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**CENTRAL ASIA REGIONAL WATER INFORMATION BASE  
PROJECT 'CAREWIB'**

# **Progress Report 2009**

**January 2010**

**Tashkent – Arendal – 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 CAREWIB Project is implemented under the decision made at the 37th ICWC meeting (22-24 December 2003, Karshi). The progress of project activities was considered at the 42nd (28-29 April 2005, Almaty), 43rd (2 November 2005, Almaty), 46th (8-10 March 2007, Ashgabat), 48th (11 October 2007, Khodjent) and 51st (17-18 September 2008, Almaty) ICWC meetings.

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 CAREWIB Project Phase-1 started on 1 December 2003 and came to the end on 31 December 2006.

It was decided to continue activities between Phases 1 and 2 at the meeting of the Project Steering Committee (20 October 2006, Bishkek). The bridging period lasted from 1 January to 31 July 2007. Phase 2 of the project started 1 August 2007.

CAREWIB Phase-2 project is aimed at further development of an official tool for policy support in water and environmental sectors of the Central Asian region initiated by CAREWIB Phase-1 Project.

The main results of the activities on the portal are increased information content on the portal, enhanced thematic coverage, and improved access to this information for portal visitors. Two main directions of portal development are established in the beginning 2009: the on-line database and the knowledge base. That this is a proper choice is proved by one of the 5th World Water Forum key themes - "Data for All".

The increase in numbers of daily visitors - from 800 in January to 1500 in December - is an indirect evidence of recognition and active use of the portal.

The main outcome of the national information systems creation is the integration of all five national information systems into the common regional online system, which now cover the whole Central Asia by adding other Central Asian regions beyond the Aral Sea Basin.

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

The main result to be achieved by the regional team during the year 2009 is further intensification of the process on development of the national information systems.

### **2.1. ENHANCE INFORMATION SCOPE AND SCALE OF THE CAREWIB PORTAL AND INFORMATION SYSTEM INCLUDING STRENGTHENING OF MECHANISMS FOR DATA COLLECTION**

#### **2.1.1. Block 1a. FURTHER DEVELOPMENT OF THE REGIONAL INFORMATION PORTAL CAWATER-INFO**

The main outcome of this activity is the increase of information volume, more themes covered and facilitation of visitors' access to information. Two main directions of the portal development - online databases and the knowledge base - were ultimately formed in the beginning of 2009. Since 2009 video films were placed on the portal what strengthened the portal's multimedia potential. Emphasizing the strengthening of regional cooperation, the CAREWIB project has supported formation of a review: "Transboundary cooperation on the international rivers: problems, experience, lessons, prognosis of experts". It has also developed considerably the knowledge base "International and national water law".

#### **Objectives for 2009:**

- 1.a.1. Continuous collection, processing and dissemination of information on water and environment in CAR to develop the portal into a "knowledge portal"
- 1.a.2. Introduction of a Content Management System (CMS).
- 1.a.3. Support of the bibliographic database on land and water resources use.
- 1.a.4. Development of the electronic reference book "Who is Who in Water Management of Central Asia".
- 1.a.5. Maintaining electronic conferences to discuss actual water management and environmental problems of Central Asia.
- 1.a.6. Support and development of the Knowledge Base "Water and Land Resources Use in the Aral Sea Basin"
- 1.a.7. Support and development of the Knowledge Base "Integrated Water Resources Management: Central Asian Experience" (together with the project "IWRM-Fergana").
- 1.a.8. Making the Portal fully bilingual (Russian and English).
- 1.a.9 Preparing for a database on water quality in the region (Russian and English)

**Result 1a.1. On-line information is available in the public domain for the following areas:**

- water information by countries;
- water and environment projects;
- official news from governmental sources and international organizations;
- foreign mass media on the region;
- international conferences;
- tenders/calls for project proposals;
- innovative equipment and technologies;
- list of scientific and water management organizations;
- list of and links to international and local non-governmental organizations;
- E-library.

Situation at the beginning of 2009: SIC and the partners have a big volume of information on water and land resources use in the Aral Sea basin, which should be processed and made available on the portal.

**SIC results:**

- Information on matters related to the Aral Sea basin is tracked on a daily basis. Information sources are websites of leading news agencies in CAR, donor organizations, SIC partner organizations, and projects. A part of information is taken from hard-copy publications (newspapers, magazines, brochures, monographs) and received mails. Information comes from national project coordinators in CARs and from partner organizations, with which agreements have been concluded.
- In 2009 1167 pieces of news in Russian (550 - in 1st half year; and 617 - in 2nd half year) and 173 in English (83 - in 1st half year; and 90 - in 2nd half year) were placed on the "News" portal. About 50% of this information was provided by national teams.
- The electronic library of the portal has been upgraded to improve access to available material (documents have been provided with abstracts, according to which the contents of a publication can be assessed before downloading it).

**5 NFP results:**

- The material including information from national water management organizations have been translated into national languages of Central Asian countries and have been placed on the CAWater-Info portal.
  - Kazakhstan: news - 32; documents - 135; video material - 1; links - 12.
  - Kyrgyzstan: news - 174; documents - 83; links - 10.
  - Tajikistan: news - 12; documents - 23; links - 22.
  - Turkmenistan: news - 419; documents - 58; video material - 1; links - 16.
  - Uzbekistan: news - 59; documents - 252; video material - 1; links - 8.

Indicators: Increased information flow obtained through the CAREWIB correspondent network. Information in national languages of CARs is placed on the portal. The portal visitors' number reaches 1500 people per day (December).

Milestones: the portal is updated on a daily basis.

### **Result 1a.2. Working content management system (CMS) for extending capabilities to provide services for portal visitors**

Situation at the beginning of 2009: CMS Joomla and WordPress have been installed on the portal for the section in the national languages (Fig. 1) and for "Clean Water Space" (Fig. 2), accordingly.

SIC results:

- On the basis of CMS the website for maintaining the network activity of the Russian-speaking water management organizations has been opened (Fig. 3). Information placement into the sections has started. The following sections have been opened:
  - News – 16 items
  - Publications – 64 items
  - Periodicals – 20 items
  - Information products – 26 items
  - Water management history – 14 items
  - Network members – 20 items
- A competition "Precious water droplet 2" was organized among children (within Uzbekistan) for the best picture and the story about water to attract additional visitors on the "Clean Water Space" website.
- The "Clean Water Space" website in Russian contains 212 records including the following sections:
  - «Children's room» – 26
  - Papers – 51
  - Figures and facts – 122
  - Essay – 6
  - Movies – 6
  - Photogallery – 8
- The "Clean Water Space" website in English contains 79 records including the following sections:
  - Papers – 6
  - Essay – 7
  - Figures and facts – 62
  - Movies – 4

Indicators: An improved potential of the portal websites to meet the users' needs.

Milestones: Testing period - January and February. March - the portal section for maintaining the network activity of the Russian-speaking water management organizations is functioning.

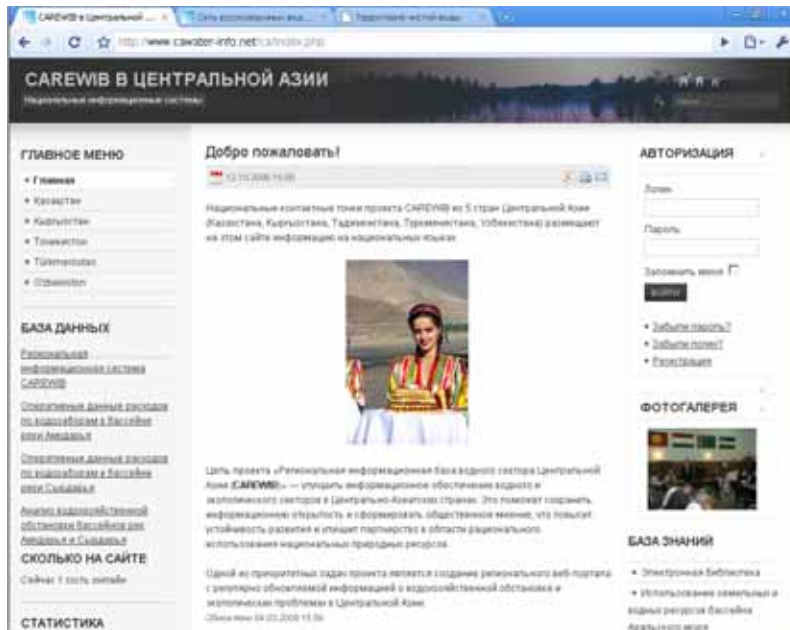


Figure 1 - Entrance of the portal section in the national language (CMS Joomla)

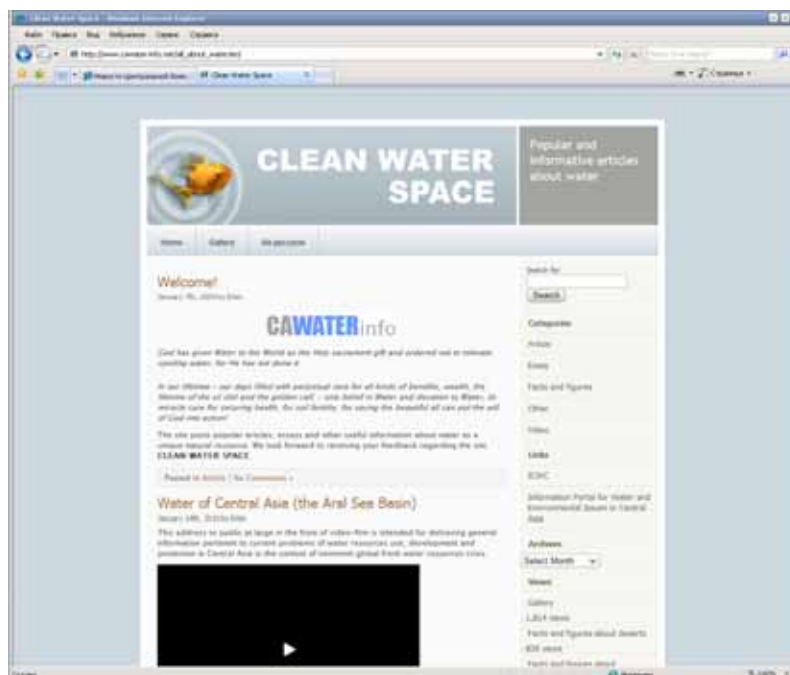


Figure 2 - Entrance of the portal section "Clean Water Space" (CMS WordPress)



Figure 3 - General view of the website for the Russian-speaking water management organizations network (CMS Joomla)

### Result 1a.3. Support of the bibliographic database on land and water resources use.

Situation at the beginning of 2009 Bibliographic DB with 2700 records in Russian and partially in English.

SIC results:

- Input of new bibliographic information, including in English, has continued.
- Translation of the existing database information from Russian to English has continued.
- The database style and facilities have been upgraded (Fig. 4).

Indicators: The increased number of bilingual bibliographic records in the DB portal is 3500 in Russian and 2760 in English.

Milestones: Additional new records monthly.



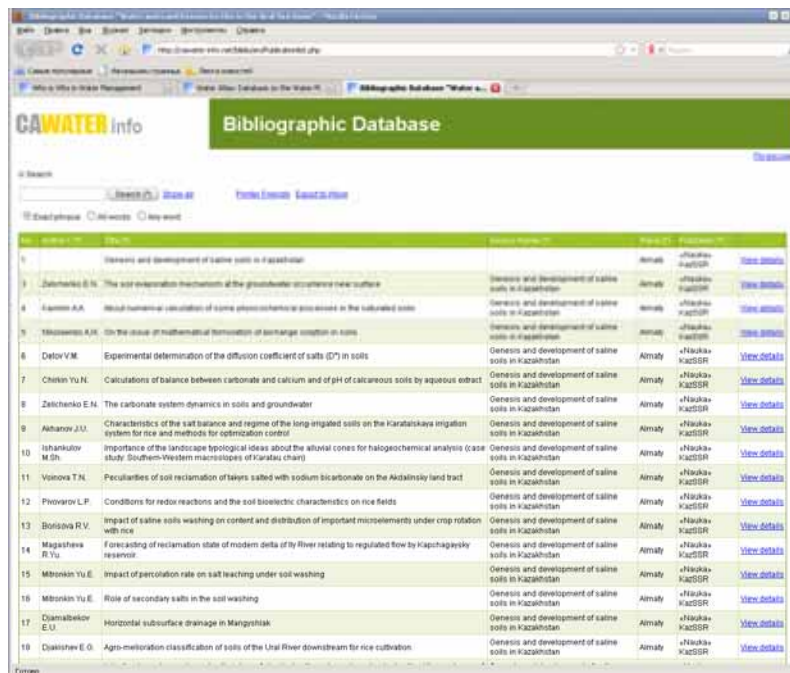


Figure 4 – Bibliographic database

#### Result 1a.4. Placing the electronic reference book “Who is Who in Water Management of Central Asia” on the Internet

Situation at the beginning of 2009: Unstructured data that should be processed are available.

SIC results:

- As the Russian-speaking water management organizations network is developing, the electronic reference book "Who is Who in Water Management" is being developed by including the CIS organizations' personnel. On the basis of collected materials the electronic reference book "Who is Who in Water Management" is created as an Access DB in Russian and in English, and is placed on the portal (Fig. 5).

5 NFP results:

- Information about personnel in national water management organizations is being collected.

Indicators: The electronic reference book "Who is Who in Water Management" is created as the DB Access and is placed on the portal and contains 241 records in Russian and in English.

Milestones: February-June: Making of the e-reference book "Who is Who in Water Management of Central Asia" within Access; October - the E-Guide has been placed on the portal.

ID	Country	Name	Place of Employment	Position	Professional Specialization
1	Kyrgyzstan	Tydyshbay Yonson Ismayilbekovich	State Acad SCRC	Head of SCRC	Hydraulic engineer
2	Kyrgyzstan	Abdymalik Kyrgyzbayev Kalybekovich	Department of water economy, Ministry of agriculture and water economy and Processing Industry of the Republic of Kyrgyzstan	General Director	Hydraulic engineer
3	Kyrgyzstan	Reymonov Nurbekali Farmanovich	Director of construction enterprises of Department of water economy, Ministry of agriculture and water economy of the Republic of Kyrgyzstan	Director	Hydraulic engineer
4	Kyrgyzstan	Makhsudova Olga Rashidovna	Kyrgyz SRI of irrigation	Engineer (IT category)	Programmer
5	Kyrgyzstan	Bunibayeva Larisa Soyuzbekovna	CAREWIB	National coordinator of project in Kyrgyzstan	mathematician
6	Kyrgyzstan	Oerachensko Lyubov Petrovna	Kyrgyz SRI of irrigation	Part-programmer engineer	applied mathematics
7	Kyrgyzstan	Bibobokova Larisa Fedorovna	Direction of construction waterworks of Department of water economy, Ministry of agriculture and water economy of the Republic of Kyrgyzstan	Lead high flier on economy	hydraulic engineer
8	Kyrgyzstan	Khandina Galina Alekseevna	"Second project of intereconomic irrigation" under Ministry of Agriculture and Water Economy and Processing Industry of the Republic of Kyrgyzstan	Specialist on monitoring and assessment	agronomical economist
9	Kyrgyzstan	Zamyatovskaya Natalya Sergiyevna	Kyrgyz SRI of irrigation	Laboratory chief	programming
10	Kyrgyzstan	Joldoshev Iskander Aymatovich	Department of water economy, Ministry of agriculture and water economy and Processing Industry of the Republic of Kyrgyzstan	Head of department of tech. expertise and investme	hydraulic engineer
11	Uzbekistan	Begimov Ismail	SAWRI	Head of department	Automation of management water resources systems
12	Uzbekistan	Galustyan Azuka Genadyevna	SIC ICWC	Office manager	hydraulic engineer
13	Uzbekistan	Sonokin Denis Anatolyevich	SIC ICWC	Head of department	hydraulic engineer
14	Uzbekistan	Dukhovny Viktor Abramovich	SIC ICWC	Director	Land reclamation and water industry
15	Uzbekistan	Pinkhasov Mier Anatoly	SIC ICWC	Consultant-economist	Economics of water industry
16	Uzbekistan	Khaz Anataliy Vladimirovich	SIC ICWC	Head specialist	programmer
17	Uzbekistan	Masumov Rustam Rakhimovich	SIC ICWC	Consultant	hydraulic engineer
18	Uzbekistan	Mitseyev Nazir Nazarovich	SIC ICWC	Leader of institutional block	Water management
19	Uzbekistan	Neroczin Sergey Alekseevich	SIC ICWC	Regional expert on agronomy	Agromony
20	Uzbekistan	Puliatov Abbas Gusevich	SIC ICWC	Head of department	hydraulic engineer

Figure 5 – General view of “Who is Who in Water Management” database

### Result 1a.5. Establishment of a virtual water community of CAR. Results of discussions, overviews of participants’ feedback and experience at forums of the Portal

Situation at the beginning of 2009: Low activity at the portal’s forum.

*The activity has been decided to stop according to the PSC decision of 26 February 2009.*

### Result 1a.6. Knowledge Base on the Use of Water and Land Resources of the Aral Sea Basin

Situation at the beginning of 2009: KB on the priority themes of the use of water and land resources of the ASB has been created and made available in Russian and in English.

SIC results:

- Information on 179 pilot projects that have been implemented in the region earlier has been added into the existing KB on the use of water and land resources of the ASB (Fig. 6).
- The database as CD version has been prepared for dissemination (see 2.4)

Indicators: Information scope has been increased; information quality and convenience of KB use have been improved. In total KB contains information on 388 pilot projects implemented early in the region.

Milestones: Updating the KB with new information monthly.

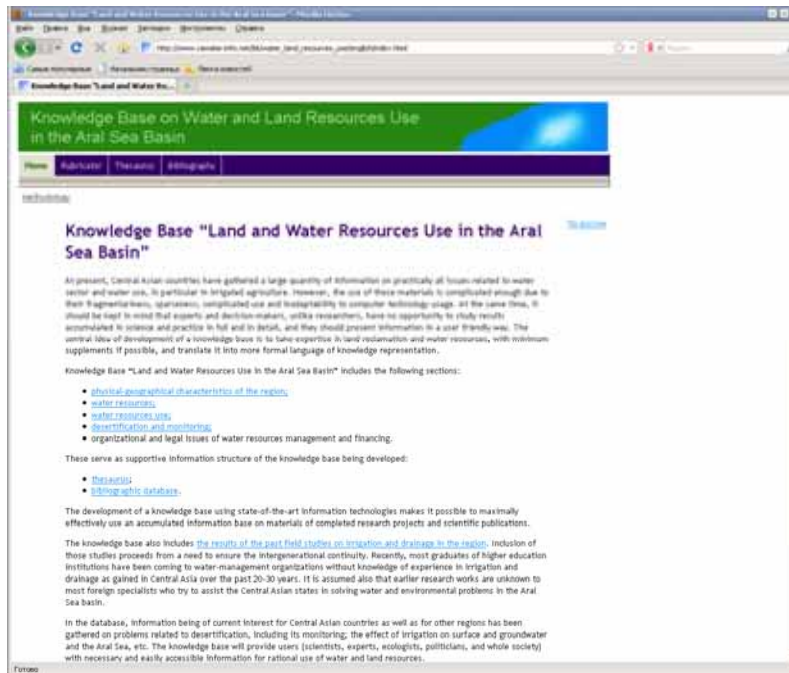


Figure 6 – Knowledge Base “Water and Land Resources Use in the Aral Sea Basin”

## Result 1a.7. Knowledge Base with information from the “IWRM-Fergana” Project to facilitate effective extension services to WUAs and farmers

Situation at the beginning of 2009: KB on the “IWRM-Fergana” Project results has been created and is being filled with information.

SIC results:

- 449 reports, brochures and other materials of the “IWRM-Fergana” project, “WLPI” project, GWP CACENA and other partners have been placed into the knowledge base (Fig. 7), including 8 manuals of the “WLPI” project.
- This KB is included in the list of GWP ToolBoxes (along with the KB “Gender and Water in Central Asia”).
- The database as CD version has been prepared for dissemination (see 2.4)

Indicators: More information related to extension services for farmers and WUA and Water Management organizations is available via this KB.

Milestones: Updating the KB with new information monthly.

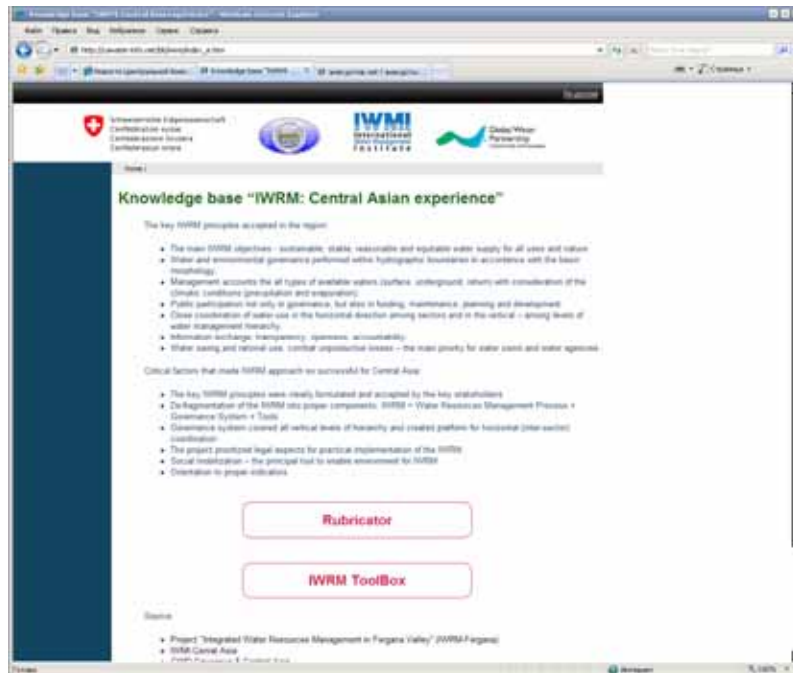


Figure 7 – Knowledge Base “Integrated Water Resources Management: Central Asian Experience”

**Result 1a.8. Portal information is available and updated in two languages.**

Situation at the beginning of 2009: In some portal sections the information in Russian is still prevailing (percentage of information in English: all the DBs and KBs - 100%; other sections - from 60 up to 100%).

SIC results:

- The materials translated into English are being increased progressively that promotes involvement of additional English-speaking audience to the portal.

Indicators: Increased percentage of bi-lingual website with a good quality of English content. All databases and knowledge bases – 100%; other sections – from 60 to 100%.

Milestones: Daily

**Result 1a.9. Creation of the regional water quality database**

Situation at the beginning of 2009: There are water quality data available on the portal, but it is not arranged in single section, and therefore can't be used extensively.

SIC, UNECE and GRID-Arendal results:

- Project staff took part in the introductory seminar of the UNECE project "Water Quality in Central Asia" in Bishkek.
- In case of the separate financing under the UNECE project "Water Quality in Central Asia" the format preparation for the database on water quality will be started and further developed.

Indicators: Water quality information more readily available.

Milestones: December

### **2.1.1. Block 1b. FURTHER DEVELOPMENT OF THE INFORMATION SYSTEM**

The main outcome of the national information systems creation is the integration of all five national information systems into the common regional online system, which cover the whole Central Asia after the addition of other Central Asian regions beyond the Aral Sea Basin.

#### **Objectives for 2009:**

- 1b.1. Development of new GIS layers.
- 1b.2. Updating of the database and adding new informational blocks to meet the needs of models and GIS.
- 1b.3. Improvement of the system's interface in terms of decision support elements, GIS and interpretation of results.
- 1b.4. Testing of the Information System in "modeling" and "analysis" modes.
- 1b.5. Production and submission of analytical reports to ICWC members in accordance with their requests.
- 1b.6. Production and regular distribution of analytical reviews to water organizations, linking hydro-meteorological data to water-related information, analyses of river-channel and basin balances
- 1b.7. Transfer to the public domain of part of the IS data.

**Result 1b.1. The following GIS layers have been added: water management network, assessment of melioration conditions and productivity of lands, water availability in districts, situation in Prearalie, the Aral Sea, etc. Improved access to data and information on the Amudarya River basin**

Situation at the beginning of 2009: Thematic layers of cartographic information necessary for national focal points (NFP) were determined. The national points in the Aral Sea basin submitted requests to respective departments on gathering cartographic information

SIC results:

- The GIS-files were developed on the basis of available cartographic information by specialists of SIC ICWC. This material was processed and integrated into the regional information system and available through Internet;
- The GIS-files are available for users registered in the regional online information system; the following regions are accessible: Uzbekistan (Tashkent, Jizzak, Namangan, Syrdarya, Fergana, Khorezm, Navoiy, Bukhara, Karakalpakstan areas), Tajikistan (Khatlon and Sogd, provinces subordinated to the Republic), Kyrgyzstan (Osh, Batkent, Djalalabad areas), Kazakhstan (South Kazakhstan, Kzylorda areas).
- The development of GIS-layers for all Turkmenistan has started using finances from the Turkmen NFP budget (budget line "translations") under the agreement with SDC.

5 NFP results:

- Gathering the cartographic information on the country's provinces and its transmission to SIC with subsequent integration into national information GIS systems by SIC specialists.
- Adjustment of GIS-information jointly with the SIC specialists.

Indicators: New GIS-layers for: Uzbekistan - 40, Southern Kazakhstan - 2, Tajikistan - 20, Kyrgyzstan - 20.

Milestones: Quarterly

### **Result 1b.2. Information needed for modeling and GIS is available within DB (ecology, climate and energy)**

Situation at the beginning of 2009: An agreement was reached with UDC "Energy" on providing hydropower information to the regional IS on the whole Aral Sea basin. Information has been gathered and entered into the blocks of the regional DB for 2008, and transmitted to SIC by the project correspondents of five states.

SIC results:

- Gathering and input of climatic, environmental (water quality) and hydropower information into the regional DB and its transmission to NFP

5 NFP results:

- Establishing of sustainable bilateral relationships on mutually beneficial information exchange with national departments on ecology, hydrology and energy.

Indicators: Increased volume of DB with data for 2008 and partially for 2009.

Milestones: Quarterly

### **Result 1b.3. The improved interface links the database, models and new analytical blocks**

Situation at the beginning of 2009: Some program modules are developed in the online regional information system interface.

SIC results:

- Module for integrating new GIS-files into the regional online system.
- Module for searching for lacking data in the online regional information system (this module was developed on the requests of regional correspondents for more easy data input into the online DB).
- Modules for import and export of tabular data into the Excel format from the online regional information system (Fig. 8).

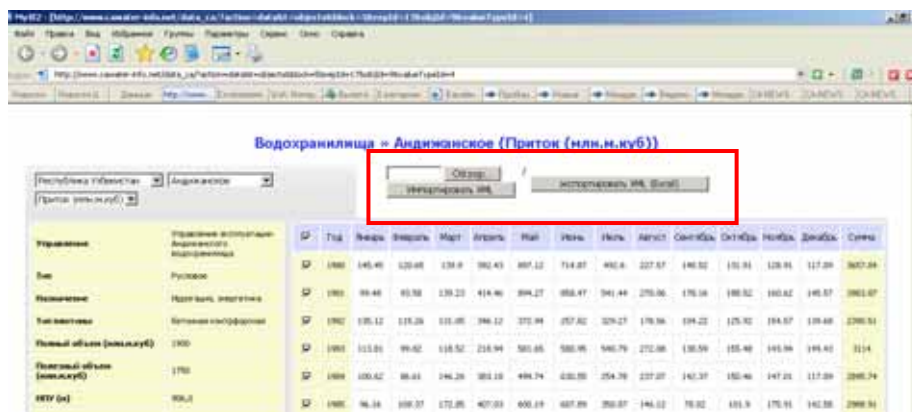


Figure 8

5 NFP results:

- Proposals on improvement of the online database interface and its use for the working tasks of NFPs.

Indicators: 5 new forms for each of areas have been added to the interface (total: 140).

Milestones: Quarterly

**Result 1b.4. The system has been successfully tested by external users and experts**

Situation at the beginning of 2009: The module for preparation of analytical reports on the basis of the online DB data has been tested by the project experts: selection of years-analogues; prediction of inflow; analysis of actual and planned regimes; analysis of deviations; analysis of water situation

SIC results:

- Information system testing under modeling mode according to development of analytical program modules by external users and experts has not been conducted. This activity is shifted to YPO 2010 and to be completed by the end of phase

5 NFP results:

- Training (together with SIC specialists) on handling analytical modules and their introduction into analytical work of the national water ministry/authority was not conducted.

Indicators: Increased accuracy of the system and number of modeling iterations to eliminate discovered errors

Milestones: December

### **Result 1b.5. Analytical reports have been submitted to ICWC members**

Situation at the beginning of 2009: The analytical block for preparing monthly the analytical reports for ICWC members in the regional information system has been developed. The analytical reports allow to implement an integrated assessment of water situation in the Amudarya and Syrdarya river basins and the river reaches. The full analytical report on the vegetation period 2008 is placed on the portal.

SIC, BWO Amudarya and BWO Syrdarya results:

- Analytical tools applicable to water management issues of states were developed .
- The seasonal analytical reports on operation effectiveness of multipurpose water-resources schemes of the Amudarya and Syrdarya river basins for vegetation and non-vegetation periods are available on the portal from 2008 till now.

Indicators: Analytical reports were prepared monthly. The seasonal analytical reports for vegetation and non-vegetation periods from 2008 till now are available on the website – Total: 4.

Milestones: Monthly

### **Result 1b.6. Analytical reviews allowing to expose the water resources reserves within the region, each country and sub-basins**

Situation at the beginning of 2009: ICWC members have approved the dissemination of the full monthly analytical reports to all ICWC members and of the brief ten-day analytical reviews from the project website

SIC results:

- List of persons interested in the analytical reviews prepared by the SIC have been identified, and the automation procedures for preparation of analytical reports for external information users have been developed.

5 NFP results:

- List of persons (within each country) interested in the analytical reviews issued by the SIC have been identified.

Indicators: Analytical reviews have been prepared and are being updated each ten-day period in the portal section "Analytics".

Milestones: Every ten-day period.

### **Result 1b.7. Major part of the IS is available through the Portal**

Situation at the beginning of 2009: Major portion of the regional information system (Database) is available through the Portal.



SIC results:

- Data for 2008 and partially for 2009 is added.
- The Guide on the water management bodies is placed in the portal.
- GIS is placed in the portal.
- The database on characteristics and long-term data (from 1980 up to now) according to the water management objects (reservoirs, rivers, canals, drains, climate stations, main hydrological stations, and water intake structures) is placed on the portal (Fig. 9).
- Translation of the online DB from Russian into English made.

5 NFP results:

- Data of each country is added to the online IS.

GRID-Arendal and UNECE results:

- Evaluation of the interactive mapping component and preparation of service upgrade options
- Facilitation of a proposal and brokering an agreement with the German Government (GTZ) for funding the establishment of an interactive GIS service at SIC ICWC.

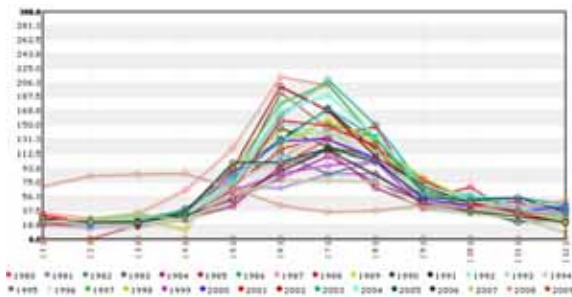
Indicators: 98 parameters on sections of the IS and also the database on characteristics and long-term data on the water management objects (from 1980 up to now) totally for 5 countries and their regions are available through the portal.

Milestones: As agreed with ICWC members.

**Водохранилища » Папанское (Приток (млн.м.куб))**

Иркутская Республика		Папанское		Обзор											
Приток (млн.м.куб)		Информировать ИМ													
Управление	Суточное	Год	Январь	Февраль	Март	Апрель	Май	Июнь	Июль	Август	Сентябрь	Октябрь	Ноябрь	Декабрь	Сумма
Тип	Русловое	1900	0	0	18.29	36.35	90.10	96.94	130.26	101.92	66.58	52.14	37.75	27.24	665.65
Назначение	Ирригация и водоснабжение города Оя	1901	26.45	19.02	19.0	30.90	60.56	67.46	85.4	86.44	50.17	39.10	31.1	27.9	560.46
Тип плотины	Земляная	1902	20.91	18.86	19	25.46	90.64	103.19	150.34	133.54	64.96	41.19	36.18	27.96	732.13
Полный объем (млн.м.куб)	260	1903	23.48	22.04	23.02	34.71	72.94	112.74	85.97	102.72	52.5	33.34	24.14	25.25	622.75
Полный объем (млн.м.куб)	240	1904	23.18	18.79	17.85	27.14	51.19	80.89	109.05	74.29	49.55	49.31	49.55	25.27	576.06
НПУ (м)	1282	1905	18.51	17.44	16.53	26.59	43.83	96.21	116.08	67.2	42.7	37.64	28.73	21.38	532.84
ГРУ (м)	1225	1906	18.12	14.47	17.53	30.11	76.27	161.61	209.62	149.48	71.66	55.07	42.29	42.4	809.63
Средняя длина при НПУ (м)	7000	1987	34.81	27.89	33.63	64.89	119.39	213.11	202.11	130.94	66.64	49.53	40.12	34.41	1017.47
Средняя ширина при НПУ (м)	1600	1988	27.34	24.39	25.51	24.66	71.15	117.85	134.67	147.02	52.03	68.3	29.34	26.69	748.95
Максимальная глубина (м)	87	1989	24.08	20.39	21.75	24.91	78.26	143.6	136.32	120.01	66.23	46.29	22.09	20.04	741.97
Площадь зеркала при НПУ (кв.км)	7,1	1990	21.19	22.41	25.67	33.62	79.14	145.54	120.89	107.77	66.31	42.67	31.47	27.53	724.21
Максимальная высота дамбы (м)	100	1991	23.33	21.72	24.44	39.33	80.78	130.22	170.47	116.72	66.31	38.99	22.55	22.8	757.66
		1992	21.61	19.99	23.9	34.31	79.45	151.83	139.49	105.54	64.51	60.49	43.08	36.51	700.91

Длина дамбы по гребню (м)	93	☑	1993	25.45	21.22	26	33.26	88.49	133.9	141.26	115.85	61.15	37.97	27.01	20.57	732.13
Ширина дамбы по гребню (м)	25	☑	1994	19.56	22.39	27.66	30.26	70.50	102.45	142.69	100.21	60.13	36.77	37.49	27.8	694.19
Расчетная высота волны (м)	1,2	☑	1995	21.04	19.25	22.61	29.79	71.31	192.31	145.66	123.24	39.32	43.85	39.61	29.13	777.12
Тип ГЭС	-	☑	1996	21.76	17.03	22	37.50	57.97	105.96	149.53	109.00	52.01	43.93	29.04	24.79	673.30
Мощность ГЭС (МВт)	-	☑	1997	21.7	25.3	30.3	33.6	87.1	170.9	204.5	130.4	69.9	40.2	34	20.6	004.5
Проектная продолжительность залегания (лет)	100	☑	1998	23.8	21.1	25.2	12.7	97.2	124	156.3	128.4	80.8	51.6	36.5	25.7	783.3
Площадь орошаемая земель (тыс.га)	Кыргыстан - 30,1 / Узбекистан - 9,43	☑	1999	18.6	16.4	20.6	30.7	60.1	86.9	90	102.5	43.2	40.1	40	33.3	593.4
Год ввода в эксплуатацию	1905	☑	2000	23.5	19.9	24	34.7	87.1	120.3	130.3	105.0	52.6	43.1	37.0	41.8	720.9
Водоток	Река Ангрен	☑	2001	31.6	21.8	23.6	29.6	64.4	155.3	148.5	121.5	78	48.5	33.5	21.4	777.7
Бассейн реки	Сырдарья	☑	2002	20.8	10.3	19.6	37.4	92.6	200.0	160.6	100.3	70.7	45.1	25.9	31.57	849.67
Местоположение	Одская область, Меркутинский район	☑	2003	26.7	20.7	24.6	38	80.3	127.8	171.9	132.7	60.4	53.3	54.6	45.3	836.3
		☑	2004	26.5	18.7	24.3	29.8	71.7	160.9	189.6	135	72.4	52.2	39.9	31.9	860.9
		☑	2005	26.06	21.4	21.24	34.19	100.72	101.94	110.1	102.6	55.51	50.76	54.7	35.02	722.24
		☑	2006	26.53	21.7	22.97	30.71	53.56	89.7	117.62	84.6	47.2	36.9	29.3	22.3	583.09
		☑	2007	22.9	27.4	35	24.7	59.5	77.5	77.9	77	39.4	33.61	28.7	8.33	511.94
		☑	2008	69.63	83.21	85.82	86.93	67.50	44.73	25.17	37.17	44.10	42.56	43.09	50.26	691.12
		☑	2009	0	0	0	0	0	0	0	0	0	0	0	0	



CAWATERinfo

Здравствуйте, Administrator.  
Управление | Выйти

БД по секторам

- ☑ Земельный
- ☐ Экономический
- ☐ Водохозяйственный
- ☐ КБ водоснабжение

БД по объектам

- ☐ Водоканализация
- ☐ Каналы
- ☐ Климатические станции
- ☐ Коллекторы
- ☐ Реки
- ☐ Головные водозаборы
- ☐ Гидропосты

ГИС

Центральная Азия >



Figure 9. On-line IS at the Portal

## 2.2. Production and dissemination of publications and other types of information

### Objectives for 2009:

- 2.1. Production and dissemination of publications.
- 2.2. Analysis of content downloading statistics to identify user groups and their preferences.
- 2.3. Dissemination of English and Russian versions of the "News-CAWater-Info" bulletin and advertising booklets to subscribers by Mailing List.

- 2.4. Production and distribution of CDs with e-learning materials.
- 2.5. Production and delivery of customized thematic maps upon requests of ICWC members.

**Result 2.1. Analytical and popular scientific publications on water, energy, floods, dams, Afghanistan, etc. have been produced and disseminated. IFAS materials, ICWC bulletins, SIC ICWC collected articles with general information, reviews and legal documents have been produced and disseminated.**

Situation at the beginning of 2009: Brochures, monographs and reports are being published and disseminated via e-mail and in hard copies

SIC results:

- Various brochures, monographs and reports have been published and disseminated. The following publications should be high-lighted:
  - Policies of the national information systems development of countries in the Aral Sea Basin.
  - Afghanistan and regional integration.
  - Summit of Heads of the States - founders of the International Fund for saving the Aral Sea (jointly with the EC IFAS, see Result 3.5).
  - Rysbekov Yu.Kh. Transboundary cooperation on the international rivers: problems, experience, lessons, experts' prognosis.
  - Afghanistan and transboundary water management issues.
  - 5th World Water Forum: Top 25 Highlights
  - Istanbul Ministerial Statement / Istanbul Declaration of Heads of States on Water / Istanbul Water Consensus on water supply
  - Istanbul Water Governance
  - The "IWRM-Fergana" project's posters and brochure.
- 2 abstract collections, 2 information collections, 2 ICWC bulletins, 2 law collections ("Normative Legal Documents on Gender Equality, Part 3: National Documents") and 3 bulletins "New in water management" have been issued.
- 128 publications in electronic format have been added to the e-library on the portal – SIC and its partners
- 57 publications on water law have been added into the Knowledge Base "International and National Water Law".
- Bulletins, brochures and other publications were regularly disseminated at workshops, conferences and so on

Indicators: 128 new publications were placed on the portal.

Milestones: Monthly

## **Result 2.2. Analytical report on information needs of users to enlarge the portal's regular audience.**

Situation at the beginning of 2009: Analytical report on statistics of site visits in 2008 available.

SIC results:

- The analytical report on site visits statistics was developed in 2008 (publication).

Indicators: An analytical report.

Milestones: December.

## **Result 2.3. Press-releases of IFAS and ICWC, the "CAWater-Info News" bulletin and advertising booklets of the Project are disseminated.**

Situation at the beginning of 2009: Bulletins, information/abstract/law collections, press-releases, booklets are being published and disseminated in the e-format and in hard copies

Activities of SIC:

- 99 bulletins "CAWater-Info News" and 13 press-releases of ICWC have been distributed via e-mail.
- The database on e-mail addresses consists of 670 Russian-speaking and 240 English-speaking addressees.

Indicators: 99 bulletins "CAWater-Info News" and 13 press-releases of ICWC have been distributed via e-mail.

Milestones: monthly

## **Result 2.4. CDs with digital learning materials are produced and disseminated.**

Situation at the beginning of 2009: CDs with digital learning materials are produced and disseminated.

SIC results:

- CD with CAREWIB training materials (textbooks, manuals) has been updated.
- CD with the Knowledge Base "Land and Water Resources Use in the Aral Sea Basin" has been prepared.
- CD with the Knowledge Base "IWRM: Central Asian experience" has been prepared.

Indicators: 3 CDs with digital training materials have been produced

Milestones: Upon completion

**Result 2.5. Thematic maps according to specific requests of the ICWC members are produced and delivered in time.**

Situation at the beginning of 2009: Specific requests from ICWC members to creation of thematic maps were placed under the NFP control.

SIC results:

- On the basis of new GIS-layers (see 1b.1) maps have been prepared for the following regions: Uzbekistan - 40, South Kazakhstan - 2, Tajikistan - 20, Kyrgyzstan - 20.

Activities of 5 NFPs:

- Cartographic information is being collected for the national information systems.

Indicators: 82 maps

Milestones: Upon request

**2.3. CAPACITY BUILDING OF WATER MANAGEMENT ORGANIZATIONS AND OTHER USERS AND INTEGRATING CAREWIB INTO DECISION-MAKING PROCESSES OF NATIONAL, REGIONAL AND INTERNATIONAL BODIES AS WELL INTO THE PUBLIC DEBATE**

**Objectives for 2009:**

- 3.1. Training and consulting of NIS developers in the context of NIS formation
- 3.2. NIS data (regional level) is transferred to IS.
- 3.3. Training of national water management organizations personnel on the use of NIS in daily operations
- 3.4. Training of NGOs and other stakeholders on the use of the Portal's and IS applications in their daily activities
- 3.5. Integration of CAREWIB into decision-making processes, (e.g. IFAS, ICWC, ICSD, EurAsEC, national ministries, donors etc) by presenting the CAREWIB possibilities during the meetings of these organizations.

Seminars attended by NFPs personnel and representatives of national water management organizations were held in Kazakhstan, Kyrgyzstan, Turkmenistan and Tajikistan; consultations of NFP's personnel were conducted in Uzbekistan.

**Result 3.1. NIS developers have been trained: 2 seminars per year have been held in each country, and consultation were provided upon request**

Situation at the beginning of 2009: National focal points have been established at the ministries of water resources. Computer equipment has been purchased and delivered. Templates of national IS have been created. Data on provinces and states as a whole available in the regional IS have been delivered to each NFP. In 2008, training workshops were held in all CA countries. 5 manuals were prepared.

SIC results:

- Manuals have been prepared and updated:
  - Manual on using the CAREWater-Info portal in daily activity (8th edition, updated).
  - Manual on using the Regional Information System of the Aral Sea Basin's countries. Methodical Guide of developing the Information System for water management sector at the national level.
  - Manual on the Content Management System (CMS) for the National Focal Points (2d edition, updated).
  - Manual on using Knowledge Bases of the CAREWater-Info portal in daily activity (5th edition, updated).
  - Manual on use of CAREWIB Database (4th edition, updated)
  - Manual on using the Geographic Information System (GIS) for National Focal Points.
  - Manual on the CAREWater-Info portal information retrieval (2d edition, updated).
  - Manual on using the CAREWater-Info portal forum in daily activity.
- Maintenance of equipment transferred to national focal points has been carried out; some modernization has been made;
- Training seminars for NIS developers have been conducted locally (see Result 3.3)

5 NFPs results:

- Relations with NGOs, NHMS, water management and environmental institutions of the republic in order to receive information for the national DB are established.
- Information is being entered into the national information systems.
- Data for the regional information system according to the Memorandum about Mutual Understanding is regularly being delivered.

Indicators: 8 training seminars and 16 consultations have been conducted.

Milestones: Two training seminars per year in each country; consultations - as required

**Result 3.2. Information System is being regularly updated by national data collected within the Aral Sea basin.**

Situation at the beginning of 2009: The other provinces of the states not belonging to the Aral Sea basin were added to the national information systems (DB)

SIC results:

- As Information System is placed on the portal, see item "results" in the Result 1b.7

5 NFP results:

- As Information System is placed on the portal, see item "activity" in the Result 1b.7

Indicators: See Result 1b.7

Milestones: December

**Result 3.3. Training seminars for representatives of water management organizations and consultations upon request have been conducted. Advanced technologies is applied for the benefit of information support in Central Asia**

Situation at the beginning of 2009: In 2006-2008 a series of training seminars for representatives of the national water management organizations was held.

SIC results:

- Training seminars have been prepared and held for the personnel of the national focal points with participation of representatives of national water management organizations:
  - 16-17 April, Shymkent, Kazakhstan (5 participants)
  - 19-25 May, Bishkek, Kyrgyzstan (19 participants)
  - 08-10 June, Astana, Kazakhstan (14 participants)
  - 23-26 June, Tashkent, Uzbekistan, for NFPs of Tajikistan (8 participants)
  - 9-16 September- Ashgabad, Turkmenistan (15 participants)
  - 28 September-1 October- Astana, Kazakhstan (15 participants)
  - 13-14 October - Khodjent, Tajikistan (9 participants)
  - 29-31 October - Bishkek, Kyrgyzstan (22 participants)
- Regional seminar to discuss the Report on 2008 and Work plan for 2009 was held in Tashkent, 26 February (44 participants)

Indicators: 8 training seminars and 1 regional seminar were held (Total: 144 participants)

Milestones: Once a year

**Result 3.4. Participation of representatives from NGOs and other stakeholders in regional seminars were organized.**

Situation at the beginning of 2009: Representatives of NGOs and other stakeholders took part in the seminars organized in 2006-2008.

SIC results:

- Representatives of NGOs and other stakeholders were invited to participate in the training seminars.
- Uzbekistan's NGOs Ecoforum<sup>1</sup> and SIC's personnel participated in seminars organized by both parties and communicated.

Indicators: Stable collaboration with the Ecoforum of NGOs in Uzbekistan was organized.

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<sup>1</sup> Ecoforum NGOs of Uzbekistan consists of 30 ecological NGOs.

Milestones: Once a year

**Result 3.5. CAREWIB is recognized by IFAS and other important regional and national organizations as an official system for keeping records, data collection and use, data analysis and modeling of water and land resources in the Aral Sea basin**

Situation at the beginning of 2009: The Portal and the Information System were presented many times at international conferences and workshops with participation of representatives from IFAS, ICWC, ICSD, EurAsEC, ministries of the states, and other organizations

SIC, UNECE, GRID-Arendal results:

- The CAREWIB Information System and the CAWater-Info portal were presented at:
  - 5 World Water Forum, Istanbul, Turkey, 16-22 March;
  - Meeting of experts related to the water management and energy sectors of the states- the IFAS founders, Almaty, 1 April;
  - Meeting of experts from the water management and energy sectors before the Summit of the Heads of the States - the IFAS founders, Almaty, 26-28 April;
  - World Water Council's General Assembly, Marseille, France, 14-16 October
  - Meeting of experts on water management and energy sectors, Almaty, 10-11 November
  - 5th session of the Meeting of the Parties to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Geneva, Switzerland, 10-12 November 2009
  - 60th IEC Meeting & 5th Asian Regional Conference, New Delhi, India, 6-12 December 2009.
  - First Working Group on Strengthening Institutional and Legal Frameworks and Aral Sea Basin Programme - 3, Almaty, Kazakhstan, 10-11 December 2009.
- Brochure "Summit of the Heads of States – founders of the International Fund for saving the Aral Sea" was prepared and published jointly with EC IFAS.

Indicators: 5 National water management organizations is using the CAREWIB Information System as an official information channel. The CAREWIB IS is proposed to be included into "Aral Sea Basin Programme 3", which is now being worked out.

Milestones: Throughout the project implementation.

**2.4. ENSURING THE LONG-TERM POLITICAL AND FINANCIAL SUPPORT TO CAREWIB**

**Objectives for 2009:**

- 4.1. Regular dialogues with partners important for future financial and informational support: national authorities in the region, donors, projects,



NHMS in CAR. Searching the PIUs and organizations that need tools and information to facilitate their activity.

- 4.2. Conclusion of agreements on information exchange and cooperation (SDC monitoring and information projects, IFAS bodies, international water NGOs).
- 4.3. Advertisement of the Portal and Information System within the region and search for inter-national advertisers.
- 4.4. Development of contacts with Afghanistan for information exchange.

**Result 4.1. Financial conditions for further sustainable functioning of the CAREWIB are fully or partly set up after the Project is completed.**

Situation at the beginning of 2009: Business plan has not been developed yet

SIC, UNECE, GRID-Arendal results:

- "CAREWIB development strategy in the framework of information service development for the water sector in Central Asia" (where the main ways of information service's further development in the region with participation of interested parties were proposed) has been developed in lieu of the business plan.

Indicators: Strategy

Milestones: December - first edition of Strategy

**Result 4.2. Practical cooperation has been established and formalized with key important institutions within their spheres of activities**

Situation at the beginning of 2009: Bilateral cooperation was established with 13 organizations within the region, with which information is regularly being exchanged; beyond the region: with the World Water Council, International Network of Basin Organizations, Global Water Partnership for Central Asia and Caucasus

SIC, UNECE, GRID-Arendal results:

- Further cooperation with partners according to the concluded agreements (mutual participation in the workshops, seminars, conferences; exchange of publications and others).
- Agreements on cooperation with 33 organizations have been concluded, including: 14 - Central Asia, 2 - Belarus, 2 - Azerbaijan, 6 - Russia, 7 - Ukraine, 2 - Moldova
- Agreement about cooperation has been concluded with the International Office for Water (France).
- The project-proposal "Improving exchange with information on water resources in the EECCA countries using CAREWIB-project experience (Phase II)" for 2009 was prepared by SIC jointly with UNECE. The financial support from the Government of Russian Federation was granted.
- A project for South Caucasus building on the experience of CAREWIB is being discussed with partners in this region.

Indicators: Bilateral cooperation with 33 organizations with which information is regularly being exchanged within CIS has been established.

Milestones: Throughout the project implementation.

**Result 4.3. Advertisers were identified and agreements on placing ads at the Portal were made.**

Situation at the beginning of 2009: Contracts with advertisers were not made.

SIC results:

- Attempts have been undertaken to make agreements with advertising internet-systems but success wasn't reached: Google and Yandex refused agreement "because the portal doesn't correspond to the needed requirements" (it may be that this negative response was because our proposal was not commercial).

Indicators: Income through advertising

Milestones: Throughout project implementation

**Result 4.4. Information and data from Afghanistan are being placed at the portal step by step**

Situation at the beginning of 2009: The portal has a section dedicated to Afghanistan (news block, database on rivers). 2 analytical reviews were published

SIC, UNECE and GRID-Arendal results:

- News about Afghanistan are placed on the portal
- Materials were translated; 2 publications "Afghanistan and regional integration" and "Afghanistan and transboundary water management issues" were issued
- Contact was maintained with potential stakeholders in Afghanistan (UNOMIG / UNDP, national agencies)
- New contacts established and interest in cooperation solicited with officials from Afghanistan's Ministry of Water, the Hydrometeorological Service and the National Environment Protection Agency (meetings in Tashkent, Geneva)
- Terms of reference developed for a feasibility study on integrating Afghanistan's information into CAREWIB (to be initiated once approval is granted in Tashkent for a CAREWIB-facilitated meeting on water cooperation with Afghanistan)

Indicators: Information on Afghanistan including materials of the Government of Afghanistan is available through the portal; 2 publications were issued.

Milestones: Throughout the project implementation.

### 3. Milestones and outputs of the project

Table 3.1 shows the most important results and milestones for 2009.

Table 3.1  
Important results and milestones of the CAREWIB Project in 2009

Item	Place	Date
Swiss mission for water sector monitoring	Tashkent	17 February
Regional workshop on the project with the participation of all NFPs and meeting of the Supervisory Committee of the project	Tashkent	26 February
5th World Water Forum	Istanbul	16-22 March
UNECE-CAREC Regional seminar "Harmonization of standards and water quality standards in Central Asian countries"	Bishkek	3-4 March
Presentations of the CAREWIB and "IWRM-Fergana" projects during the meeting of journalists and the public at the UNDP office.	Tashkent	22 March
Meeting of experts related to the water management and energy sectors of the states-the IFAS founders	Almaty	1 April
Training workshop on formation of a national information system in the Republic of Kazakhstan	Shymkent	16-17 April
Meeting of experts from the water management and energy sectors before the Summit of the Heads of the States - the IFAS founders	Almaty	26-28 April
Training workshop on formation of a national information system in the Republic of Kyrgyzstan	Bishkek	29-30 May
Training workshop on formation of a national information system in the Republic of Kazakhstan	Astana	13-15 June
Training workshop on formation of a national information system in the Republic of Tajikistan	Tashkent	23-26 June
Training workshop on formation of a national information system in Turkmenistan	Ashgabad	9-16 September
Training workshop on formation of a national information system in the Republic of Kazakhstan	Astana	28 September - 1 October
Training workshop on formation of a national information system in the Republic of Tajikistan	Khodjent	13-14 October

Item	Place	Date
Training workshop on formation of a national information system in the Republic of Kyrgyzstan	Bishkek	29-31 October
Meeting of the Parties of the UNECE Water Convention	Geneva	10-12 November
Workshop on practical and strategic aspects of the CAREWIB project's development.	Geneva	25-27 November
Meeting of SIC project staff on organizational issues (under the guidance of Prof. V.A. Dukhovny)	Tashkent	Monthly

#### 4. Constraints and lessons learned

The main constraints to be taken into consideration in further activities are shown in the following findings:

1. A poor activity of the NFPs in Tajikistan and Turkmenistan with regard to overall project activity as well as translation into the national languages. These activities have to be accelerated in order to make up for lost time.

#### 5. Outlook for 2010

The improvement of the IWRM knowledge base will be continued (on the basis of materials of the "IWRM-Fergana" project). This will allow for improving quality and efficiency of consulting services for the farmers and WUAs.

The CAREWIB Information System shall be included in a meta-database on water resources in EECCA being developed by UNECE.

Partnerships shall be established with water management organizations of Azerbaijan, Armenia and Georgia through GWP CACENA to exchange experience on the development of IS. Technical support for facilitating such work can be provided through UNEP / GRID-Arendal's network in the Caucasus.

It is necessary to further strengthen and develop cooperation and relationship with organizations beyond the region within the established Russian-speaking water management organizations network. The Portal and Information System should become one of "the cornerstones" in this network. This network will include national water management and environmental organizations in Russia, Ukraine, Belarus, Armenia, Azerbaijan, Moldova, Georgia and Central Asia.

A decision of the ICWC members about transformation of the CAREWIB online IS on

the Aral Sea Basin to the IS on Central Asia is needed, and the national data collection for the IS on the provinces of the states outside the Aral Sea Basin should be continued.

## **6. Annexes**

Annex 1. List of Abbreviations

Annex 2. List of workshops conducted under project

Annex 3. List of publications under project

Annex 4. List of the CAWater-Info portal links

Annex 5. Statistics of the portal visits

## **Annex 1. List of Abbreviations**

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

## Annex 2. List of workshops conducted under project

Activity	Name of Event	Date	No of days	Place, country	Responsible	Institution	Type of event	Purpose	Target Audience	Number of Participants (M/F)	Direct Costs (USD)	Direct Costs/Participant/day (USD)	Follow up activities
3.3.	Regional workshop on the project attended all National Focal Points	26 February	1	Tashkent UZ	I. Beglov	SIC	Regional workshop	Discussing problems on development of the national information systems and the work plan for national focal points (NFP) in 2009	NIS developers	44 (36/8)	7166	163	According to YPO 2009
3.3.	The training seminar on the creation of the national information system in the Republic of Kazakhstan	16-17 April	2	Shymkent KZ	A. Kats	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NIS developers	5 (3/2)	571	57	According to YPO 2009
3.3.	The training seminar on the creation of the national information system in the Republic of Kyrgyzstan	13-15 May	3	Bishkek KG	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NIS developers	19 (9/10)	5335	94	According to YPO 2009

Activity	Name of Event	Date	No of days	Place, country	Responsible	Institution	Type of event	Purpose	Target Audience	Number of Participants (M/F)	Direct Costs (USD)	Direct Costs/Participant/day (USD)	Follow up activities
3.3.	The training seminar on the creation of the national information system in the Republic of Kazakhstan	8-10 June	3	Astana KZ	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NIS developers	14 (8/6)	3608	86	According to YPO 2009
3.3.	The training seminar on the creation of the national information system in the Republic of Tajikistan	23-26 June	4	Tashkent UZB	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NIS developers	8 (7/1)	1771	55	According to YPO 2009
3.3	The training seminar on the creation of the national information system in Turkmenistan	9-16 September	8	Ashgabad Turkm	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NFP of Turkmenistan	15 (13/2)	4663	39	According to the protocol and YPO 2009
3.3	The training seminar on the creation of the national information system in the Republic of Kazakhstan	28 September-1 October	4	Astana KZ	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NFP of Kazakhstan	15 (9/6)	3222	54	According to the protocol and YPO 2009
3.3	The training seminar on the creation of the national information system in the Republic of Tajikistan	13-14 October	2	Khodjent Taj	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NFP of Tajikistan	9 (6/3)	1158	64	According to the protocol and YPO 2009



Activity	Name of Event	Date	No of days	Place, country	Responsible	Institution	Type of event	Purpose	Target Audience	Number of Participants (M/F)	Direct Costs (USD)	Direct Costs/Participant/day (USD)	Follow up activities
3.3	The training seminar on the creation of the national information system in the Republic of Kyrgyzstan	29-31 October	3	Bishkek KG	I. Beglov	SIC	Training	Training on establishment and development of NIs for the NFP's staff	NFP of Kyrgyzstan	22 (11/11)	4614	70	According to the protocol and YPO 2009

### Annex 3. List of publications under project

The SIC's e-publications distributed through portal and mailing list are included in the list of publications.

Activity	Name	Date	Publisher
2.1.	Analytical Report on statistics of the CAWater-Info portal's websites' visits (2008)	January	CAREWIB Project
2.1.	Strategies of National Information Systems development	January	CAREWIB Project
2.1.	Guidelines for use of the CAREWIB's Databases on-line	February	CAREWIB Project
2.1.	Development of Water Information Network in CIS using as an example and with the involvement of the Information System and Water Portal "CAREWIB" (Progress report for 2008)	February	CAREWIB Project
2.1.	Integration of Stakeholders for Improving Water Governance (leaflet)	March	«IWRM-Fergana» Project
2.1.	Introduction of advanced technologies in WUA "Akbar-Abad" (leaflet)	March	«IWRM-Fergana» Project
2.1.	Social Mobilization (leaflet)	March	«IWRM-Fergana» Project
2.1.	SCADA system in Central Asia (leaflet)	March	«IWRM-Fergana» Project
2.1.	Role and importance of water accounting in Associations of Water Users (leaflet)	March	«IWRM-Fergana» Project
2.1.	Management Information System "Ferghana" (leaflet)	March	«IWRM-Fergana» Project
2.1.	Environmental requirements of the "IWRM-Ferghana" Project (leaflet)	March	«IWRM-Fergana» Project
2.1.	Reclamation matters in Water Users Assosiations (leaflet)	March	«IWRM-Fergana» Project
2.1.	Water Productivity Improvement at the Field Level (leaflet)	March	«IWRM-Fergana» Project
2.1.	Hydrographization (leaflet)	March	«IWRM-Fergana» Project
2.1.	Public participation (leaflet)	March	«IWRM-Fergana» Project
2.1.	"New in Water Management", No. 9	March	CAREWIB Project
2.1.	"New in Water Management", No. 10	April	CAREWIB Project

<b>Activity</b>	<b>Name</b>	<b>Date</b>	<b>Publisher</b>
2.1.	Istanbul Water Guide	April	CAREWIB Project
2.1.	ICWC Bulletin No. 51, April 2009	April	SIC ICWC
2.1.	Regulatory legal acts concerning gender equality. Part 3: National documents (SIC ICWC's Legal Collection, vol. 20)	April	SIC ICWC
2.1.	GWP Strategy 2009—2013	April	GWP CACENA
2.1.	Policy Brief 7 Investing in infrastructure: The value of an IWRM approach	April	GWP CACENA
2.1.	Policy Brief 8 Triggering change in water policies	April	GWP CACENA
2.1.	Integrated Water Resources Management	April	GWP CACENA
2.1.	A. Bahri - Managing the other side of the water cycle: Making wastewater an asset	April	GWP CACENA
2.1.	Guidelines for the Safe Use of Urine and Faeces in Ecological Sanitation Systems	May	GWP CACENA
2.1.	Guidelines on the Use of Urine and Faeces in Crop Production	May	GWP CACENA
2.1.	Urine Diversion: One Step Towards Sustainable Sanitation	May	GWP CACENA
2.1.	A Handbook for Integrated Water Resources Management in Basins	May	GWP CACENA
2.1.	Instruction for builders of water meters in WUA	May	«IWRM-Fergana» Project
2.1.	Demand management: method for correction of base tariffs for water services	May	«IWRM-Fergana» Project
2.1.	Demand management: paid water use	May	«IWRM-Fergana» Project
2.1.	Water governance: kinds and mechanisms of preventing and solving of water conflicts and disputes	May	«IWRM-Fergana» Project
2.1.	Water governance: creation and organization of Canal Water Committee (CWC) activity	May	«IWRM-Fergana» Project
2.1.	Water governance: creation and organization of Union of Canal Water Users (UCWU) activity	May	«IWRM-Fergana» Project
2.1.	Role of public participation in increasing of water management equity and efficiency	May	«IWRM-Fergana» Project
2.1.	Hydrographization theory and practice	May	«IWRM-Fergana» Project
2.1.	Theory and practice of integrated water resources management	May	«IWRM-Fergana» Project

<b>Activity</b>	<b>Name</b>	<b>Date</b>	<b>Publisher</b>
2.1.	Water management: water management methods	May	«IWRM-Fergana» Project
2.1.	Water management: water distribution monitoring and assessment	May	«IWRM-Fergana» Project
2.1.	Water management: water distribution indicators	May	«IWRM-Fergana» Project
2.1.	Water management: business plans drawing up and implementation	May	«IWRM-Fergana» Project
2.1.	Water management: classification	May	«IWRM-Fergana» Project
2.1.	Water management: terms and definitions	May	«IWRM-Fergana» Project
3.5.	Summit of the Founder-States of the International Fund for Saving Aral Sea	June	SIC ICWC, EC IFAS
4.4.	Afghanistan and Regional Integration	June	CAREWIB Project
2.1.	Yu. Rysbekov: Transboundary cooperation on the international rivers: issues, experiences, lessons, and experts' forecasts	June	SIC ICWC
2.1.	News in Water Management, No. 11	July	CAREWIB Project
2.1	Istanbul Ministerial Statement / Istanbul Declaration of Heads of States on Water / Istanbul Water Consensus on water supply (translation and publication on order of the World Water Council)	July	SIC ICWC
2.1	Istanbul Water Governance (translation and publication on order of the World Water Council)	July	SIC ICWC
2.1	5 World Water Forum: Top 25 Highlights (translation and publication on order of the World Water Council)	July	SIC ICWC
2.1	Gender and Water 1 - Introduction to Gender. What does it mean? (publication of SIC ICWC for the Alliance on Gender and Water problems)	August	SIC ICWC
2.1	Gender and Water 2 – Gender, water, sanitation and health (publication of SIC ICWC for the Alliance on Gender and Water problems)	August	SIC ICWC
2.1	Gender and Water 3 - Gender, water and climate phenomena (publication of SIC ICWC for the Alliance on Gender and Water problems)	August	SIC ICWC
2.1	Gender and Water 4 - Gender, water, agriculture and food (publication of SIC ICWC for the Alliance on Gender and Water problems)	August	SIC ICWC
2.1	Water supply and sanitation problems in countries of Central Asia and Southern Caucasus (regional review) - (issued by GWP CACENA)	August	SIC ICWC

<b>Activity</b>	<b>Name</b>	<b>Date</b>	<b>Publisher</b>
2.1	Special UN documents (SIC ICWC legal digest, No. 21)	August	SIC ICWC
2.1	SIC ICWC Information Digest "Transboundary water resources: sharing"	August	SIC ICWC
2.1	ICWC bulletin No. 52, August 2009	September	SIC ICWC
2.1	SIC ICWC Information Digest "Water Resources Management of Central Asia"	September	SIC ICWC
2.1	Abstracts bulletin of SIC ICWC No. 30	September	SIC ICWC
2.1	INBO bulletin No. 17 (translation and publication in Russian on order of INBO)	October	SIC ICWC
2.1	Water at a crossroad: Dialogue & Debate at the 5th World Water Forum (translation and publication on order of the World Water Council)	November	SIC ICWC
2.1	IOW bulletin "International News" No. 16 (translation and publication in Russian on order of IOW)	December	SIC ICWC
2.1	Improving management of drinking water supply and sanitation systems for people: IOW's publications (translation and publication in Russian on order of International Office for Water)	December	SIC ICWC
2.1	Problems and tasks of purposeful and efficient water resources use by farms (Proceedings of the Republican scientific and practical conference dedicated to "The Year of rural development and improvement")	December	SANIIRI
2.1	Soil fertility and ways for its improvement (Manual for farmers)	December	«IWRM-Fergana» Project
2.1	Whole-year use of irrigated lands (Manual for farmers)	December	«IWRM-Fergana» Project
2.1	Measures and recommendations on improvement of irrigation service fees gathering	December	«IWRM-Fergana» Project
2.1	Manual on fixing the tariff of services by water management organizations for water users	December	«IWRM-Fergana» Project
2.1	Water Management on the Irrigation Systems	December	«IWRM-Fergana» Project
2.1	Monitoring, analysis and resolution of conflicts and disputes on irrigation systems	December	«IWRM-Fergana» Project
2.1	Manual on fixing the tariff for services by water users associations	December	«IWRM-Fergana» Project
2.1.	Report on results of statistical analysis of the portal visitings	December	CAREWIB Project
2.3.	Newsletters «CAWater-Info News» (in Russian and in English including Mailing List)	January-December	CAREWIB Project
2.3.	Press releases of ICWC (in Russian and in English, Mailing List)	January-	SIC ICWC

Activity	Name	Date	Publisher
		December	
2.3.	INBO bulletins (in Russian, Mailing List)	January-December	CAREWIB Project

#### Annex 4. List of the CAWater-Info portal links

URL	Website/webpage
<a href="http://www.yale.edu/emcwa/Amu-Darya/amudarya_watershed2.htm">www.yale.edu/emcwa/Amu-Darya/amudarya_watershed2.htm</a>	EMCWA/Amu-Darya
<a href="http://waterwiki.net/index.php/CAREWIB">waterwiki.net/index.php/CAREWIB</a>	CAREWIB - WaterWiki
<a href="http://waterwiki.net/index.php/Enhancing_regional_exchange_of_water_resource_information_(CA_REWIB_phase_II)">http://waterwiki.net/index.php/Enhancing_regional_exchange_of_water_resource_information_(CA_REWIB_phase_II)</a>	Enhancing regional exchange of water resource information (CAREWIB phase II) - WaterWiki
<a href="http://waterwiki.net/index.php/CA_Water_Info">http://waterwiki.net/index.php/CA_Water_Info</a>	CAWater-Info - WaterWiki
<a href="http://www.brookings.edu/opinions/2008/0812_central_asia_linn.aspx">www.brookings.edu/opinions/2008/0812_central_asia_linn.aspx</a>	The Compound Water-Energy-Food Crisis Risks in Central Asia - Brookings Institution
<a href="http://www.carec.kz/english/index.html">www.carec.kz/english/index.html</a>	CAREC
<a href="http://www.ecolex.org/ecolex/ledge/view/RecordDetails;jsessionid=4072F98904507CEE706650C46A617508?id=LEX-FAOC081586&amp;index=documents">www.ecolex.org/ecolex/ledge/view/RecordDetails;jsessionid=4072F98904507CEE706650C46A617508?id=LEX-FAOC081586&amp;index=documents</a>	FAO EcoLex: Legislation
<a href="http://www.apwf-knowledgehubs.net/h9_iwrm_in_central_asia.php">www.apwf-knowledgehubs.net/h9_iwrm_in_central_asia.php</a>	APWF-Knowledge Hubs
<a href="http://enrin.grida.no">http://enrin.grida.no</a>	GRID-Arendal: Central & Eastern Europe, Caucasus, and Central Asia Environmental Information Programme
<a href="http://www.swisscoop.kg/index.php?navID=22498">www.swisscoop.kg/index.php?navID=22498</a>	SDC in Central Asia - Water Information Base
<a href="http://www.unece.org/env/water/links/link.htm">www.unece.org/env/water/links/link.htm</a>	United Nations Economic Commission for Europe Official Web Site
<a href="http://www.nyulawglobal.org/globalex/Turkmenistan1.htm">www.nyulawglobal.org/globalex/Turkmenistan1.htm</a>	GlobaLex - UPDATE: A Research Guide to the Turkmenistan Legal System
<a href="http://www.gateway.uz/index.php?subtopic=0&amp;lng=1&amp;topic=4">www.gateway.uz/index.php?subtopic=0&amp;lng=1&amp;topic=4</a>	Uzbekistan Development Gateway
<a href="http://www.envsec.org/pub/ENVSEC%202004%20Progress%20report.doc">www.envsec.org/pub/ENVSEC%202004%20Progress%20report.doc</a>	ENVSEC
<a href="http://www.untj.org/?c=7&amp;id=155">www.untj.org/?c=7&amp;id=155</a>	UN Tajikistan Information Platform
<a href="http://iea.uoregon.edu/page.php?query=one_indicator">http://iea.uoregon.edu/page.php?query=one_indicator</a>	International Environmental Agreements (IEA) Database Project
<a href="http://old.cagateway.org/index.php?lng=1&amp;topic=6&amp;subtopic=22">http://old.cagateway.org/index.php?lng=1&amp;topic=6&amp;subtopic=22</a>	CA Gateway
<a href="http://www.aralsjon.nu/en/links.html">www.aralsjon.nu/en/links.html</a>	Swedish Aral Sea Society
<a href="http://www.uzngo.info/">www.uzngo.info/</a>	Civil Society in Uzbekistan
<a href="http://ecologysite.net/">ecologysite.net/</a>	Catalogue of sites on ecology
<a href="http://www.g-o.de/dossier-detail-333-3.html">www.g-o.de/dossier-detail-333-3.html</a>	scinexx   Zum Weiterlesen: Links und Literatur
<a href="http://www.caresd.net/water/">www.caresd.net/water/</a>	The integrated water resources management - basis for prevention of conflicts in the region: e-Forum
<a href="http://worldenergy.ru/doc_33.html">http://worldenergy.ru/doc_33.html</a>	"World Energy" Magazine
<a href="http://www.waterinfo.ru/links.php">www.waterinfo.ru/links.php</a>	FSUE Centre of the Russian register of hydraulic engineering structures and of the state water cadastre
<a href="http://www.talaschu.org/links.php">www.talaschu.org/links.php</a>	Commission of the Republics of Kazakhstan and Kyrgyzstan on use of water management structures of interstate usage on the Chu and Talas rivers
<a href="http://www.evrazes.com/ru/main/linklistpage/1/">www.evrazes.com/ru/main/linklistpage/1/</a>	EurAsES: links
<a href="http://www.gwpcacena.net/en/links.htm">www.gwpcacena.net/en/links.htm</a>	GWP CACENA
<a href="http://www.aboutus.org/CaWater-Info.net">www.aboutus.org/CaWater-Info.net</a>	CaWater-Info.net - AboutUs Wiki Page
<a href="http://imt.udman.ru/ep/index.php?page=links">http://imt.udman.ru/ep/index.php?page=links</a>	Students' Ecoportal
<a href="http://www.camp.tj/Links.html">www.camp.tj/Links.html</a>	CAMP Kuhiston
<a href="http://www.analitika.org">www.analitika.org</a>	Analitika.org
<a href="http://www.acck.narod.ru/law_rus.html">www.acck.narod.ru/law_rus.html</a>	Association of the Crisis Centres of Kyrgyzstan
<a href="http://www.neww.org/en/news/news/1,4315,1.html">www.neww.org/en/news/news/1,4315,1.html</a>	News - UNDP Courses on Gender in Uzbekistan

URL	Website/webpage
<a href="http://www.unescap.org/oes/SPECA/about/documents/English/ESCAP_activities_SPECA.pdf">www.unescap.org/oes/SPECA/about/documents/English/ESCAP_activities_SPECA.pdf</a>	ESCAP Activities in the SPECA Region
<a href="http://www.iwmi.cgiar.org/Publications/IWMI_Research_Reports/PDF/pub105/RR105.pdf">www.iwmi.cgiar.org/Publications/IWMI_Research_Reports/PDF/pub105/RR105.pdf</a>	IWMI Publications
<a href="http://www.gender-az.org/index.shtml?id_doc=5837">www.gender-az.org/index.shtml?id_doc=5837</a>	Azerbaijan Gender Information Center
<a href="http://www.gwptoolbox.org/index.php?option=com_content&amp;view=article&amp;id=5:organizations&amp;catid=1:structure&amp;Itemid=49">http://www.gwptoolbox.org/index.php?option=com_content&amp;view=article&amp;id=5:organizations&amp;catid=1:structure&amp;Itemid=49</a>	GWP ToolBox
<a href="http://www.watermonitoringalliance.net/index.php?id=308">http://www.watermonitoringalliance.net/index.php?id=308</a>	Water Monitoring Alliance
<a href="http://centralasia.iwmi.org/news.html">http://centralasia.iwmi.org/news.html</a>	IWMI-Central Asia
<a href="http://unic.un.org/imu/recentActivities/category/Tashkent.aspx">http://unic.un.org/imu/recentActivities/category/Tashkent.aspx</a>	UN Information Centres - Tashkent
<a href="http://sreda.uz/index.php?do=static&amp;page=partners">http://sreda.uz/index.php?do=static&amp;page=partners</a>	Sreda.Uz
<a href="http://www.tajikwater.net/">http://www.tajikwater.net/</a>	TajikWater.net (water resources information for Tajikistan)



## Annex 5. Statistics on the portal visits in 2009

### General statistics on the CAWater-Info domain visits

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2009	15486	21784	87931	269350	3.97 GB
Feb 2009	16813	23698	91140	306028	4.23 GB
Mar 2009	19585	27150	110551	363953	5.26 GB
Apr 2009	18639	26176	88184	349885	4.89 GB
May 2009	18330	25663	90777	321940	4.87 GB
Jun 2009	14812	21746	116029	307393	5.87 GB
Jul 2009	13412	20505	107573	298676	5.80 GB
Aug 2009	6894	10722	42281	134645	2.00 GB
Sep 2009	17527	24829	125725	327864	7.38 GB
Oct 2009	23417	32757	102226	388285	7.12 GB
Nov 2009	21056	30266	118780	385069	9.23 GB
Dec 2009	20924	30561	114601	408665	14.28 GB
<b>Total</b>	<b>206895</b>	<b>295857</b>	<b>1195798</b>	<b>3861753</b>	<b>74.90 GB</b>

### General statistics on the ICWC-Aral domain visits

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2009	2986	4439	8885	43239	347.78 MB
Feb 2009	3168	4483	8574	45016	334.18 MB
Mar 2009	3674	4836	8270	48190	389.07 MB
Apr 2009	3474	4521	9063	49882	428.06 MB
May 2009	3301	4308	8602	44941	414.61 MB
Jun 2009	2766	3893	8247	38978	369.53 MB
Jul 2009	2473	3799	8950	38418	323.89 MB
Aug 2009	2474	3764	9648	37856	455.80 MB
Sep 2009	2758	3823	10153	38099	404.88 MB
Oct 2009	3776	5221	11922	54584	497.08 MB
Nov 2009	3854	5547	11435	52525	504.67 MB
Dec 2009	3779	5131	10756	50043	573.99 MB
<b>Total</b>	<b>38483</b>	<b>53765</b>	<b>114505</b>	<b>541771</b>	<b>4.93 GB</b>