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**Capacity Development for
Integrated Water Resources Management and
Transboundary Water Resources Management in Central Asia**

Central Asia Capacity Development Network for Water

**Scientific Information Centre of the Interstate Commission for Water Coordination
of the Aral Sea Basin (SIC-ICWC) and
the UNESCO-IHE International Institute for Water Education**



www.sic.icwc-aral.uz www.cawater-info.net

UNESCO-IHE
Institute for Water Education 

www.unesco-ihe.org



UNESCO-IHE
Institute for Water Education 

Water Sector Rehabilitation in Central Asia



Key Problems:

- Long term sustainability of irrigated agriculture systems (e.g. water efficiency, salinization)
- Deteriorating education and training capacity (human resources development requirements)
- From national to international waters (transboundary allocation and monitoring issues)
- Changing water use (from agriculture to industry to power)
- Climate change



IWRM and IRBM priorities in Central Asia

Key Issues:

- Future (economy, demography, climate, land use, food security, etc.) scenario's
- The water – hydropower nexus. The development of shared planning and decision frameworks
- Institutional development; responsibilities and mandates of water management and planning institutions. Joint monitoring and database development (Carewib, CA Water Info, etc.)
- Water education and research responsibilities; Role of universities and specialized institutions.

ASBmm

Enter Registration

HOME PROJECT DESCRIPTION HELP NEWS HISTORY FAQ DEVELOPERS FORUM Pyc / Eng

ASBmm – integrated model for assessment of aral sea basin development scenarios.
Water sector, ecology, hydropower, agriculture, climate change, socio-economic assessment, new technologies in computer modeling and forecasting.

- * If you are a journalist, student or a novice in hydrology, hydraulic engineering or energy who wants to know about characteristics, problems and prospects of development in the Aral Sea basin, please, focus attention on ASBmm.
- * If you are a professional in the water sector area and water and energy resources management who is interested to know about alternative water sector development scenarios in riparian countries of the Aral Sea basin, with consideration of socio-economic, environmental, energy and climatic factors, optimization and trade-off solutions, please, focus attention on ASBmm.

This is a unique product in terms of wide coverage of water-related processes and tendencies in the Central Asian countries.

Authorization
With the authorization system you can always continue your work from your last action made.

Navigation system
Step-by-step navigation simplifies the calculation process and helps you to avoid "getting lost" in your projects.

Long-term forecasts
The forecasting system produces results up to 2035.

See also

- 28 february 2011 [Regional training workshop](#)
- 1 november 2010 [Round-table on ASBmm](#)

The Aral Sea Basin Management Model

Uzbekistan Kazakhstan Kirghizstan Turkmenistan Tadjikistan



A Certified Education and Training Program

Global Objective

- Develop Human and Institutional Professional Capacity in Transboundary Water Management through a Water Resources Training Network of Specialized Institutions and Universities.
- Establish a Central Asia Capacity Development Network for Water including a sustainable institutional framework with strong links to education and training partner institutions inside and outside the region

Experiences and Requirements

- Central role for SIC-ICWC training centre based on mandate and recent experience (over 5000 persons trained on all levels)
- The Fergana valley experience in the joint SIC-ICWC and IWMI project for IWRM with WUA involvement and modernized monitoring systems
- The development of the ASBmm; high level training of planners and decision makers

Institutional Requirements

- Required long term commitment of international financing organisations (donors) and regional governments supportive with (fellowship) funding programs and national human resources development policies and programs for water (e.g. as in Kazakhstan)





Methodology

Global Objective

- create a true regional project and strengthen the education and training capacity within the SIC-ICWC branches and participating / invited Universities and Education and Training Centres in all the Central Asia countries in support of the establishment of a regional water management education and training network

Specific Objectives

- increase regional capacity to deliver water management training programs on the basis of specifically assessed (national and regional) training needs (emphasis on training of trainer activities);
- Introduce new integrated water management concepts through publications and reports, study tours, seminars, and workshops;
- develop and pilot policy and institutional reforms that support improvement of current water management practices and environmental sustainability;
- strengthen the platform for (internet based) exchange of information and opinion between participants from all Central Asian countries and related parties of interest to the Asia Pacific Region;
- implement a business model in order to guarantee sustainability of the SIC-ICWC Training Centre and the Capacity Development Network towards the future (receive a "return on investment" from the implemented actions), through a combination of donor support and local and regional contributions



Training Program Client Structure

Responsible hierarchy	Target groups	Type of training and facilities	Project synergy	Main thematic directions	Expected number of alumni per year
High level (TC HQ)	Heads of departments and divisions of Ministries of agriculture and water management, environmental protection; economy and finance; foreign affairs and justice	Training of Trainers, Training of trainees, Interactive discussions, e-learning and online training	ADB,	<ul style="list-style-type: none"> ■ Transboundary water resources management; ■ International and national water law and policy; ■ Strategy and approaches to improvement of irrigated agriculture; ■ Tools for implementation of IWRM in basin and at national levels 	300 p
Middle level (TC HQ and national branches)	Heads of Basin and systems water management organizations, NGOs dealing with water management, representatives of agriculture, research and water education institutions	Training of trainees, Interactive discussions, e-learning and online training	SDC, GTZ,	<ul style="list-style-type: none"> ■ Basic principles of IWRM; ■ Advanced irrigated agriculture; ■ Ecosystem and hydro-informatics approaches; ■ Water resources information system development; ■ Water allocation planning; ■ Financial and economic sustainability of water sector; ■ Public awareness and participation 	700 p
Low level (National branches and local stations)	WUAs, farmers, extension services, representatives of agriculture and water education and research institutions	Training of trainees, Practical training	SDC	<ul style="list-style-type: none"> ■ IWRM; ■ Water use and accounting on farm level; ■ Water and land productivity management: irrigation and drainage 	500 p

Main structure and framework for organization of water sector training by the ICWC Training Centre (more project synergies exist than are mentioned in this diagram). Sponsors and donors may become linked to specific elements of the program based on their experience and priorities. Special attention to give to international joint degree programs using for example EU Erasmus Mundus e.a..



Training of Trainers Initiative and Follow Up

Continue SIC-ICWC TC Training of Trainers Central Asia (4 main training themes) initiative

- Integrated Water Resources Management
 - Advanced Irrigated Agriculture
 - International Water Policy and Law
 - Regional Cooperation on Transboundary Rivers
- and**
- start actual training on various levels including special water leadership training and continue integrated water management modeling in support of role plays and decision support.

Identify partner institutions to establish the Central Asia Capacity Development Network; formulate proposal; organize institutional support and financing

- Coordinate with current initiatives (e.g. Amudarya Basin Network, SIC-ICWC Training Centre, Universities and Water Institutions, UN Regional Centre for Preventive Diplomacy, etc.)
- Integrate with ongoing projects and programs such as the ASB Program 3, Asia Pacific Water Forum Knowledge Network, German Water in Central Asia and other regional projects
- Identify and secure international support and funding through international financing agencies including for example IFAS (ASBP - 3) EU, USAID, ADB and specific donor countries.
- Secure institutional support from the countries of the region by developing national human resources development programs including international fellowship programs for MSc and PhD





Thank You!

Questions and Remarks

