

## REGIONAL CENTRE OF HYDROLOGY IN CENTRAL ASIA



INTERNATIONAL FUND  
FOR SAVING THE ARAL SEA

## Water facilities in the basin of Syrdarya river



- Список гидропостов:
- |                             |                          |                                     |
|-----------------------------|--------------------------|-------------------------------------|
| 1. Выше устья р. Келес      | 3. уч. Коктюбе           | 6. пгт Тасбугет                     |
| 2. Н. б. Шардаринское вдхр. | 4. ж-д ст. Тюмень - Арык | 7. ж-д ст. Караозек 7а пр. Караозек |
|                             | 5. рзд Кергельмес        | 8. г. Казалинск                     |

## REGIONAL CENTRE OF HYDROLOGY IN CENTRAL ASIA

Almaty 2012



## Executive Committee of the International Fund for saving the Aral sea

The Regional Center of Hydrology (RCH) was founded on August 23, 2002, upon the initiative of the National Hydromet Services (NHMSs) in Central Asia (CA). The RCH is a part of the IFAS. Since 2010, the RCH is a legal entity in the Republic of Kazakhstan, having the status of an international organization. The RCH comprises of:

- The Coordinating Council (Heads of the NHMSs)
- The Executive Director
- Branches in NHMSs
- Working Groups in different fields.

### Goals and objectives of the RCH

- Implementation of solutions on the Aral Sea made by the IFAS Board;
- Improvement of the hydrological forecasting and data exchange between the NHMSs and the strengthening of regional cooperation;
- Implementation of measures to create a network for hydro-meteorological monitoring (stations, posts);
- Increased collaboration with international organizations, donor countries and other funds.

## ACTIVITIES OF THE RCH

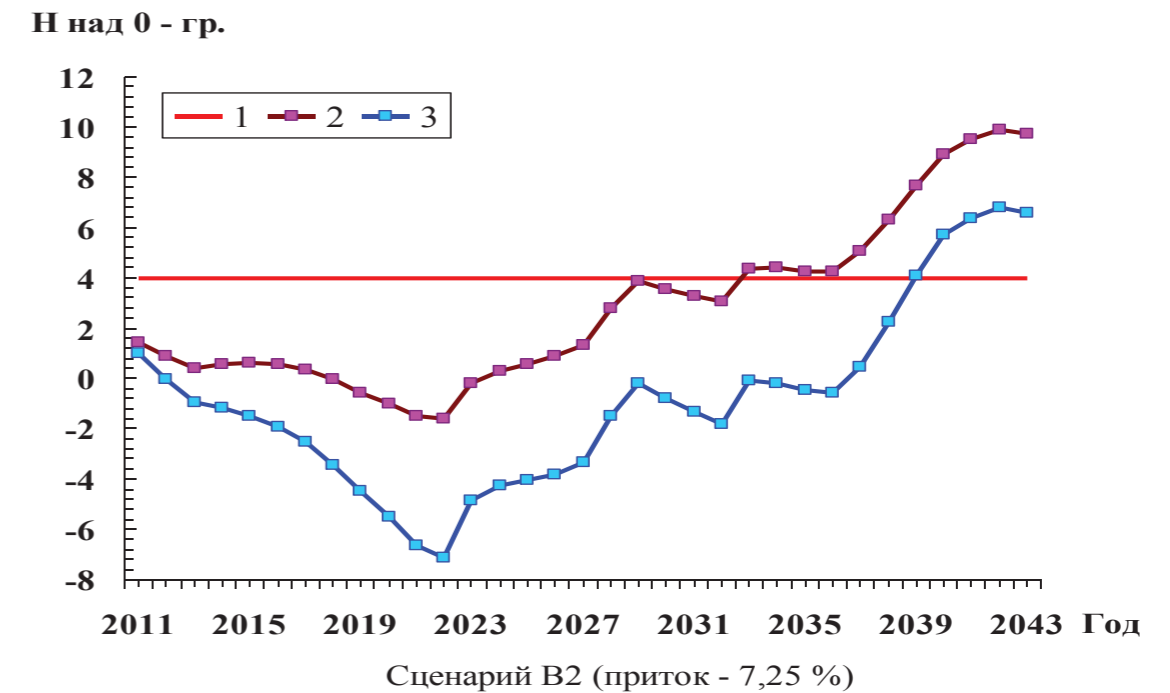
- The Coordination Council of the RCH coordinated the project “Swiss Support to the NHMSs of the Aral Sea basin”.
- The RCH made an agreement between the NHMSs on exchange information obtained with the use of equipment of USAID and the Swiss Aral Sea Mission.
- The RCH arranged an expedition to the water runoff area (survey of glaciers, lakes in the Pamirs).
- The RCH prepared a regional report on “Global climate change and natural disasters related to water in the Aral Sea basin”.
- The RCH prepared a regional report on “Impact of climate change on water resources in Central Asia”.
- Training under the GFZ CAWa project .

## ACTIVITIES OF THE RCH

- As part of the preparatory process for the 6th World Water Forum at the International Conference “Towards the 6th World Water Forum - Cooperative Actions for Water Security”, held in May 12-13, 2011, in Tashkent, some experts of the CA NHMSs (RCH) reported on degradation of glaciers, forecasts of level of the Northern Aral Sea, the impact of climate change on water resources in the Aral Sea basin.
- FFEM-EECCA Project. Description of the sources of data / metadata
- Exchange information of the NHMSs
- Evaluation of the portal “CAWater-info.net” and identification of gaps
- The GIZ Project “Adaption to climate changes through sustainable resource management and cross-border cooperation for disasters prevention in Central Asia”
- The World Bank project- “Modernization of NHMSs” /the CAHMP project.

## IMPACT OF CLIMATE CHANGES ON WATER RESOURCES IN CENTRAL ASIA

### Probable changes in the level of the Small Aral Sea under anthropogenic climate change



**1** - уровень 42 м абс; **2** - уровень при  $P=0$ ; **3** - уровень при  $P=1,2 \text{ км}^3$ ,  
ноль графика - 38 м абс;  $P$  – сброс воды в Большой Арал

## ADAPTATION MEASURES IN TERMS OF FUTURE CHANGES OF WATER RESOURCES



### AT REGIONAL LEVEL:

Diversion of water run-off within the region and beyond; activities related to water saving and environmental protection, the creation of a simulation system for water resource management



### AT NATIONAL LEVEL:

Implementation of water saving technologies, design and construction of water reservoirs on rivers mainly for season management, as well as anti-flood and anti-mud flow hydraulic facilities.



Water demand management, based on the fair water distribution. Reaching of compromises between interests of representatives at the upper and lower stream lines, the needs of water users and ecosystems is a vital problem for the states located in the Aral basin.

Increase of average annual air temperature (over the territory of each country):

- 0,26 °C/ 10 years in Kazakhstan (1936- 2005)
- 0,08 °C/10 years in Kyrgyzstan (1883-2005)
- 0,29 °C/10 years in Uzbekistan (1950- 2005)
- 0,10 °C/10 years in Tajikistan (1940- 2005)
- 0,18 °C/10 years in Turkmenistan (1961- 1995).

## Evaluation of the Portal ([www.CAWater-info.net](http://www.CAWater-info.net)) and identification of gaps

According to the Order of the IFAS № 20 \ P from may 25, 2011, a Working Group of 19 people, including representatives of five countries and 5 sectors, was created.

This working Group developed two documents:

<http://www.cawater-info.net/concept//>

- Report on the results of analysis of the survey for improvement the information service of the water sector in Central Asia.
- The concept of information exchange and mechanisms of cooperation/ interaction of its members in Central Asia.



## Activities of the RCH according the World Bank program “Modernization of the CA NHMSs/CAHMP project”



In accordance with the decision of the Coordination Council of the RCH, dated December 3, 2010, the Project Management Unit (PMU) shall be located in Almaty, Kazakhstan for the period of CAHMP project implementation.

THE NHMS of Kazakhstan as a national contribution to the project, provided office facilities for the PMU in the Center of Hydrometeorological Monitoring of Almaty/“KazHydromet.”

The Central Asia Hydrometeorology Modernization Project (CAHMP) was developed by the World Bank jointly with the RCH and the CA NHMSs.

The main objective of the **CAHMP** is to improve the accuracy and timeliness of information presented by the Hydromet Services in Central Asia, with particular focus on Kyrgyz Republic and Republic of Tajikistan.

**Project period: September 1, 2011 - August 30, 2016.**

## FFEM -EECA PROJECT

### Analysis of the current situation in Central Asia - Metadata Catalogue

#### Legislative and institutional context of data management:

- Online database of project participants

#### Analysis of the data sources:

- Compilation of a list of data that exist in paper or digital form
- Online tool «Catalog of data sources»

#### Data flowchart:

- Identification of key regular data flows between institutions according to search information

The survey and analysis of the needs of partners in data, services related to data management, tools and equipment, trainings.

Country code	Name of Organisation	Acronym	Tel.	Website	U_organz	Code	Activity
UA	Ministry of Agriculture and Food of Ukraine	MAF	00 38044247211	http://www.maf.gov.ua	2000		
UA	Ministry of Emergencies of Ukraine	MEU	(044) 234-93-88	http://mpe.mvu.gov.ua	2000		
UA	Ministry of Energy and Coal Industry of Ukraine	MECI	(044) 228-22-05	www.mei.gov.ua	2000		
UA	Ministry of Environment and Natural Resources of Ukraine	MEMR	(044) 492-0382	http://www.poc.org.ukraine	2000		
UA	Ministry of Health of Ukraine	MH	(044) 228-22-05	www.moz.gov.ua	2000		
UA	OSCE Organization for Security and Co-operation in Europe	OSCE	+38 44 492 0382	http://www.osce.org/ukraine	2000		
UA	State Agency of Ukraine Fisheries	SAUF			2000		
UA	State Agency of Ukraine Water Resources	SAUWR	(044) 228-26-07	http://www.sauwr.gov.ua/	2000		
UA	State Environmental Inspectorate of Ukraine	SEI	(0512) 47-38-05, 52-38-42	http://www.sei.mn.com.ua/	2000		

**FFEM-EECA PROJECT QUESTIONNAIRE ON NEEDS RELATED TO WATER DATA ADMINISTRATION**

Need Survey v01  
Version: draft  
Date: July 2011

**FFEM PROJECT**  
Capacity building in data administration for assessing transboundary water resources in the EECA countries

Questionnaire for the analysis of needs related to data administration expressed by the organisations involved in water management

**I. IDENTIFICATION OF THE ORGANISATION**

COUNTRY : \_\_\_\_\_

Contact person in the organisation

NAME : \_\_\_\_\_ FIRST NAME : \_\_\_\_\_

E-mail : \_\_\_\_\_

Position : \_\_\_\_\_

## GIZ PROJECT

The regional project “Adaptation to climate changes through sustainable resource management and cross-border cooperation for disasters prevention in Central Asia” funded by the Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the German Society for International Cooperation (GIZ). The project grew out of the preceding project “The Transboundary Disaster Prevention in Central Asia”, funded by the Ministry of Foreign Affairs of Germany (period of realization: 2008-2010).

This project makes an important contribution to the further cooperation between Germany and the Central Asia countries. The project is aimed at professional and technical dialogue on the risk analysis, monitoring and prediction of geohazards. An integrated project approach (sustainable management of natural resources, climate change, analysis of geohazards, monitoring, forecasting) can provide important ideas in this direction, which can be implemented at the end of the project (2011-2013). The RHC is a partner of the project. In November 2011, in Almaty, the RCH, organized a seminar in which representatives of the Central Asian countries for emergency situations, agriculture, water resources and the environment, the staff of the National Hydrometeorological Services and academic institutions discussed possible actions to be implemented in the framework of this project.

Training courses and study tours within the GIZ project contribute to extensive information exchange with Germany.




During the Study Tour, they introduced the modern system of early warning and rapid, standardized risk assessment.




Visiting the German Weather Service





**Aral Sea Basin**  
Bulletin related to water management  
Coordinated by EC-IFAS  
with the support of the FFEM project, UNRCCA and UNDP



**ГИДРОЛОГИЧЕСКИЙ БЮЛЛЕТЕНЬ**

ПО РЕКЕ СЫРДАРЬЯ

Бюллетень № 1, октябрь 2011 г.  
(проект)

**HYDROLOGICAL BULLETIN**

ON THE SYRDARYA RIVER  
(draft version)

Bulletin n°1 - October 2011<sup>1</sup>

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**E-version can be downloaded at:** <http://www.ec-ifas.org/main/193-ec-ifas-initiated-production-of-regional-bulletin-on-early-warning-of-potential-transboundary-water-related-crisis-situations-in-central-asia>.





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