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CENTRAL ASIA REGIONAL WATER INFORMATION BASE PROJECT

**'CAREWIB'** 

## Report for 1 January - 31 March 2011

April 2011

Tashkent - Geneva

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### 1. Introduction

The "Central Asia Regional Water Information Base (CAREWIB)" Project was developed in support for the ASBP-1 approved by the decision of the Heads of State on 11 January 1994 (Project 2 – "Data base and management information system for water and environment") and ASBP-2 approved by the IFAS Board on 28 August 2003 (Item 6 – "Reinforcement of material/technical and legal basis in interstate organizations, development of the regional information system designed to manage water resources of the Aral Sea basin").

The CAREWIB Project is implemented within the framework of the Swiss Regional Medium-Term Program for Central Asia 2002-2006 in support for "Natural Resources and Infrastructure Management" (Swiss Water Policy for Central Asia 2002-2006); - "Management, Security and Conflict Prevention" (raising transparency and public awareness); - and cross-cutting "environmental" issues (relation between water and environment) in accordance with the Aarhus Convention.

The progress of project activities was considered at the ICWC meetings:

- 37<sup>th</sup> (22-24 December 2003, Karshi),
- 42<sup>nd</sup> (28-29 April 2005, Almaty),
- 43<sup>rd</sup> (2 November 2005, Almaty),
- 46<sup>th</sup> (8-10 March 2007, Ashgabat),
- 48<sup>th</sup> (11 October 2007, Khodjent),
- 49<sup>th</sup> (19 March 2008, Tashkent),
- 51<sup>st</sup> (17-18 September 2008, Almaty).

The Project is funded by SDC and implemented by SIC ICWC in Tashkent with the assistance of the UNECE and UNEP/GRID-Arendal office in Geneva. The Project Phase-1 started on 1 December 2003 and came to the end on 31 December 2006.

The activities were continued between Phases 1 and 2 during the bridging period, which lasted from 1 January till 31 July 2007. The Project Phase-2 started on 1 August 2007 and came to the end on 31 August 2010.

The main result of activities during the reporting period was involvement of EC IFAS / RHC to information exchange.

## 2. Key project results achieved during the reporting period

The achievements on each goal planned in the Project Document are given below.

Only those results concerning the planned activities for the reporting period are given.

### 2.1. Closer inter-institutional cooperation with the purpose of providing development of decision support system in water management sector and responsibility for respective data collection and updating

**Result 1.1.** Implementing the project assessment by suppliers and users of the region (Ministries, SIC ICWC, BWOs, EC IFAS, RHC(NHMS) with aim to reveal gaps, problems, disadvantages in the information exchange and support development, as well to define new users and other important information suppliers.

State-of-the-art at the beginning of 2011: Last assessment by users was implemented at the stakeholders seminar (Almaty, 26 April 2007) before the start of Project Phase 2.

Results of SIC ICWC:

"The questions list on improvement of information service of Central Asian water sector" is developed and disseminated; the gathering and processing of responses has started.

Results of EC IFAS/RHC:

- The sub-contract on the project work between EC IFAS and SIC ICWC has been signed.
- The letters about the establishment of the Working Group have been sent to the interested organizations.
- Involvement into disseminating of "The questions list ...", the gathering and processing of responses has started.
- The "information exchange matrix for the Central Asian water sector" is developed jointly with SIC ICWC; the gathering and processing of responses has started.
- Terms of Reference for the working group members to reveal problems, gaps, shortcomings in the information support and exchange has been developed.

Results of ICSD:

• Involvement into filling and dissemination of "The questions list ...".

Results of UNECE, Zoi:

• Involvement into development of "The questions list ...".

Indicators: "The questions list ..."; organizing the Working Group.

Milestones: May 2011

## Result 1.2. Elaborating the shared cooperation mechanism within information exchange as a whole

State-of-the-art at the beginning of 2011: There is no unified common mechanism for cooperation within information exchange.

Results of SIC ICWC, ICSD, UNECE, Zoi:

• The common mechanism for cooperation within information exchange will be developed on the basis of summarizing questioning of users and the Working Group (Result 1.1).

Results of EC IFAS/RHC:

• The work on formation of proposals concerning the cooperation mechanism is started jointly with experts.

Indicators: processing the responses to "The questions list ...".

Milestones: June 2011

### Result 1.5. Developing and testing demo-version of the Aral Sea Basin Management Models (ASB-mm) *provided as in-kind contribution of SIC ICWC*

State-of-the-art at the beginning of 2011: The local and INTERNET versions of the ASB-mm model are developed by SIC ICWC.

Results of SIC, BWO "Amudarya", BWO "Syrdarya":

- The INTERNET version of the Aral Sea Basin management model (ASB-mm) is developed (Fig. 1), which includes:
  - The water resources allocation model (WAM)
  - The planning zone model (PZM)
  - The socio-economical model (SEM)
  - The set of models for calculation of water and salt balance of the Aral Sea water area.
- The model testing is being implemented and will be finished in mid-2011 (as expected).

Indicators: Users are able to simulate any development options

Milestones: the work was done according to plan



Fig. 1. ASBmm model

Result 1.6. Developing and testing the model of river section water balance (selection of river's section, and problem solving on flow distribution, channel inflow calculation, water losses in the river-bed). State-of-the-art at the beginning of January 2011: The model of river section water balance is developed.

Results of SIC, BWO "Amudarya", BWO "Syrdarya":

• The river section water balance model for Amudarya and Syrdarya rivers is used for preparing the seasonal analytical reports (see Result 3.6). This kind of information is added to the analytical notes on vegetation and non-vegetation periods.

Results of EC IFAS/RHC:

• Calculation of water balance of the Syrdarya river channel from Shardara reservoir to H/S Karateren for 2009 and 2010.

Indicators: The analytical models of the river section water balance model for Amudarya and Syrdarya rivers makes it possible to evaluate the management fairness and water losses.

Milestones: the work was done according to plan

# Result 1.7. Developing and testing the model for estimation and prediction of return flow.

State-of-the-art at the beginning of 2011: There is no publicly available model for estimation and prediction of return flow in the region.

Results of SIC, BWO "Amudarya", BWO "Syrdarya":

- The analytical tool containing models and computer programs for 2 modules is developed and tested:
  - Assessment and forecast of return flow to the main rivers of the Syrdarya river basin, which are based on the approach of the BMO "Syrdarya".
  - Assessment and forecast of the collector & drainage flow to the balance sites of the Amudarya river.

Indicators: The analytical tool gives possibility to assess the return flow and to define more accurately the water balance of the river channel.

Milestones: the work was done according to plan

## Result 1.10. Developing and testing the model for estimation of non-productive losses in the river channels

State-of-the-art at the beginning of January 2011: The model for estimation of non-productive losses in the river channels is developed.

Results of SIC, BWO "Amudarya", BWO "Syrdarya":

• The model for estimation of non-productive losses in the river channels is used for calculation of water losses from the river channels of the Amudarya and Syrdarya rivers.

Indicators: The analytical tool gives possibility to assess the water losses from the river channel on the river's balance sites as compared with existing recommendations on their **rationing**.

Milestones: the work was done according to plan

Result 1.11. Developing and testing the model of reservoir's waterworks facility with hydroelectric power station (object selection and problem solving on streamflow regulation by reservoir, evaluation of HES's operating mode, including electricity production, calculation of deficits, releases etc.)

State-of-the-art at the beginning of January 2011: The model for evaluation of reservoir's waterworks facility with hydroelectric power station is developed.

Results of SIC, BWO "Amudarya", BWO "Syrdarya":

 The model for evaluation of hydroelectric power station operation on the reservoir's waterworks facility (inflow, releases, HESP escapage, power production) is used for calculation of the operation modes of the Naryn-Syrdarya HEPS cascade including assessment of electricity production and management results in irrigated agriculture and ecosystems.

Indicators: The analytical tool allows to assess the **efficiency** of HEPS operation on the large reservoirs' waterworks facilities.

Milestones: the work was done according to plan

## 2.2. Efficient institutional structure of information services in the Central Asian water sector

Result 2.1. Improving the "political" structure: recognizing CAREWIB as the official system for recording, collecting, using and analyzing data, and modelling of water and land resources of Central Asia by IFAS and other major regional and national organizations.

State-of-the-art at the beginning of January 2011: CAREWIB is used as the information resource by five national water management organizations - founders of ICWC.

Results of SIC, EC IFAS, UNECE, Zoi:

- The CAREWIB resources are presented at meetings attended by representatives of IFAS, ICWC, ICSD, EurAsEC, various ministries and other organizations.
- A meeting with participation of Zoi and EC IFAS was held (Geneva, March 2011).

CAREWIB is used as the official information resource by five national water management organizations, Ministry of Foreign Affairs of the Republic of Uzbekistan, the Embassies of the Republic of Uzbekistan in various countries etc. (Annex 6).

Milestones: the work was done according to plan

# Result 2.2. Broadening the "geographical" structure: establishing cooperation with Afghanistan for information exchange.

State-of-the-art at the beginning of January 2011: A Database on water resources of Afghanistan for 1960-1970 is available on the portal.

Results of Zoi:

• Preliminary investigation on readiness of the Afghanistan water sector to water information exchange in the Pyandj river basin (see also Result 3.2).

Indicators: 100% of planned activity is implemented.

Milestones: the work was done according to the planned term

# Result 2.3. Improving the "executing" structure: regular dialogue with partners relevant for further collaboration on implementing the project and for information support (national authorities in the region, donors, projects, ICSD, RHC, NHMS of CAR).

State-of-the-art at the beginning of January 2011: Cooperation on regular information exchange with 59 organizations is organized within EECCA water management organizations network.

Results of SIC, ICSD, UNECE:

• EECCA's water management organizations, research institutes, planning organizations participate in information exchange on regular base.

Indicators: 59 of EECCA water management organizations, research institutes, planning organizations participate in information exchange on regular base. 100% of planned activity is implemented.

Milestones: the work was done according to plan

### Result 2.4. Improving the support structure (cooperation with donors and international organizations).

State-of-the-art at the beginning of January 2011: Cooperation with WWC, ICID, INBO, GWP CAR and others is organized.

Results of SIC:

 Cooperation with the World Water Council, the International Commission on Irrigation and Drainage, the International Network of Basin Organisations, the Global Water Partnership of Central Asia and Caucasus, the International Office for Water is prolonged: • The Websites of those organizations are updated on the CAWater-Info portal; publications are translated into Russian language and placed on the portal.

Indicators: 100% of planned activity is implemented.

Milestones: the work was done according to the planned term

### Result 2.5. Cooperation with other data owners

State-of-the-art at the beginning of January 2011: For past years there were one-time communications with other data holders

Results of SIC:

- The reports and publications concerning the CAWa project are placed on the portal.
- The information about the GIZ program "Transboundary water resources management in Central Asia" is placed on the portal.

Indicators: The reports and publications on the CAWa project and GIZ program.

Milestones: the work was done according to plan

# 2.3. Broadening IS's volume and improving access to the Information System, as well improving mechanisms of data collection and information retrieval at the regional and national levels

### Result 3.1. Developing the IS patterns for Central Asian areas outside the ASB

State-of-the-art at the beginning of January 2011: Regional IS is placed on the portal and it consists of 2 databases (DB on sectors and DB on objects) and GIS-block with information from 1980 up to the present time

Results of SIC:

- The Information System is being filled with information on Central Asian areas situated outside the ASB.
- A series of GIS-layers for 3 areas of Kyrgyzstan (Issyk-Kul, Chu and Talas) is prepared.
- The patterns of relevant parameters for new areas are prepared.

Results of 5 NFPs:

• Data on new areas were added into the regional IS.

Indicators: The database volume was increased by means of added new areas.

Milestones: the work was done according to plan

### **Result 3.2. Inclusion of Afghanistan's data into the IS**

State-of-the-art at the beginning of January 2011: The portal has a section, which is dedicated to Afghanistan with DB on rivers for 1960-1970.

Results of SIC:

- 94 new records (hydrological information on rivers) were added into the database on Afghanistan.
- Reports, articles, monographs concerning Afghanistan are added into the Knowledge Base.
- 8 maps are placed on the portal.
- The following brochures have been published:
  - N.I.Vavilov "Agricultural Afghanistan" (essay).
  - Afghanistan and Central Asia: development and cooperation issues (Annotated references).
  - Afghanistan in the light of regional cooperation in the water resources area (*in the process of consideration*).

Indicators: New data is added to the database and to the knowledge base on Afghanistan.

Milestones: the work was done according to plan

# Result 3.3. Updating the DB with new information according to the model's and GIS's requirements, as well with current information related to the developed sections of DB.

State-of-the-art at the beginning of January 2011: Regional IS is placed on the portal and it consists of 2 databases (DB on sectors and DB on objects) and GIS-block with information from 1980 up to the present time

Results of SIC:

• Data for 2010 and partially for 2011 is added.

Results of 5 NFPs:

• Data on each country for 2010-2011 is added into the regional IS.

Indicators: The database volume is increased by the added data for 2010-2011.

Milestones: the work was done according to plan

### Result 3.4. Developing new GIS-layers

State-of-the-art at the beginning of January 2011: GIS-layers for provinces of Central Asia states within ASB are created.

Results of SIC:

- The GIS-layers for Talas and Chu areas of Kyrgyzstan are prepared.
- SHP-files of GIS-layers are available for downloading from the IS by registered users.

Results of 5 NFPs:

• Cartographic information on the states' areas is collected and given to the SIC for its further integration into the GIS of NISs.

Indicators: Increased number of GIS-layers. 100% of planned activity is implemented.

Milestones: the work was done according to plan

# Result 3.5. Spatial visualization of databases' regional statistics through GIS-interface

State-of-the-art at the beginning of January 2011: The present GIS-interface has no function for visualization of database's regional statistics

Results of SIC, Zoi:

- Software and server are purchased under the financial support of the GIZ project "Transboundary water management in Central Asia".
- Making the on-line maps accessible through INTERNET on the available GISbase will be started in April 2011.

Indicators: Including the GIS into the DB.

Milestones: the work was done according to plan

### Result 3.6. Preparing the seasonal analytical reports for the ICWC members

State-of-the-art at the beginning of January 2011: Analytical reports for vegetation and non-vegetation periods are available on the website since 2008

Results of SIC:

- The following reports are placed on the portal:
  - Dynamics of main parameters of the states in the Aral Sea Basin (updated)
  - Monitoring of the wetlands' area dynamics in the Southern Priaralie (February 2011)
  - The wetlands' area in the Amudarya river delta (2000-2010) (updated)

Results of BWO "Amudarya" and BWO "Syrdarya":

• Information about actual water balance on the river sites and reservoirs, lateral inflow, transboundary flow allocation, water withdrawals and main canals compared with the water limits, prognosis of reservoirs' operation mode in the Aral Sea Basin has been provided to SIC.

Results of 5 NFPs:

• The analytical reviews were downloaded from the portal and were given to administration regularly.

Indicators: the analytical reports are available on the portal. 100% of planned activity is implemented.

Milestones: the work was done according to plan

Result 3.7. Regular providing water management organizations with analytical reports where hydrometeorological data is correlated with water management information and analysis of river channel and basin balances.

State-of-the-art at the beginning of January 2011: Analytical reports available on the portal have no information from RHC/NHMS

Results of SIC, RHC:

- The following information of NHMSs was placed on the portal:
  - Forecast for vegetation period (April-September 2011) for the South-Kazakhstan and Kyzylorda regions in the Kazakhstan (information of Kaz-HYDROMET)
  - Precipitation amount in the Amudarya and Syrdarya river basins for October 2010 - February 2011 and the preliminary forecast of water discharges in the rivers of the Amudarya and Syrdarya river basins for vegetation period (April-September) 2011 (information of UzHYDROMET)
  - Precipitation amount in the Amudarya and Syrdarya river basins for October 2010 - January 2011 and assessment of possible water content for vegetation period 2011 (information of UzHYDROMET)

Indicators: The forecasting information of NHMSs of Kazakhstan and Uzbekistan is available on the portal.

Milestones: the work was done according to plan

## Result 3.8. Monitoring of national information systems creation and consulting of NIS's developers.

State-of-the-art at the beginning of January 2011: A series of training and regional seminars were held in 2007-2010.

Results of SIC:

- A regional seminar and PSC's meeting were held (18 February).
- A national seminar was held in Kyrgyzstan (17-18 March).
- The following handbooks were updated:
  - The handbook about using the CAWater-Info portal in day-to-day activity (12 edition, supplemented)
  - The handbook about online use of the CAREWIB database (7 edition, supplemented)
- The maintenance of equipment given to the NFPs is done.

Results of 5 NFPs:

- Regular communication with water management, ecological and other organizations in the CA countries is organized; information for NISs is being provided regularly.
- Information was introduced into the national and regional information systems.

Indicators: 1 regional seminar and 1 national seminar were held.

Milestones: the work was done according to plan

# Result 3.9. Training on using the national information systems in day-to-day activity for water specialists, NGO's representatives and other stakeholders

State-of-the-art at the beginning of January 2011: Representatives of NGOs and other stakeholders participated in seminars organized within the project in 2007-2010.

Results of SIC:

• No training seminars for HGO's representatives and other stakeholders were held during the reporting period.

Indicators: The appropriate number of users has been trained and consulted.

Milestones: Seminars jointly with monitoring; consultations on the request.

### 2.4. Increasing information volume and CAWater-Info Portal's capabilities including an online platform of modelling tools

# Result 4.1. Regular gathering, processing and disseminating information on water and environment in CAR.

State-of-the-art at the beginning of January 2011: CAWater-Info Portal has 42 websites, 25,000 web-pages, about 2,600 pdf-documents. Partners have a huge information mass on use of ASB water and land resources which is to be processed and made available through INTERNET

Results of SIC:

- INTERNET information on the Aral Sea Basin issues is found and collected.
- Publications, documents and other information of SIC and partners are added into the electronic library. (see Result 5.1).
- Information for preparing towards the 6th World Water Forum is presented.

Results of 5 NFPs:

• Relevant information about events concerning water management in the Central Asian countries has been provided.

Results of ICSD:

• Publications and agreements are given.

Indicators: The CAWater-Info portal contains 42 websites with total volume about 25000 pages and 2600 pdf-documents.

Milestones: The portal is being updated daily; the work was done according to plan

# Result 4.2. Further development of the Bibliographic Database on Land and Water Resources Use

State-of-the-art at the beginning of January 2011: The Bibliographic Database has 4374 records in Russian and 2960 records in English

Results of SIC:

• New bibliographic information in Russian and in English is introduced.

Indicators: The bibliographic database has 4817 records in Russian and 3100 ones in English.

Milestones: the work was done according to planned

# Result 4.3. Further development of the database on foreign water management organizations and donors ("Water Atlas") and of Electronic Directory "Who is who in water management"

State-of-the-art at the beginning of January 2011: DB "Water Atlas" has 634 records in Russian and in English. Electronic Directory "Who is who in water management" has 440 records in Russian and in English.

Results of SIC:

• New records are added.

Results of 5 NFPs:

• Information about personnel of the national water management organizations is collected and given to the SIC for the DB.

Indicators: The Database "Water Atlas" contains 650 records in Russian and in English. The Database "Who is who in water management?" contains 449 records in Russian and in English.

Milestones: the work was done according to plan

### Result 4.4. Further development of Knowledge Bases "Land and water resources use in the Aral Sea Basin" and "International and National Water Law"

State-of-the-art at the beginning of January 2011: The Knowledge Base "Land and water resources use in the Aral Sea Basin" has the summaries on 417 pilot projects implemented in the region. The Knowledge Base "International and National Water Law" includes 650 documents.

Results of SIC:

- Information about 51 projects implemented in the region during 1960-1980 is added into the Knowledge Base "The Aral Sea Basin water and land resources use".
- Information about rivers, lakes, reservoirs etc. is added into the Knowledge Base "The Aral Sea Basin water and land resources use".

• 32 new documents are added into the Knowledge Base "International and National Water Law".

Results of ICSD:

• Relevant information has been given for the knowledge bases.

Indicators: The Knowledge Base "The Aral Sea Basin water and land resources use" contains generalized information about 468 pilot projects implemented in the region earlier. The Knowledge Base "International and National Water Law" contains 682 documents.

Milestones: the work was done according to plan

## Result 4.5. Further development of Knowledge Base "Integrated Water Resources Management: Central Asian practice"

State-of-the-art at the beginning of January 2011: The Knowledge Base "Integrated Water Resources Management: Central Asian practice" has 581 documents

Results of SIC:

- Documents of the "IWRM-Fergana" project are added into the Knowledge Base.
- New documents are added into the Knowledge Base of the "Water Productivity Improvement at the Plot Level (WPI-PL)" project.

Results of 5 NFPs:

• Relevant information for the KB is provided.

Indicators: The Knowledge Base "Integrated Water Resources Management: Central Asia case study" contains 596 documents.

Milestones: the work was done according to plan

## Result 4.6 Further development of the portal's section in national languages of Central Asia

State-of-the-art at the beginning of January 2011: Material translated into national languages of CA countries as well as information of national water management organisations are placed on the CAWater-Info portal.

Results of SIC:

• The national teams were assisted with the introduction of information.

Results of 5 NFPs:

• Material translated into national languages of the Central Asian countries is presented.

Indicators: The section in national languages contains 1286 documents.

Milestones: the work was done according to plan

### Result 4.7. Making the Portal fully bilingual (Russian and English).

State-of-the-art at the beginning of January 2011: Information in Russian is still prevailing in some sections of the portal (percentage of materials in English: 100% - all DBs and KBs; 60-100% - other sections).

Results of SIC:

• Translation of the material in the portal from Russian to English is made regularly.

Indicators: The increased information volume of bilingual site with good quality translation into English language.

Milestones: the work was done according to plan

### 2.5. Various information products including digital publications regularly disseminated among target user groups and other stakeholders

### Result 5.1. Publication and dissemination of non-periodic issues

State-of-the-art at the beginning of January 2011: 336 publications of SIC and partners were placed on the portal during the Phase 2.

Results of SIC, EC IFAS, ICSD, UNECE:

- Various brochures, collected papers and reports have been prepared, published and disseminated (Annex 5);
- The partners' publications in the electronic version were placed on the portal;
- Bulletins, brochures and other information have been disseminated.

Indicators: 54 new publications of SIC and partners were placed on the portal (besides the historical ones).

Milestones: the work was done according to plan

## Result 5.2. Statistical analysis of downloading information to identify needs of user groups

State-of-the-art at the beginning of January 2011: There are 2 analytical reports on visiting statistics of sites – for 2008 and for 2006-2009 (summarized report).

Results of SIC:

- The visiting statistics for all sections of the portal was being tracked daily (Annex 2):
  - For domain "cawater-info.net" up to 2700 visits daily
  - For domain "icwc-aral.uz" up to 300 visits daily
  - For domain "eecca-water.net" up to 90 visits daily

Indicators: The number of portal visitors has increased and reached 2700-3000 people daily.

Milestones: the work was done according to plan

### Result 5.3. Publishing and disseminating periodical issues

State-of-the-art at the beginning of January 2011: "CAWater-Info News" bulletins, ICWC press-releases (in Russian and in English), INBO bulletins are regularly published and disseminated.

Results of SIC, ICSD:

- "CAWater-Info News" bulletins and ICWC press-releases are being disseminated only electronically through the portal and the Mailing List.
- 34 "CAWater-Info News" bulletins and 6 ICWC press-releases have been disseminated through the Mailing List.
- The database on mail addresses has:
  - 318 Russian-speaking subscribers and 166 English-speaking ones for "CAWater-Info News" bulletins;
  - 328 Russian-speaking subscribers and 88 English-speaking ones for ICWC press-releases;
  - 371 subscribers for INBO bulletins.

Indicators: 34 "CAWater-Info News" bulletins and 6 ICWC press-releases have been disseminated through the Mailing List.

Milestones: the work was done according to plan

### Result 5.4. Preparing and disseminating CDs with digital training materials

State-of-the-art at the beginning of January 2011: 5 CDs are issued.

Results of SIC:

- The earlier prepared CDs have been updated:
  - CD with training materials on the CAREWIB project (textbooks, handbooks)
  - CD with the Knowledge Base "Using Land and Water Resources of the Aral Sea Basin"
  - CD with the Knowledge Base "Integrated Water Resources Management: Central Asia case study"
  - o CD with the Knowledge Base "International and National Water Law"

Indicators: 4 updated CDs

Milestones: the work was done according to plan

Result 5.5. Digitization and publication of rare and ancient books, maps etc., from the partners' archival depositories.

State-of-the-art at the beginning of January 2011: SIC and partners have rarities and ancient books, maps etc. in their archival depositories

Results of SIC, ICSD:

• Rare and ancient books available in the archives are digitized: 21 in Russian (Annex 3).

Indicators: 21 digitized archival materials.

Milestones: the work was done according to plan

### Result 5.6. Advertising the portal and IS through placing modern information about water resources of Central Asia and updating available one in the global information systems (e.g. WaterWiki)

State-of-the-art at the beginning of January 2011: Information about CAREWIB project and other related projects which are implemented in the region is available in global information systems (WaterWiki etc.)

Results of SIC:

• Favorites of the most popular social networks are added on the portal (Facebook, Twitter etc.)

Indicators: The portal information can be disseminated through the social networks.

Milestones: the work was done according to plan

### Result 5.7. Preparing and publication of materials on the environmental indicators

State-of-the-art at the beginning of January 2011: ICSD has material on environmental indicators

Results of ICSD:

• Environmental indicators of Central Asian countries for 1990-2004 are prepared to be published.

Indicators: Increased number of users because of new content.

Milestones: the work was done according to plan

### 3. Milestones and outputs of the project

The table below shows the most important results and milestones for the reporting period.

Item	Place	Date
Meeting of the Project Steering Committee	Tashkent	18 February
National seminar in Kyrgyzstan	Bishkek	17-18 March
Meeting of Zoi and EC IFAS	Geneva	March
Meeting of SIC project's staff on the organizational issues (under the leadership of Prof. Dukhovny V.A.).	Tashkent	monthly

### 4. Annexes

- Annex 1. List of Abbreviations
- Annex 2. Statistics of the portal visits
- Annex 3. List of old books available through the portal.
- Annex 4. List of workshops conducted under project
- Annex 5. List of publications
- Annex 6. List of websites, which referred to the CAWater-Info portal.

## Annex 1. List of Abbreviations

ASB-mm	Aral Sea Basin Management Model
GWP CACENA, GWP CAR	Global Water Partnership for Caucasus and Central Asia
SDC	Swiss Agency for Development and Cooperation
UNECE	United Nations Economic Commission for Europe
WUA	Water Users Association
ASB	Aral Sea Basin
BWO	Basin Water Organization
DB	Database
WWC	World Water Council
EC	Executive Committee
IS	Information System
ICWC	Interstate Commission for Water Coordination in Central Asia
ICSD	Interstate Commission for Sustainable Development
INBO	International Network of Basin Organizations
MAWR	Ministry of Agriculture and Water Resources
IFAS	International Fund for Saving the Aral Sea
NHMS	National hydro-meteorological services of Central Asian states
SIC	Scientific-Information Center
NIS	National Information System
NFP	National Focal Point
NGO	Non-governmental organizations
ASBP	Aral Sea Basin Program
CAR	Central Asian Republics
RHC	Regional Hydrological Center of EC IFAS

## Annex 2. Statistics of the portal visits

### cawater-info.net

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
January 2011	28225	61773	516974	1022102	38.74 ГБ
February 2011	31687	62763	525754	1075422	49.37 ГБ
March 2011	31791	62317	489118	1013839	35.99 ГБ
Total	91703	186853	1531846	3111363	124.1 ГБ

### icwc-aral.uz

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
January 2011	3226	8160	14856	40622	650.70 MB
February 2011	3293	7961	15457	43477	602.79 MB
March 2011	3666	8084	14510	46661	869.40 MB
Итог	10185	24205	44823	130760	2.12 GB

### Annex 3. List of old books available through the portal

### In Russian

- 1. N.I.Sus Short instruction to implementing the snow- and water- measuring observations at the structures situated on the ravine surface to determine the runoff coefficient (1915)
- 2. B.K.Terlatsky (Editor) Groundwaters (1932)
- 3. I.G.Aleksandrov The Syrdarya river flow regulation and irrigation prospect in its basin (1928)
- 4. A.V.Ogievsky Hydrometry and hydrometrical work execution (1937)
- 5. V.A.Dukhovny Water management complex in the irrigation zone. Formation, development. (1984)
- 6. A.Gubarevich-Radobylsky Economic essay about Bukhara and Tunis. Comparative investigation of two protectorate systems (1905)
- 7. A.Predtechensky Agriculture and irrigation tasks in the Zerafshan Valley (1921)
- 8. Materials to study the cotton-growing. Issue 3: The cotton-growing in Khiva (Author: A.Krasnoslobodsky, 1912)
- Materials to study the cotton-growing. Issue 4: Which roads are needed to build in Turkestan and in Transcaucasia (Author: 6. A.Gubarevich-Radobylsky, 1914)
- 10. G.K.Rizenkampf Irrigation problems of Turkestan. Issue 1 Irrigation cotton program (1921)
- 11. G.K.Rizenkampf Trans-Caspian canal (irrigation problems of Trans-Caspiy) (1921)
- 12. G.E.Dlazyrin, A.M.Nikitin, A.S.Schetinnikov Water balance of Sarez Lake (1986)
- 13. F.P.Morgunenkov, I.A.Sevastianov New Turkmenia.Irrigation perspectives of Turkmenskaya SSR (1925)
- 14. "Herald of irrigation", n 7-8 (October-November 1923)
- 15. "Herald of irrigation", n 9 (December 1923)
- 16. "Herald of irrigation", n 3 (March 1924)
- 17. "Herald of irrigation", n 4 (April 1924)

- 18. "Herald of irrigation", n 6 (June 1925)
- 19. "Herald of irrigation", n 7 (July 1925)
- 20. "Herald of irrigation", n 8 (August 1925)
- 21. Irrigation in Uzbekistan, Vol. 2.

## Annex 4. List of workshops conducted under project

Name of Event	Date	No of days	Place, country	Responsib le	Instituti on	Purpose	Target Audience	Number of Par- tici- pants (M/F)	Direct Costs (USD)	Direct Costs/Partici pant/day (USD)
Regional seminar on the project attended all NFPs and PSC's meeting	18 February	1	Tashkent, Uzbekistan	Beglov I.	SIC ICWC	Discussion of the report for 2010 and the YPO for 2011	All project executors	25 (20/5)	7980	319
National seminar in Turkmenistan	17-18 March	2	Ashgabad, Turkmenistan	Beglov I.	SIC ICWC	Discussion of current situa- tion	NFP of Turkmenistan	14 (6/8)	4059	290

## Annex 5. List of publications

The list includes e-publications of SIC ICWC and partners that are disseminated through the portal and mailing lists.

n	Name	Date	Publisher
1.	ICWC bulletin No. 54, December 2010	January	SIC ICWC
2.	Collected abstracts of SIC ICWC No. 32	January	SIC ICWC
3.	Developing the water sector's information network in the EECCA by example and with the participation of the Information System of Central Asian water sector «CAREWIB» (Progress Report for 2008-2010)	January	"CAREWIB" project
4.	Political decision options for countries with water scarcity: lessons learnt in the Middle East and the South Africa	January	"CAREWIB" project
5.	Shared management of transboundary watercourses: world experience review	January	"CÁREWIB" project
6.	N.I.Vavilov "Agricultural Afghanistan" (essay).	February	"CAREWIB" project
7.	Water management and land reclamation in the end of XIX - first third of XX century (Annotated references, issue 2)	February	"CAREWIB" project
8.	Manual on drawing up and correcting the water allocation plan at the WUA level on the daily planning base	February	"IWRM- Fergana" pro- ject
9.	Afghanistan and Central Asia: development and cooperation issues (Annotated references).	February	"CAREWIB" project
10.	Rysbekov Yu.Kh.: 300 questions and 1000 answers: to assisting plowghman (legal knowledge for dekhkan, farmer)	February	"IWRM- Fergana" pro- ject
11.	C.Sadoff, T.Greiber, M.Smith, G.Bergkamp: Share – Managing water across boundaries (translated into Russian by order of IUCN)	March	SIC ICWC

### Annex 6. List of websites, which referred to the CAWater-Info portal

History of the Aral Sea from ancient period up to present kungrad.com

Center of Register and Cadaster www.waterinfo.ru

Russian Research Institute of multipurpose use and protection of water resources (RosNIIVH) www.wrm.ru

Embassy of the Republic of Uzbekistan in Germany www.uzbekistan.de

Embassy of the Republic of Uzbekistan in the Russian Federation www.uzembassy.ru

International Forum "A drop of water - a grain of gold" 2010 turkmen-water.ru

Environment and Sustainable Development in Central Asia www.caresd.net

Association of Crisis Centers of Kyrgyzstan www.acc.web.kg

VNIIGIM – Web-links www.vniigim.ru

EvrAzES www.evrazes.com

Minjust.tj - Ministry of Justice of the Republic of Tajikistan www.minjust.tj

IWMI-Central Asia centralasia2.iwmi.org

Embassy of Uzbekistan to The United States www.uzbekistan.org

Catalogue of web-links www.vodosbor.ru

Rivertwin www.rivertwin.de

Embassy of the Republic of Uzbekistan in the Republic of Kyrgyzstan www.uzbekistan.kg

Chu-Talas Commission www.chutalascommission.org

Embassy of the Republic of Uzbekistan in the Republic of Kazakhstan www.uzembassy.kz

Embassy of the Republic of Uzbekistan in the Republic of Tajikistan

www.uzbekistan.tj

Analitika.org www.analitika.org

Institute for Public Policy www.ipp.kg

Dniester dniester.org

Embassy of Uzbekistan to the Indonesia uzbemb.or.id

Consulate-General of the Republic of Uzbekistan in Bangkok www.uzbinbkk.com

www.eco-tiras.org - New Association of River Basin Organizations in Eurasia tiras.vox.md

UNECE - United Nations Economic Commission for Europe www.unece.org

infoCOM.UZ » Экологические ресурсы в УзНете infocom.uz

Embassy of Uzbekistan in Belgium, Mission to the European Union www.uzbekistan.be

Swedish Aral Sea Society www.aralsjon.nu

Embassy of the Republic of Uzbekistan in the Republic of Azerbaijan www.uzembassy.az

Embassy of the Republic of Uzbekistan in the Republic of Ukraine www.uzbekistan.org.ua/

CAWa - Central Asian Water www.cawa-project.net

Legislation (Lexadin) www.lexadin.nl

Embassy of the Republic of Uzbekistan in Turkey www.uzembassy.org.tr

Ambasciata della Repubblica dell'Uzbekistan in Italia www.uzbekistanitalia.org

Embassy of Uzbekistan in India www.uzbekembassy.in

Environmental Protection eun.tut.su

Ministry of Nature Protection of the Kyrgyz Republic www.nature.kg

Seversk-Donetsk basin water resources management organization

sdbuvr.slav.dn.ua

CenterAsiaConsulting www.centerasiaconsulting.ru

EcoCentre.tj - Youth Ecological Centre www.ecocentre.tj

Aarhus Centre of the Republic of Kazakhstan aarhus.kz

Asia Regional Integration Center aric.adb.org

International Organization of Ecology and Health "ECOSAN" www.ecosan.uz

Carec www.carecnet.org

Shimoni, Alster & Rasiel www.sar-law.com

GlobaLex - Research Guide on Transboundary Freshwater Treaties and Other Resources www.nyulawglobal.org

Embassy of the Republic of Uzbekistan in Egypt www.uzbekistan.org.eg

EMCWA/Amu-Darya www.yale.edu

Lex Words - All the laws of the world www.lexwords.com

InternationalResources www.ca-laws.info

TajikWater.net (water resources information for Tajikistan) www.tajikwater.net

Amu Darya Basin Network www.amudaryabasin.ne

United Nations - DESA News www.un.org

Parliamentarians Network for Conflict Prevention www.parliamentariansforconflictprevention.net

GWP ToolBox www.gwptoolbox.or

Peace & Conflict Review www.review.upeace.org

UN in Tajikistan www.untj.org

International Water Resources Reading List - UT Austin

www.ce.utexas.edu

WaterWiki waterwiki.net

FAO EcoLex www.ecolex.org

APWF-Knowledge Hubs www.apwf-knowledgehubs.net

ENVSEC www.envsec.org