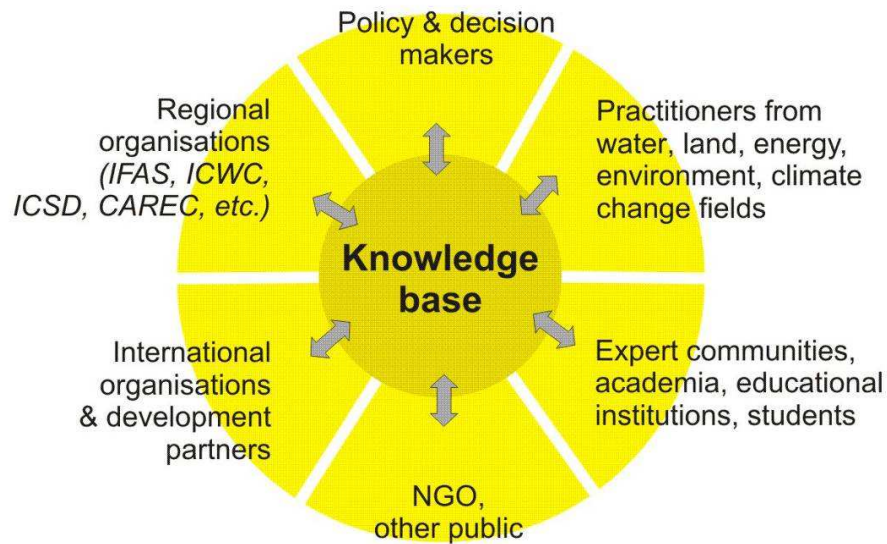
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## Knowledge providers and consumers



Plans to renovate the existing knowledge base on two important ways:

- Enhance regional ownership through the involvement of a broader community of experts and practitioners across the region;
- Focus on target groups' (knowledge consumers) needs and preferences in knowledge dissemination in order for them to use knowledge in a meaningful and effective way.

Add value through:

- adaptation of global and regional knowledge to local conditions,
- facilitation of regional knowledge exchange,
- continuous learning and education,
- promotion of knowledge transfer to end users,
- support to decision makers and practitioners.

# Way Forward

Establish Water Management Knowledge Centres in Central Asia as part of global knowledge hub (FAO, GCIAGR, UN-Water, ICID, etc):

- be a part of public water and agriculture governance system, be linked to environmental sector and connected to knowledge sources at regional and global levels;
- aim at long-term improvement of water and natural resources use and conservation for the benefit of people and ecosystems;
- identify actual needs of practitioners, work among practitioners, strive to meet their demands, and bridge a gap between science and practice;
- rely on experienced practitioners and on practicing scientists, who deal with both research and practical applications
- able to validate proposed solutions on pilot sites;
- suggest affordable solutions that are community focused, cost effective, feasible, and environmentally friendly.