# UNITED NATIONS ORGANIZATION ECONOMIC COMMISSION FOR EUROPE

INTERSTATE COORDINATION WATER COMMISSION OF CENTRAL ASIA SCIENTIFIC-INFORMATION CENTER

# **ACTIVITY REPORT**

on the project "Support to the network of Russian speaking water management organizations and organization of a water information conference in Bishkek, autumn 2014"



Beglov I.F., Ph.D. - report preparation

Usmanova O.K. - translation

Kalinin M. – Conference photos

This material is published with the support of UNECE.

The presentation of material in this publication is the sole responsibility of experts and does not imply the expression of any opinion whatsoever on the part of UNECE

## **Table of contents**

1. Introdu	uction	4
2. Projec	et activity during the reporting period	5
2.1. Oı	rganization of the Network Conference	5
2.2. M	Iaintenance of the Network web-site	24
2.3. Pr	reparation and publication of the collection of scientific papers	25
Pro "W And List org	nex 1 ogram of the Conference of EECCA water-management organizations vater Conservation and Effectiveness of Water Use"  nex 2 t of participants of the International Conference of EECCA water-management ganizations	
Me	nex 3 embers of the Network of (basin) water-management organizations from stern Europe, Caucasus, and Central Asia	

#### 1. Introduction

The main project objective is promoting contacts and extending information exchange among water professionals in the countries of Eastern Europe, Caucasus, and Central Asia through the enlargement of membership of the established and maintained Network of Water Management Organizations of EECCA countries and the enhancement of the exchange of information and accumulated experience.

SIC ICWC has achieved the following results for the reporting period:

- 1. Prepared and organized the Conference of the water management organizations in EECCA countries titled "Water Conservation and Effectiveness of Water Use" in Minsk on 21<sup>st</sup> of May 2015 and the Roundtable on improvement of NWO EECCA activity on 22<sup>nd</sup> of May 2015
- 2. Published collection of scientific papers of the NWO EECCA "Water Conservation as a Way for Survival under Growing Water Crisis"
- 3. Published NWO EECCA Conference Proceedings "Water Conservation and Effectiveness of Water Use" (21-22 May, Minsk, Belarus)
- 4. Regularly updated and maintained web-site of the Network
- 5. Contributed to the development of the knowledge base on the CAWater-Info portal as one of the main components of NWO EECCA activity

## 2. Project activity during the reporting period

During the reporting period, the following activities were accomplished:

### 2.1. Organization of the Network Conference

Preparation to the conference of EECCA water management organizations "Water Conservation and Effectiveness of Water Use" was underway since September till November 2014:

- a special work team was established at the head of Academician P.A.Polad-zade (OAO "Vodstroy") and composed of: Prof. V.A.Dukhovny (SIC ICWC), V.I.Sokolov (GWP CACENA), F.F.Beglov (SIC ICWC, executive secretary), Mamataliev N.P. (Kyrgyz branch of SIC ICWC)
- invitations to concerned institutions were disseminated
- conference dates and venue Bishkeke, 4-5 December 2014 were agreed
- hotel was reserved for participants
- agenda of the conference was drawn up, approved and disseminated

However, because of certain circumstances, the conference was postponed.

By the courtesy of the leadership of "Belgiprovodkhoz" Institute, the Conference was finally organized in Minsk (Belarus) on 21<sup>st</sup> of May 2015.

The key topics of the Conference discussion were:

- Report on NWO EECCA activity in 2014
- Growing water scarcity presenting challenges for water security: natural ones climate change; and, anthropogenic ones – rising demands, future development, including of hydropower
- Issues related to application of high-tech in water uses (automation, water conservation, energy conservation, etc.)
- Water accounting and quality of water delivery services

The Conference was organized by OAO "Vodstroy", Scientific-Information Center of ICWC, and Belarusian Research Institute for Land Reclamation.

President of NWO EECCA Academician P.A.Polad-Zade opened the Conference.



- B. Libert, Regional Advisor for Environment, UNECE
- S.B.Dunayevskaya, Director, Institute "Belgiprovodkhoz"
- E.Boinet, representative of the International Network of Basin Organizations
- M.K.Kerimov, Head of the Federal Water Resources Agency, Ministry of Natural Resources and Ecology, Russian Federation.







Then, the reports were delivered by:

Prof. V.A.Dukhovny - NWO EECCA activity in 2013-2014 and future tasks

B.Libert - Water-food-energy nexus approach for better water use

N.A. Sukhoy – Specifics of Land Reclamation Program implementation in the Russian Federation

V.I.Sokolov - Water conservation and efficient water use – the base for future survival

Prof. N.B. Prokhorova - Water conservation as a factor of socio-economic development

Acad. B.M.Kizyaev - Water resources and their role for development of the Russia's agroindustry under climate change

A.D.Ryabtsev - Growing water scarcity as a water security challenge and the steps towards water cooperation

A.Sh.Mamedov - Rational methods of water and energy use in highlands

E.Boinet - The action program of the International Network of Basin Organizations and the assessment of the current progress in the implementation of the Water Framework Directive

A.A.Bulinya – Irrigation and drainage in Belarus and development outlook

N.K.Vakhonin - Status of land reclamation system in Belarus and innovative ways of its development

A.K.Fazilov - On-going improvement measures in the water sector of Uzbekistan

Prof. V.A.Stashuk - Characteristics of water use in Ukraine given the agrarian sector reformation and climate change

N.N.Balgabaev - Regional program for irrigation reconstruction and irrigated land reclamation in Kazakhstan with application of resource-conservation technologies: Zhambyl province casestudy

V.N.Korneyev - Water resources management in the Neman River Basin in light of adaptation to climate change

Prof. N.Nosirov - Water conservation technologies in irrigated agriculture in Tajikistan

Prof. Ye.M.Kalibekova - Current status of water resources and related challenges in Kazakhstan

L.Kiktenko - Potential of down-top approach for water conservation - CAREC experience in Central Asia

M.Yu.Kalinin - Results of the Beralus-Moldova Project "Promotion of public participation in international cooperation on integrated transboundary river basin management in western countries of EECCA"

K.A.Anzelm - Application of water-saving irrigation technologies in Kazakhstan: South-Kazakhstan province case-study

M.Ya.Makhramov - Water accounting and control along the Amudarya River

A.R. Uktamov - Experience of application of automated water accounting at BWO Syrdarya



The Network President Academician P.A.Polad-Zade in his opening speech highlighted that our time is characterized by strong pressure on the water sector exerted by climate change and the global tendencies and problems. Recently, China has been developing intensively its hydropower projects and has transferred river flow south to north in the area adjacent to the EECCA region. As an example of how transboundary problems are solved, one can site the signature of a document on cooperation between Palestine, Israel, and Jordan for river sharing in the Middle East, taking into account huge reserves of seawater desalination and construction of a canal Red Sea – Dead Sea.

Today, in 50 years since the Program for Land Reclamation in USSR, which resulted in expansion of the irrigated area from 9.5 Mha in 1965 to 21 Mha in 1985, the current status of land use and water management in the Russian Federation causes serious concerns. It seems that, at present, the value of water is largely underestimated in Russia. However, the experience and knowledge accumulated in the country in the previous periods of irrigation and drainage development urge to radical revision of the focus in our water-related practices to serve as the basis of food and energy security and as a driver of progress and development.

Problems in Russia's water sector were addressed in a number of other reports as well. In particular, N.A.Sukhoy analyzed significant shortcomings in the Russian water sector, such as lack of flood control that resulted in catastrophic floods in the Amur River and poor use of reclaimed land. Russia purchases food for \$35 billion, while irrigators and farmers in Kuban demonstrate huge capacities of the Russian irrigated agriculture. Kuban produces as much as 1 Mt of rice annually. Thus, similar development of irrigated agriculture in other areas of the country may reject a need for food import. Unlike Central Asia, Russia does not experience water scarcity. The current water management system is a structural sector for national economy.

However, today it is developed as a central resource-supplying sector. The role of water resources in the change of production patterns and population in Russia urges that the system, large scale multidisciplinary study be undertaken without delay so that to avoid transformation of the projected water crisis into the real-time one.



Mrs. Prokhorova, Director of the RosNIIVH Institute underlined that market conditions do not ensure sustainability and opportunities for survival in the water sector. There are no Federal laws on water use; small hydro is poorly implemented, whereas water resources in Volga, Don, Kuban, and Ural are exhausted virtually. There is growing number of unaccounted water diversions. The current monitoring system, which collects data from 11 departments, should be transformed into a system of forecasting and accounting. Water security practically is not legally supported in Russia.



Prof. V.A. Dukhovny, Executive Secretary of NWO EECCA, in his report highlighted the following contemporary water challenges in EECCA countries:

- Water should be the basis of global security.
- There is growing water scarcity in arid zones and increasing water availability in humid zones.
- Uneven spatial distribution of water.
- Poor water controllability.
- Development of hydro-egoism and difficulties with hydro-solidarity.
- Transboundary problems.
- Anthropogenic-technological risks.
- Need for harmonization of water, soil, climate and nature.

In order to overcome these challenges he proposed to:

- Overcome business as usual in development.
- Widen involvement of basin organizations they see the situation better and more realistically as the lower chain.
- Enhance information exchange and establish an open knowledge bank.
- Focus on training, transfer of knowledge and development of a clear future vision (strategy).
- Restore previous capacities of waterworks facilities and irrigated areas that degraded over 20 years.



V.I.Sokolov delivered the keynote speech on water conservation issues.

In the recent decade, humanity grew aware of the global problems related to intensive water use. Today, it is a known fact that freshwater can be renewed in the global water cycle but their usable share is limited, i.e. with population growth and economic development, humanity has faced growing shortage of freshwater resources. This global phenomenon is aggravated by climate change. Increased scarcity of water for all needs of the society and the nature is observed all over the world, while this process is especially intensive in some regions.

Water demands exceed (especially during dry periods) an amount of technically available water resources in the rivers in Central Asia as a whole. With growing population and socio-economic needs, this creates problems in ensuring water security and, particularly, its food and environmental elements.



Irrigated agriculture in the Central Asian countries undergoes changes related with restructuring of agriculture and water sector.

- The number of individual water users increased enormously;
- Former on-farm irrigation network automatically transformed into inter-farm one (at WUA level);
- Today there are no effective tools for harmonization of different water supply levels in terms of the reduction of water losses at the interface of hierarchical levels (because of lack of coordination of water demand and water supply and weak information mechanism for coordination);
- Poor monitoring of water supply and water disposal that led to low reliability of water accounting. This also causes low efficiency of water pricing;

- Cropping patterns have changed (especially winter wheat areas were increased significantly), with resulted effects for irrigation regime;
- The changes in irrigation regime affected operation of irrigation systems (water is delivered continuously all year round).

The water conservation measures can be divided into two categories:

- water conservation during delivery of water to users
- water conservation during use of water.

A wide circle of issues need to be addressed at the level of water use:

- Need for appropriate system of planning of water distribution and use at the WUA-farmer level;
- Updating of water-duty (hydromodule) zoning and crop water requirement rates;
- Optimization of soil-reclamation regimes against current conditions of drainage and irrigation technique;
- Development of agronomic practices that improve soil fertility;
- Adoption of perfect irrigation methods;
- More financial incentives for water users in water saving transfer from hectare-based water charges to charges determined on the basis of amounts of delivered water.

Here, it is necessary to remember that water conservation is not only a technological process but also an institutional one, which is closely linked with implementation of IWRM.

The Deputy Head of Central Water Administration of Uzbekistan A.Fazilov noted that Uzbekistan is leading in implementation of IWRM. IWRM was adopted in more than 130,000 ha in Fergana province and in additional 450,000 ha in the Zarafshan basin and other provinces in the Republic.

Other directions for improvement of irrigation and drainage system in Uzbekistan are:

- Adoption of up-to-date water conservation technologies
- Implementation of automated water distribution control and monitoring systems
- Improvement of conditions of hydraulic facilities
- Improvement of irrigated land conditions
- Agricultural diversification, etc.



Over the last decade 1,500 km of canals, 400 large hydraulic structures, and 200 pumping stations were constructed or reconstructed in the republic. Every year 5,000 km of main canals, 100,000 km of irrigation canals and ditches, and 10,000 hydraulic structures and gauging stations are cleaned. The total area under drip irrigation is more than 12,000 ha. Flexible hose irrigation and film irrigation are applied in 14,000 ha of irrigated land.

During 2013-2017 land users and farms will receive long-term loans on easy terms, at government's expense, for:

- implementation of drip irrigation system on 25,000 ha
- flexible hose irrigation on 34,000 ha
- film irrigation on 45,600 ha.

These farms will be free from land and other taxes for 5 years.

In opinion of Kazakh experts (A.D.Ryabtsev, D.Balgabaev, Prof. Kallibekova), **Kazakhstan** is the least provided with water per capita. The average long-term runoff of all rivers in Kazakhstan was estimated at 100.5 km<sup>3</sup> in the recent past, whereas now it is estimated at only 85 km<sup>3</sup> by some experts.

Aggravation of water availability issues in Kazakhstan is explained by the following reasons:

- more than 45 % of surface runoff is formed outside the republic and its diversion by riparian countries (China, Uzbekistan, Kyrgyzstan, Russia) increases;
- effect of global and regional climate change on river runoff;
- irregular distribution of water throughout the republic;
- high degree of water pollution.

In order to achieve water security in Kazakhstan and solve geopolitical, interstate, socioeconomic tasks and in context of growing water scarcity, the country plans to re-distribute river runoff, particularly, transfer flow from the Yertis River via the Astana canal so that it would become the second independent source of water for the capital city. A.D.Ryabtsev highlighted an importance of the state water management program, which set main tasks for guaranteed water supply to population, environment, and economic sectors through water conservation, more efficient water management and preservation of aquatic ecosystems. This program will require significant investments up to \$18 billion for 2015-2020; however, redistribution of flows in water-scarce basins within the boundaries of Kazakhstan would help to avoid water scarcity, which is predicted to be 8.5 billion m<sup>3</sup>. The world practices in modern flow re-distribution demonstrate feasibility of such measures. Moreover, neighbors of Kazakhstan, first of all, China already implement such water transfers even along the Irtysh River, particularly through the Irtysh-Karamai and Irtysh-Urumchi canals.

Agriculture is the largest consumer in the republic. It uses 94% of the total water diversion, including 80% for regular irrigation, in the three southern basins.

Irrigated agriculture in three Kazakh provinces should be developed further only through water conservation technologies, primarily drip irrigation. By present, as K.A.Anzelm noted, the drip irrigation area has been extended to 34,000 ha. This is the set of economic, financial, legal, and institutional measures with extended soft financing that allows successful implementation of water-conservation technologies. In doing so, 80 % of water delivery services through modern technique is compensated by the public sector.



**Republic of Tajikistan** has diverse natural-economic zones starting from rainfed land to sub-arid zones, where 98% of irrigated land is under furrow irrigation. Taking into account soil-topography conditions in the republic, the following irrigation methods and technologies are proposed:

- improve quality of furrow irrigation for row crops, orchards and vineyards by cutting micro-furrows;
- portable and stationary tube network is recommended for distribution of water over irrigated fields under furrow irrigation;
- drip irrigation is recommended for high-profitable crops (cotton, citrus plants, fruits and vines) under acute shortage of irrigation water. In this context, Republican scientists suggested various options of low-pressure drip systems for both row crops and perennial

plants. The cost of construction and operation of such systems is 1.5-2 times lower than of traditional ones;

- irrigate fodder crops by impulse sprinkling;
- subsoil irrigation of vines;
- terraced irrigation of citrus plants.



Adoption of new advance irrigation technique and technologies helps to achieve high crop yields: 40-60 centner/ha of cotton; 50-60 centner/ha of cereals; up to 200-250 centner/ha of grapes; 1000 centner/ha of vegetables; 800-1,000 centner/ha of alfalfa. In doing so, productivity of labor increases 3-4 times, while irrigation water saving will be 1.5-3 times higher.

Representatives of **Belarusian** water sector, A.A.Bulinya, N.K.Vakhonin, and V.N.Korneyev underlined the role of water management and land reclamation in their country. Belarus produces almost 1000 kg of grain and 600 kg of potato per capita. Local factories manufacture all equipment for maintenance of national water infrastructure. In 2001, 4,000 tons of fish were produced in the republic, whereas now, through fish farm development, the total fish production amounts to 17,000 tons. The republic implements integrated projects for both national and transboundary water, particularly the Neman River Project, which covers Belarus, Lithuania and partially Russia.







Representative of Azerbaijan A.Sh.Mamedov stressed that given the growing water scarcity, development of off-stream reservoirs that have no a negative effect on richer channels and do not cause competitiveness between hydropower and other water users is of importance.



The Conference adopted the following resolution.

# Resolution of the NWO EECCA International Conference Water Conservation and Effectiveness of Water Use 21 May 2015, Minsk

The participants of the International Conference "Water Conservation and Effectiveness of Water Use" gathered in Minsk on 21<sup>st</sup> of May 2015 within the framework of the Network of Water-Management Organizations (NWO) from Eastern Europe, Caucasus and Central Asia (EECCA) and *discussed* the topical issues related to water use, namely in the three key directions:

- Growing water scarcity and water security challenges: natural climate change; anthropogenic growth of demand, future development, including hydropower;
- Application of high technologies in all areas of water regulation and use (automation, informatization, water conservation, energy saving, etc.);
- Problems related to water accounting and quality of water services;

The participants *have agreed* that the main causes of water tension are:

- growing water consumption as a consequence of population growth, economic development and climate change;
- poor controllability of water as a result of lower attention from the side of national government to water sector in some countries;
- weak policy coordination among water-related sectors, such as agriculture, energy, environment;
- lack of clear advanced planning of water use in many countries, taking into account intensification of destabilizing factors;
- water right is not distinctly affirmed at international, regional, national and basin levels, as well as at the level of water users or consumers and their associations. There are no clearly defined mechanisms for searching tradeoff decisions in case of conflicting interests of water users: agriculture, land reclamation, water transport, fishery, hydropower, etc.;
- at all water hierarchical levels, even if water service fees are applied, there is no real interests of stakeholders in the use of economically-based mechanism for water distribution and use.

The participants *believed it necessary* to enhance efforts to counteract the factors causing water tension through common orientation of water-management organizations and water users towards efficient water use, including stronger coordination among the countries and water-related sectors. This must be a principled line of actions of the world community under coordination of UN organizations and of the national governments, with particular focus on transboundary water cooperation that involves about 40% of the world's water resources.

Solutions on integrated water and land resources management should be based on reasonable water use by all users with the help of decision support system and up-to-date water conservation technologies, through reduction of unproductive water losses, re-use of wastewater in agriculture

and industry, intensification of production of traditional and drought-tolerant crops, and involvement of all stakeholders dealing with food security in solution of problems related to water insecurity.

Taking into account significantly uneven spatial distribution of water resources and aggravation of water scarcity in some of particularly arid zones, as well as global trends, the re-distribution of flow within and between basins is largely a means to overcome temporary and continuous water deficits.

While noting that maintenance of professional community, information exchange and dissemination of best practices through NWO EECCA is of high importance, the participants made mention of the Network work progress in 2013-2014, including:

- issue of Network's information collections and scientific publications (http://eeccawater.net/),
- extension of the knowledge base on CAWater-Info portal (http://www.cawater-info.net/bk/rubricator.htm) as part of a system of uniform tools for implementation of IWRM that are adapted to specific conditions of water management in river basins subjected to different degrees of water scarcity in arid and semi-arid zones of EECCA countries,
- participation of NWO EECCA members in international events, including in preparatory activities to the 7<sup>th</sup> World Water Forum and in the Forum itself in Korea on 12-17 April 2015.

At the same time, the participants stressed a need for activation of measures directed at wider involvement of basin organizations in NWO EECCA activity. The effectiveness of basin organizations can be improved strongly through public involvement.

The participants welcomed the UNECE proposal (Mr. B.Libert) to organize such first event as part of the Kazakhstan national program and requested a member of the Network's Board of Directors Mr. A.D.Ryabtsev to take the lead of this work together with UNECE.

Summarizing opinions gathered during such events will allow formulating a message to the country governments for further improvement of legal, institutional and technical frameworks of the water sector.

In context of the mentioned above, the participants *thought it necessary* to intensify activity of the Network by:

- 1. Submitting regularly messages on national events in area of water management and information on new publications, software, methodologies and training materials in order to raise awareness among water professionals and encourage water sector development in EECCA.
- 2. Strengthening Network's national centers, their equipping and involving in their activity more water-management, academic and non-governmental organizations in order to create a multistakeholder platform for improvement of national water sectors and overcoming of challenges.
- 3. Building a bridge among the Network's members and water and agriculture decision makers in EECCA countries to inform them about existing global trends in water development as

compared to the existing situation in the national water sectors of our countries so that to raise effectiveness of the Network activity.

- 4. Enhancing cooperation with national focal points of international networks and organizations, such as Global Water Partnership (GWP), International Commission on Irrigation and Drainage (ICID) and others.
- 5. Enhancing support of NWO EECCA from the side of the Permanent Technical Secretariat of the International Network of Basin Organizations (INBO) through:
  - involvement of members of both NWO EECCA and other regional networks of INBO in activities related to extension of the knowledge base;
  - raising of funds for twinning with European basins; exploring possibilities for adaptation of European water directives to conditions and needs of the EECCA region; adjustment of EU financial mechanism to conditions of the EECCA region.

The participants *proposed* to organize a Network conference in 2016 on the theme "Cultural and educational aspects of water management in EECCA countries" and address there the following issues:

- Water and culture;
- Water and civilization;
- Water and ethics:
- Water and education.

Finally, the participants *thanked* UNECE and GWP CACENA for support and assistance provided to the Network, including in organization of this Conference. The participants also thanked the Russian Government for the long standing support of NWO EECCA.

The participants also *appreciated very much* assistance rendered by the Institute of Land Reclamation at the Belarus National Academy of Sciences, the Institute "Belgiprovodkhoz", and the Department for Land Reclamation and Water Management at the Belarusian Ministry of Agriculture in preparation and organization of the Conference.



### Roundtable on improvement of NWO EECCA activity

The roundtable on improvement of NWO EECCA activity was held on the  $22^{nd}$  of May 2015 in the course of the Conference.

The below questions were raised for discussion:

- 1. What problems were solved or not solved as compared to initially addressed ones (at time of Network establishment)?
  - By country
  - By topic:
    - a) Water strategy
    - b) Water conservation
    - c) Implementation of IWRM
    - d) Development of governance system
    - e) Intensity of information exchange
    - f) Training
    - g) Improvement of legal framework
  - Report on SIC ICWC activity over the 3 last years
- 2. NWO EECCA poor involvement of basin organizations
  - How can they be encouraged?
  - Information on the knowledge base "Water in Central Asia" (SIC ICWC)
  - E-learning
- 3. What can our collective advantages be?
- 4. How can partnership advantages be developed?
- 5. More active transfer of information about activities of the Network members to the Secretariat for filling the web-site
- 6. Attraction of donors and private companies
- 7. Conferences with participant fees (paid)
- 8. Establishment of national points of NWO EECCA
- 9. Organization of national dialogues among water-management organizations, including basin ones, WUAs and other lower level entities (down-top approach).





#### 2.2. Maintenance of the Network web-site

The web-site (<u>www.eecca-water.net</u>) is maintained to support activity of the Network of Water Management Organizations in EECCA countries. The web-site sections were filled with information from the Network's members and from open Internet sources during the reporting period. The following sections were opened:

- News
- Events (information about workshops, conferences, work meetings)
- Articles
- Publications (information about published books, brochures, monographs, etc.)
- Periodicals (information about published journals and newspapers)
- Information products
- Water economy history
- Brief information about the Network's members (profiles)



Overview of the NWO EECCA web-site

#### 2.3. Preparation and publication of the collection of scientific papers

According to the Terms of Reference, the scientific papers were collected from the members of NWO EECCA and then their collection was composed and published under the title "Water Conservation as a Way for Survival under Growing Water Crisis".



Водосбережение как средство выживания человечества в условиях нарастания водного кризиса

Сборник научных трудов

Сить водовозайственных организаций стран Воличной Разоны Комуна и Онительной Ани Ташкент 2015

This publication included the following papers:

Water Conservation and Water Efficiency as the Basis for Future Survival V.A.Dukhovny

Water Use Trends in Russia under Growing Water and Water-Related Risks N.B.Prokhorova, Yu.B.Merzlikina, Ye.A.Pozdina

Regulation of Water Use in the Byelorussian Industrial Sector M.Yu.Kalinin, L.G.Konopel'ko, R.I.Oborotova

Republic of Moldova: Water Resources and their Conservation I.D.Trombitsky

Basin Check Irrigation Recirculation System for Rice Production V.V.Morozov, L.N.Granovskaya, O.V.Morozov, V.G.Kornberger, Ye.V.Dudtchenko, A.Ya.Polukhov

Modern Water-Saving Irrigation Methods in Kyrgyzstan P.M.Zhooshov, N.P.Mamataliev, T.P.Musaev, A.P.Musaeva

Some of the Problems related to Water Conservation in Uzbekistan and the Ways to Overcome Them

E.I.Chembarisov, T.Yu.Lesnik

Improving Irrigation Technique and Technologies for Water Conservation in the Lower Reaches of Amu Darya

O.Yu.Karimova, S.Kurbanbaev

The Mechanisms for Water Accounting and Monitoring at BWO Amu Darya A.M.Nazariy

Regarding Development of Advanced Water Measuring Facilities for Irrigation Systems in Uzbekistan

A.B.Nasrulin, U.R.Rasulov

Studying Water Use Scenarios under Conditions of Climate Change, Flow Regulation and Water Conservation Technology Application: Fergana Valley Case-Study A.G.Sorokin, T.V.Kadyrov, D.A.Sorokin

Application of High Frequency Irrigation under Water Scarce Conditions O.I.Eshchanov

Institutional Aspects related to Improved Irrigation Water Productivity N.N.Mirzaev

Economical Side of Water Conservation in Uzbekistan B.Gojenko, Sh.Muminov

Practices of Water-Saving Irrigation in the South Kazakhstan Province K.A.Anzelm, M.Yu.Esanbekov

Legal and Institutional Aspects of Information Support for Water Management Sector in Central Asia

I.F.Beglov, D.R.Ziganshina

RS-based Dynamics of the Aral Sea Waters D.A.Sorokin, Sh.Sh.Zoitov

Water-Saving Technology for Irrigation of Onion in the foothills of the South Kazakhstan M.S.Mirdadaev

Forecasts of Irrigated Agriculture Development in the Zhambyl Province and Water-Saving Irrigation Technologies and Tools P.A.Kalashnikov, B.M.Kurtebaev

Resource-Saving Technologies in Agriculture T.S.Gritchanaya

Water Rights Trading and Its Effectiveness in Australia Yu.Kh.Rysbekov, A.Yu.Rysbekov

More on Irrigation Water Tariffs in Turkey Yu.Kh.Rysbekov, A.Yu.Rysbekov

The reports presented during the Minsk Conference were generalized in the Collection of scientific papers under the title "Water Conservation and Effectiveness of Water Use: NWO EECCA Conference Proceedings (21-22 May, Minsk, Belarus)"



This collection included the following:

Conference report

Conference resolution

Opening speech of the NWO EECCA President P.A.Polad-Zade

Water conservation and efficient water use – the base for future survival V.I.Sokolov, M.G.Horst

Water conservation as a factor of socio-economic development N.B. Prokhorova

On-going improvements in the water sector of Uzbekistan A.K.Fazilov

Specifics of Land Reclamation Program implementation in the Russian Federation N.A. Sukhoy

Growing water scarcity as a water security challenge and the steps towards water cooperation

A.D.Ryabtsev

Rational methods of water and energy use in mountain rivers A.Sh.Mamedov, A.A.Bairamov

Application of water-saving irrigation technologies in Kazakhstan: South-Kazakhstan province case-study

K.A.Anzelm

Water conservation as the main principle of integrated water resources management Z.V.Kobuliev, N.K.Nosirov, Ya.E.Pulatov

Development of resource-conservation irrigation technologies in Kyrgyzstan P.M.Zhooshov, K.M.Kulov, A.Zh.Atakanov, N.P.Mamataliev

Water accounting and control along the Amudarya River M.Ya.Makhramov

Improving water use efficiencies in the Kazakh part of Prearalie T.I.Yespolov, A.G.Ray, Ye.M.Kalybekova

Watering pastures in Kazakhstan by using energy-efficient technologies of pumping driven by hydroenergy

T.I.Yespolov, A.A.Yakovlev, Ye.S.Sarkynov, A.Ye.Aldiyarova

Regarding GIS applications for conservation of water resources in the Amu Darya River F.Sh.Shaazizov, A.B.Nasrulin

Potential of down-top approach for water conservation – CAREC experience in Central Asia

L.Kiktenko

Formation of soil salt regime under drip irrigation in the Republic of Karakalpakstan Ye.Kurbanbayev, S.Ye. Kurbanbayev

Small basin councils in Central Asia: opportunities for public involvement in local water management T.Reznikova

# Agenda International Conference of NWO EECCA

#### "Water Conservation and Effectiveness of Water Use"

#### May 21, 2015, Minsk

Opening address by the President of NWO EECCA Academician P.A.Polad-Zade Welcome speeches

- B. Libert, Regional Advisor for Environment, UNECE
- S.I.Letsko, Director, Department of Land Reclamation and Water Resources, Ministry of Agriculture and Food, Republic of Belarus
- E.Boinet, representative of the International Network of Basin Organizations
- M.K.Kerimov, Head of the Federal Water Resources Agency, Ministry of Natural Resources and Ecology, Russian Federation

#### Reports

Prof. V.A.Dukhovny, Director SIC ICWC, Executive Secretary of NWO EECCA	NWO EECCA activity in 2013-2014 and future tasks
B.Libert, Regional Advisor for Environment, UNECE	Water-food-energy nexus approach for better water use
V.I.Sokolov, Regional Coordinator, GWP CACENA	Water conservation and efficient water use – the base for future survival
N.B. Prokhorova, Director, FGUP RosNIIVH	Water conservation as a factor of socio-economic development
B.M.Kizyaev, Director, VNIIGiM, Russia	Water resources and their role for development of the Russia's agro-industry under climate change
A.D.Ryabtsev, Director, Kazgiprovodkhoz, Kazakhstan	Growing water scarcity as a water security challenge and the steps towards water cooperation

A.Sh.Mamedov, Rational methods of mountain rivers' water and Merkuri-Inşaat MMC energy use Azerbaijan E.Boinet. The action program of the International Network of Basin Organizations and the assessment of the International Network of Basin current progress in the implementation of the Organizations Water Framework Directive Irrigation and drainage in Belarus and development A.A.Bulinya Deputy Director of "Belgiprovodkhoz" outlook Institute, Belarus N.K. Vakhonin, Director, Status of land reclamation system in Belarus and innovative ways of its development Institute of Land Reclamation, Belarus On-going improvement measures in the water A.K.Fazilov, Central Water Administration, Ministry sector of Uzbekistan of Agriculture and Water Resources, Uzbekistan Prof. V.A.Stashuk, Characteristics of water use in Ukraine given the agrarian sector reformation and climate change Prof. P.I.Kovalenko, Professional Development Institute, Ukraine N.N.Balgabaev, Director, KazNIIVH, Regional program for irrigation reconstruction and irrigated land reclamation in Kazakhstan with Kazakhstan application of resource-conservation technologies: Zhambyl province case-study V.N.Korneyev, L.N.Gertman, Water resources management in the Neman River Basin in light of adaptation to climate change CNIIKIVR, Belarus N.Nosirov, leading researcher, Institute Water conservation technologies in irrigated of Water Problems, Hydropower agriculture in Tajikistan Engineering and Environment of the Academy of Sciences, Republic of Tajikistan Prof. Ye.M.Kalybekova, Kazakh Current status of water resources and related National Agrarian University, challenges in Kazakhstan Kazakhstan

L.Kiktenko, CAREC expert, Kazakhstan	Potential of down-top approach for water conservation – CAREC experience in Central Asia
M.Yu.Kalinin, Board Chairman, Association of river guardians "Eco- Krones", Belarus	Results of the Beralus-Moldova Project "Promotion of public participation in international cooperation on integrated transboundary river basin management in western countries of EECCA"
K.A.Anzelm, Head, South-Kazakhstan hydrogeological and land reclamation field office, Kazakhstan	Application of water-saving irrigation technologies in Kazakhstan: South-Kazakhstan province casestudy
M.Ya.Makhramov, Head, BWO Amudarya, Uzbekistan	Water accounting and control along the Amudarya River
A.R.Uktamov, Deputy Head of division, BWO Syrdarya, Uzbekistan	Experience of application of automated water accounting at BWO Syrdarya

## 22 May 2015

Roundtable on improvement of NWO EECCA activity

# List of participants International Conference of NWO EECCA "Water Conservation and Effectiveness of Water Use" 21 May 2015, Minsk, Belarus

#### **Russian Federation**

- 1. Polad-Zade P.A., President of the Network
- 2. Polad-Zade A.P. OAO "Vodstroy"
- 3. Sukhoy N.A. NP "Union of water and land reclamation professionals"
- 4. Kizyaev B.M.- VNIIGiM
- 5. Prokhorova N.B. RosNIIVH
- 6. Kerimov M.K. FAVR MPR Russian Federation
- 7. Dubenok N.N. Timiryazev Agricultural Academy

#### Ukraine

- 8. Stashuk V.A. All-Ukrainian Association of irrigators and land reclaiming engineers
- 9. Kovalenko Ye.Ye. Herson provincial water agency

#### Kazakhstan

- 10. Ryabtsev A.D. Kazgiprovodkhoz Institute
- 11. Anzelm K.A.- South-Kazakhstan hydrogeological and land reclamation field office
- 12. Balgabaev N.N. KazNIIVH
- 13. Kiktenko L. CAREC
- 14. Kalybekova Ye.M. Kazakh National Agrarian University
- 15. Aldiyarova A. Kazakh National Agrarian University
- 16. Kurmashev K. Kazakh National Agrarian University

#### **Tajikistan**

17. Nosirov N.K. – Institute of Water Problems, Hydropower Engineering and Environment of the Academy of Sciences

#### Uzbekistan

- 18. Dukhovny V.A. SIC ICWC, Executive Secretary of the Network
- 19. Sokolov V.I. GWP CACENA
- 20. Beglov I.F. SIC ICWC, Network Secretariat
- 21. Fozilov A. Central Water Administration, Ministry of Agriculture and Water Resources
- 22. Uktamov A. BWO Syrdarya
- 23. Makhramov M.Ya. BWO Amudarya

#### Azerbaijan

24. Mamedov A. – PK «Merkuri Insaat»

#### **Switzerland**

25. Libert B.- UNECE

#### France

26. Boinet E.- INBO

#### Belarus

- 27. Dunayevskaya S.B.- Institute "Belgiprovodkhoz"
- 28. Bulinya A.A.- Institute "Belgiprovodkhoz"
- 29. Korneyev V.N.- CNIIKIVR
- 30. Gertman L.N.- CNIIKIVR
- 31. Shvedov O.V. Belvodkhoz
- 32. Vakhonin N.K.- Institute of Land Reclamation
- 33. Kalinin M.Yu.- Association of river guardians "Eco-Kronos"

Annex 3

Members of the Network of (basin) water-management organizations from Eastern Europe, Caucasus, and Central Asia

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
1.	OAO "Vodstroy"	Polad-zadeh Polad – Director, Network President	e-mail: info@vodstroi.ru ppolad-zade@vodstroi.ru ppoladzade@gmail.com www.vodstroi.ru	+7 (499) 261-99-06	Novaya Basmannaya, 10, Moscow, 107803, Russia
2.	SIC ICWC	Dukhovny Victor - Director, Network Executive Secretary	dukh@icwc-aral.uz dukh@rol.uz	Phone (998 71) 265 92 95, 266 41 96 Fax (998 71) 265 27 97	Karasu-4/11, Tashkent, 100 187, Republic of Uzbekistan
Kazakhstan					
1.	Kazakh Institute of Strategic Research under the President of the Republic of Kazakhstan (KISR)	Sultanov Bulat Klychbayevich	sultanov@kisi.kz www.kisi.kz	(7 327) 264 34 04 Fax 264-49-95	Dostyk avenue, 87 b, Almaty, 050010, Kazakhstan
2.	"Kazgiprovodkhoz Institute"	Ryabtsev Dmitriy Anatoliyevich - Chair of the Board	kazgipro@mail.ru adr52@mail.ru	+7 (727) -279-16- 10 Fax 279-16-14	Kazakhstan, Almaty c., Seyfullina st., 434
3.	Scientific Research Institute of Water Economy (SRIWE)	Balgabayev Nurlan Nurmakhanovich- director general, Karlykhanov Orazkhan Karlykhanovich – contact person	kiwr-t@mail.ru, IWRE@nursat.kz www.kaziwr.isd.kz	8 (7262) 425540 426071, 4255483	Kazakhstan, 080003, City of Taraz, Koigeldy St. 12
4.	Association of enterprises of water supply and sanitation of the Republic of Kazakhstan - "Kazakhstan Su Arnasy"	Syundyukov Valeriy Vladimirovich- prezident Syundukova Yevgenia – chief editor of journal "Water resources and water use"	kazsu@astanainfo.kz Syundyukova_e@mail.ru www.kazsu.astanainfo.kz	7 (7172) 37 67 54 7 (7172) 37 66 85 Cell: 7 (701) 544 59 45 Cell: 7 (701) 552 88 32	Prospect Abaya 103, P.O. box 1050, Astana, 010008, Kazakhstan
5.	Regional Hydrological Center of EC IFAS - CAREC	Abdullaev Iskandar, executive director	info@carec.kz, carec@carec.kz http://www.carecnet.org estrikeleva@carec.kz, iabdullaev@carececo.org	+7(327) 2785110, 2785022 Fax 2705337	Kazakhstan,, 050043, Almaty c., Orbita-1, 40
6.	Regional Hydrological Center of EC	Shivaryova Svetlana	shivareva@meteo.kz	+7(727)2676483	Prospect Dostyk, 280,

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
	IFAS	Pavlovna – executive director	shivareva46@mail.ru	F. +7 (727) 3873431	Almaty, 050020, Kazakhastan
7.	Office "Green Bridge", SIC ICSD	Shabanova Lyudmila Vladimirovna - Director	lvshabanova@mail.ru green_bridg_office@mail.ru www.greenbridgworld.net	+7(7172) 798390, +(7172) 798397, +7 (7015661301)	Orynbor str., 11/1, Astana, Kazakhstan
8.	GU "Southern Kazakhstan Hydrogeological and Land Reclamation Field Office", Committee for Water Resources of Kazakhstan	Anzelm Karl - Deputy Head	ggmeAK55@mail.ru	Phone: 8 7252 33 11 85, +7015917322, Fax 8 7252 33 11 85	Spataeva str., b/n, Shymkent, Shymkent G.A., Southern Kazakhstan province, 102 partiya, Republic of Kazakhstan
9.	Kazakh branch of SIC ICWC	Kipshakbaev Nariman Kipshakbaevich - Head	nkipshakbaev@mail.ru	+7/727/291-15-76	Off. 79/80, Ualikhanova str., b.98, Almaty, 050000
10.	TOO "Kazakh Scientific- Technological Center for housing and utilities infrastructure"	Shaizhanov Kairat – Director General	kazntczhkh@mail.ru	Phone +77172488090 Fax +77172499755	Syganak, 29, Astana 010000, Republic of Kazakhstan
11.	Kazakh National Agrarian University	Yespolov Tlektes, Academician, Rector	info@kaznau.kz	Phone: +7 (727) 262 11 08	Pr. Abaya 8, Almaty 050010, Republic of Kazakhstan
Tajikistan					
1.	Institute of water problems, hydropower engineering and ecology of Academy of Sciences of the Republic of Tajikistan (IWRHE & E AS RT)	Kobuliyev Zaynalobudin Valiyevich	owp@tojikiston.com kobuliev@mail.ru	(99237) 2245231	Tajikistan, 734002, Dushanbe, Parvin st., 12
2.	State institution "Tajik hydraulic engineering and land reclamation research institute" (SI «TajikNIIGiM»)	Umarov Dilshod, Director General	tj-water@mail.ru water_sogd@mail.ru	(992 37) 235 35 23, (236 59 40	Tajikistan, 734 064, Dushanbe, Shamsi, 5/1
3.	ICWC Secretariat	Babadjanova Malika	babadjanmalik@yahoo.com secretariat@icwc.info	Phone (992 37) 221 55 88 Fax (992 37)	Tajikistan, 734 064, Dushanbe, Shamsi, 5/1

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
		•		227 26 89	
4.	SIC ICWC Tajik branch	Boirov Khamidjon, Director	tb_sic_icwc@mail.ru	Phone: (992 37) 236-36-21 Fax: 235-35-54	Tajikistan, 734 064, Dushanbe, Shamsi, 5/1
Turkmenistan	1			·	
5.	Scientific Information Center Interstate Commission on Sustainable Development (SIC ICSD)	Durikov Mukhammet, Director	durikov@mail.ru	(993 12) 94-09-36	Turkmenistan, 744 000 Ashgabat, st. Bitarab Turkmenistan 15
Uzbekistan				·	
6.	Coordinating Control Center "Energy", (CCC "Energy")	Shamsiyev Khamidulla Amanovich- director, Bychikhina Svetlana Pavlovna - contact person	sekretar@udc.uz snr2@udc.uz	(99871) 236-75-12 (99871) 236-75-32 (99871) 236-78-64	Istiklol str., 6, 100000, Tashkent, Uzbekistan
7.	Agency of the International Fund for the Aral Sea Saving on the Aral Sea basin and GEF project implementation management	Sheraliev Normukhammad	ifas_undp@mail.ru www.aral.uz	(99871) 254 08 47, (99871) 255 39 34 Fax 255-02-49	Uzbekistan, 100070, Tashkent, Sh. Rustavelli st., 15
8.	Institute of forecasting and macroeconomics under the Cabinet of Ministers of the Republic of Uzbekistan (IP&M)	Sadykov Avazbek Madaminovitch - Director, Zhumanov Utkir Karshibaevich - Deputy Director	info@ifmr.uz http://www.ifmr.uz	(99871) 237-26-32 Fax 237-06-57	Kayumova str., 2, Tashkent, 100000, Uzbekistan
9.	State Inspection for Control and Supervision of technical conditions and safety of large and strategic structures at the Cabinet of Ministers of Uzbekistan (Gostehvodnadzor)	Ernazarov Nazimjon Sheralievich - Director, Talipov Shukhrat Ganievich - contact person	info@v-nadzor.uz www.v-nadzor.uz	+ 998 (71) 226-69- 10 Fax: 226-71-93 226-76-69	Turkurganskaya str, 26, Tashkent, Republic of Uzbekistan
10.	Council of Ecological Forum of private non-profit organizations of Uzbekistan (Eco-Forum of Uzbekistan)	Sanginov Saidrasul	saidrasuljon@mail.ru	172 26 69, 230 42 56	700017, Tashkent, C-6, 118/ 1
11.	State Committee of the Republic of Uzbekistan for Nature Conservation (Goskomprirody)	Abdusamatov Bakhtiyor	omsap@uznature.uz http://www.uznature.uz/	Phone: +998 71 239 41 95	Uzbekistan, 100000, Tashkent, Mustakillik st.
12.	Basin Water Organization "Amudarya" (BWO "Amudarya")	Makhramov Makhmud, Head	amu_bvo@mail.ru	(362) 512-31-26 Fax: 7-33-74	63, Al-Zamakhshari Street, Urgench, 140 000, Republic of Uzbekistan

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
13.	Basin Water Organization "Syrdarya" (BWO "Syrdarya")	Kholhujaev Odil, Head	bvosyrdarya@mail.ru www.icwc-aral.uz/bwosyr_ru.htm	265-82-42 Fax: 265-73-45	11, Karasu-4, Tashkent, 100 187, Republic of Uzbekistan
14.	Executive Committee of the International Fund for Aral Sea Saving (EC IFAS)	Khamraev Shavkat Rakhimovich Chairman	info@ec-ifas.org	Phone: (998-71) 230-44-90 Fax: (998-71) 281- 54-74	Uzbekistan, 100070, Tashkent, Sh. Rustavelli st., 15
15.	Global Water Partnership of Central Asia and Caucasus (GWP CACENA) – Secretariat	Sokolov Vadim II'ich, regional coordinator	vadim@icwc-aral.uz i.babaev@cgiar.org www.gwpcacena.net	Phone: (998 71) 237 04 45 Fax: (998 71) 237 03 17	IWMI Office for Central Asia and Caucasus, office 123, b.6, Murtazaeva str., POB 4564, Glavpochtampt, Tashkent, 100 000, Uzbekistan
16.	Irrigation and Water Research Institute at TIIM	Rakhimov Shavkat Khudargenovich - Director	saniiri@tkt.uz http://saniiri.zzl.org	Phone: (998 71) 265 18 53 Ph/F: (998 71) 265 32 41	11, Karasu-4, Tashkent, 100 187, Republic of Uzbekistan
17.	International Water Management Institute (IWMI)	Akmal Karimov, Deputy Head Oyture Anarbekov, researcher	o.anarbekov@cgiar.org		Osiye str., 6, 123, Tashkent, 100 000, Uzbekistan
18.	National Water Management Research Center at Samarkan Architectural-Construction Institute named by Mirzo Ulugbek (SamGASI)	A.N.Gadaev - Head E.H.Isakov – Vice- Rector for research work	samgasi_mo@yahoo.com	Phone: +998662370532 Fax: +998662372630	Lolazor str., 70, Samarkand, 140147b
19.	Non-governmental non-profit community organization "Protecting the Zerafshan River Basin"	Abduraimov Mansur Farmanovich	mansurzbz@mail.ru	Phone: (+99890) 212 66 34 Fax: (+83662) 73 04 08	Uzbekistanskaya str., 114A, Samarkand 140 147, Uzbekistan
Azerbaijan					
20.	Azerbaijani Research Institute of water problems (AzSRIWP)	Gambarov Elchin Surkhay ogly	gambarov@azerin.com	(99450) 350-79-33 (99412) 431-31-08	Azerbaijan, 1012, Baku, Moscow avenue, 69A
21.	Research and Design Institute "Sukanal"	Ogtai Eibatov – Director, Akhmed Mammadov – contact persorn	office@sukanal.az a.memmedov@sukanal.az ahmed@bakinter.net	(+99 412) 430 19 90 (+99 412) 434 47 67	A31012, Baku c., 67, Moscow avenue

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
				(+99412) 431 11 49 (+99450) 355 10 92	
Belarus					
22.	Central Research Institute for multipurpose water use» (CRIMWU)	Korneev Vladimir Nikolayevich – contact person	mail@cricuwr.by	+37517 Ph/F 267 27 34 +37517 Ph. 267 05 23	Slavinskogo str., 1 /2, Minsk 220086, Republic of Byelorussia
23.	Republican unitary research enterprise "Land reclamation institute" (RUE "Land reclamation institute")	Vakhonin Nikolay Kirillovich- director	niimel@mail.ru nik.vahonin@mail.ru http://niimelio.niks.by	+375(017) 292 47 14, 292-49-41(recept room) Fax 292- 64- 96	Bogdanovitch str., 153, Minsk, 220040, Republic of Byelorussia
24.	International Sakharov State Environmental University	S.P.Kundas – chancellor, contact person – Kalinin Mikhail	info@iseu.by kamu@tut.by http://www.iseu.by	(+375 17) 230 69 98 Fax 230 68 88 375 29 644 05	Dolgobrodskaya 23, Minsk, 220070, Byelorussia
25.	Association of river guardians "Eco-Krones"	Kalinin Mikhail, Chairman	kamu@tut.by	+375 29 664 05 23	
Russia					
26.	All-Russia Research Institute of Hydraulic Engineering and Land Reclamation of A.N. Kostyakov (NIIG&M)	Kizyayev Boris Mikhaylovich- director, Isayeva Sofya Davidovna - contact person	nir@vniigim.ru isaeva@vniigim.ru http://www.vniigim.ru/	Phone: 499 153 72 70 Fax: 495 729 35 00	B.Akademicheskaya str, 44, Moscow, 127550, Russia
27.	Moscow State University of Environmental Engineering (MSUEE)	Kozlov Dmitriy Vyacheslavovich- rector, Krasnoshekov Valentin Nikolayevich, Nemkina Yulya Mikhaylovna – contact persons	mailbox@msuee.ru krasnoshekov@mail.ru y_nemkina@mail.ru www.msuee.ru	(495) 976 29 62 Fax 976 10 46 (495) 976 16 45 Fax 976 47 91, 976 29 62	Russia, 127550, Moscow, ul. Pryanishnikova 19
28.	Scientific and Technical Information Center "Meliovodinform" (STIC "Meliovodinform")	Goryachev Sergei Nikolayevich - Director, Stepanova Tatyana Georgiyevna – contact person	Voda.sio@cntimelio.ru www.cntimelio.ru	(499) 784 01 70 (499) 784 01 72	Russia, 109 382, Moscow, st. Sovkhoznaya, 10, block 6

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
29.	National Information Agency «Natural resources» (NIA-Priroda)	Rybalskiy Nikolay Grigoryevich - durector, Omelyanenko Viktor Anatolyevich- first deputy director, Boriskin Dmitriy Anatolyevich – contact person	nia_priroda@mail.ru boriskin2priroda@rambler.ru www.priroda.ru	Ph/F 7 (495) 240 51 27 Mob. (107) 916 153 36 71	Moscow oblast, business-park "Rumyantsevo", 352- G, NIA-Priroda
30.	Center for Russian Waterworks Inventory and State Water Cadastre	Bednaruk Sergey Yevstafyevich, Moreydo Vsevolod Mikhailovich - contact person	bse@waterinfo.net seva@waterinfo.ru info@waterinfo.ru www.waterinfo.ru	8(495)651-95- 898(495)651-95- 968(495)651-95-97	127550, Moscow, Pryashnikova st., 2a.
31.	Russian Research Institute for Integrated Water Use and Protection (FGUP RosNIIVH)	Prokhorova Nadejda – Director, Rudnitskaya Natalya – contact person	wrm@wrm.ru rudnv75@mail.ru http://www.wrm.ru/ ludmila.stp@mail.ru	Phone/Fax (343) 374 26 79	Mira str., 23, Yekaterinburg, 620049, Russia
32.	OOO Publishing house «Ecomedia», Water Journal	Shiryaeva Marina – Director General	info@watermagazine.ru http://www.watermagazine.ru	Phone: (495) 380 11 48 Fax: (495) 380-20- 18	b.2, Golovinskoye road 8, Moscow, 125212, Russia
33.	Non-profit partnership «Union of water and land reclamation professionals»	Sukhoy Nikolai Avksentievich - Chairman of the Union Board	soyuzvod@yandex.ru	Phone: 8 (499) 153-85-38 8 (499) 976-02-89	Office 8, floor 8, B.Akademicheskaya str, 44, Moscow, 127550, Russia
34.	International Coalition «Rivers without frontiers» RBG	Simonov Yevgeni Alexeevich - Coordinator	coalition@riverswithoutboundaries. org simonov@riverswithoutboundaries. org http://www.transrivers.org http://www.arguncrisis.ru http://www.ergunariver.cn	Phone: +86 139 428 689 42 (China) +7 (196) 549 12 27 (Russia)	
35.	Non-profit partnership "Union of Water Users"	Grishin Vladimir Leonidovich - Director General	grishin0906@mail.ru	+(985) 369 32 34	Off.210, str 2, b.4, Sosnovaya avenue, Zelenograd, Moscow 124489
36.	Institute of Energy Systems named by L.A.Melentiev	Voropay Nikolai Ivanovich- Director, corresponding member of the Russian Academy	voropai@isem.sei.irk.ru www.sei.irk.ru	+7 (3952) 42 47 00	Lermontova str., 130, Irkutsk, 664033

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
		of Sciences			
37.	Institute for Safety of Hydraulic Structures	Volosukhin Viktor, Director	mail@ibgts.ru, director@ibgts.ru	(8635) 26-60-26	OPS № 21, PO 77, Novocherkassk, 346421, Rostov province, Russia
38.	NOU "Academy for Safety of Hydraulic Structures"	Volosukhin Viktor, Rector	mail@academy-gts.ru, director@ibgts.ru	(8635) 26-60-26	OPS № 21, PO 77, Novocherkassk, 346421, Rostov province, Russia
39.	Closed corporation "Sovintervod"	Polyakov Leonid, Director General	mail@sovintervod.ru	(8499)189-21-96	Yeniseiskaya str., b.2. st.2, Moscow 129344
Ukraine					
40.	Institute of Hydraulic Engineering and Land Reclamation of Ukrainian Academy of agrarian sciences	Romashchenko Mikhail Ivanovich	igim.uaan@gmail.com	+38 (044) 2573348 +38 (050) 334-35- 49	03022, Kiev, st. Vasylkovskaya 37, Ukraine
41.	National Scientific Center «Institute of soil science and agrochemistry after the name of O.N. Sokolovskogo»	Balyuk Svyatoslav Antonovich - director	pochva@meta.ua oroshenie@ukr.net www.issar.kharkiv.net	+38 (057) 704 16 69	Ukraine, 61024, Kharkov c., Chaykovskiy st.,4
42.	Kherson Agrarian University	Ushkarenko V. A rector, Morozov Volodimir Vasilovich- first vice- chancellor	office@ksau.kherson.ua http://www.ksau.kherson.ua	+38 (0552) 414418, 43-62-16 Fax 41-44-29	Ukraine, 73006, Kherson c., R. Lyuksenburg st., 23
43.	Crimean Basin Department of water resources	Lisovskiy Andrey Anatolyevich- service chief, Ignatovskaya Natalya Anatolyevna – contact person	kbuvr@crimea.com.ua http://csrc.com.ua/	+38 (0652) 594280, Fax 59-42-96 594259	95034, Ukraine, Crimea, Simferopol, str.Kiyevskaya, 77 / 4
44.	Crimean Research Center at the Institute of Hydraulic Engineering and Land Reclamation	Lyashevskiy Valeriy Ivanovich	vlyashevskiy@mail.ru	+38 (0652) 22 53 08 Fax 69 01 76	Ukraine, Kechkemetskaya st.,198, Simferopol c., Crimean obl., 95022
45.	National University of water resources and environmental engineering	Gurin Vasil Arsentyevich	mail@nuwm.rv.ua a.e.babenova@nuwm.rv.ua http://nuwm.rv.ua	+38 (0362) 63 30 63	Ukraine, 33000, Rovno c., Sobornaya sr.,11

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
46.	Seversk-Donets Basin Department of Water Resources	Antonenko Viktor Yegorovich- director, Belotserkovskaya Natalya Alekseevna, Trofanchuk Sergey Ivanovich – contact persons	sdbuvr@slav.dn.ua	+38 (06262) 2-81- 96 Ph/F 2-78-94	Kommunarov str., 35, Slavyansk, 84122, Donets province, Ukraine
47.	«Partnership of Polesie Researchers» OO «Dream Life»	President of «Dream Life» Corresponding member Bazurinu Sergei Alexandrovich Responsible executor, project officer Yuri Krakhmalyuk	d.l.polissja@gmail.com yuriy.ecohome@mail.com	+38-096-446-66-42	Grushevskogo 40- a/53, Rovno, Ukraine
Moldova					
48.	International Ecological Association of river savers «Eco-TIRAS»	Trombitskiy Ilya - chief executive officer	ecotiras@mtc.md www.eco-tiras.org	Phone/Fax: (+373- 22) 550953, 225615	Moldova, 2012, Kishinev c., Teatralniy avenue, 11A
49.	State Water Design Institute "Acvaproiect"	Katrinesku Valeriy Ivanovich - director	acvaproiect@acva.md; ank@acva.md www.acva.md	Phone: 438122 Fax: 449761	str. Russo Alecu 1, Chisinau, MD-2068, Moldova
50.	Intexnauca S.A.	Shandrovsky V.A. – Director General	office@int.md www.intexnauca.com www.itn.md	Phone: 373 22 227506 Fax: 373 22 221615	V.Alexandria, 64, Kishinev, MD 2012, Republic of Moldova
Кыргызстан					
51.	Design and technological institute "Hydrological automation and metrology" (PKTI «Wodavtomatika & metrologiya »)/ Coordination metrological center of ICWC (CMC ICWC)	Makarov Oleg Stepanovich - director	pkti@elcat.kg www.icwc-aral.uz/cmc_ru.htm	Phone (996 312) 54 11 50 Fax (996 312) 54 11 59	Toktonaliyeva str., 4a, Bishkek, 720055, Kyrgyz Republic
52.	KyrgyzNIIirrigatsiya – Kyrgyz Irrgation Research Institute	Kulov Kuvanychbek Mukanbetovich	kulov@elcat.kg	Phone (996 312) 54 11 68 Fax (996 312)54 09 75	Toktonaliyeva str., 4a, Bishkek, 720055, Kyrgyz Republic
53.	Department for Water Resources and Land Reclamation (DWR) at the	Tashtanaliev K.Zh. – Director General	nurgazym@mail.ru	Phone 54-90-95 Fax 54-90-94	Toktonaliyeva str., 4a, Bishkek, 720055,

№	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
	Ministry of Agriculture and Land Reclamation, Kyrgyz Republic				Kyrgyz Republic
54.	Choo basin water administration	Devyatkulov R.Zh Head		Phone: 0312- 483129 Fax: 0312-483154	Kirpichnaya 71, Bishkek, 720045, Kyrgyz Republic
55.	Naryn basin water administration	Sokeyev A.Sh Head		Phone: 03522- 50867 Fax: 3522-51972	Lenin 188, Naryn, 722600, Kyrgyz Republic
56.	Talass basin water administration	Batyrkulov B Head		Phone: 03422- 52827 031254-90-79 Fax: 03422- 53400	1 <sup>st</sup> of May, 212, Talas, 722720, Kyrgyz Republic
57.	Issyk-Kul basin water administration	Kaidulatov B.K. – Head		Phone: 03922- 31295 Fax: 03922-31729	Prjevalskiy 123, Karakol, 722360, Kyrgyz Republic
58.	Orto-Tokoi Reservoir Authority	Ozubekova T.S Head		Phone: 03944- 51430 Fax: 03944-50015	UOV, Orta-Tokoy village, Issyk-Kul province, 720230, Kyrgyz Republic
59.	Batken basin water administration	Shukurov Zh Head		Phone: 03622-5- 01-56 Fax: 03622-50688	Batken BUVH, Batken, 715100, Kyrgyz Republic
60.	Jalal-Abad basin water administration	Anarkulov B.K Head		Phone: (03722) 5- 51-49 Fax: (03722) 5-24- 43	Moghol 4, Jalal-Abad 715600, Kyrgyz Republic
61.	Kirov Reservoir Authority	Birimkulov A.A Head		Phone: 03459-6- 00-13 0312-29-67- 12 Fax: 03459-6-00- 13	UKV. Chon-Kapka village, 724004, Kyrgyz Republic
62.	Papan Reservoir Authority	Tadjibaev K.E Head		Phone: 03222- 34628 Fax: 03222-78395	UPV, Zainabedinova 4, Osh, 714024, Kyrgyz Republic
63.	Osh basin water administration	Abibillaev P.A Head		Phone: 03222-5- 76-25 Fax: 03222-5-91- 72	Kurmanjan Datka, 234, Osh, 714000, Kyrgyz Republic

Nº	Organization	Manager / Contact person	E-mail, Website	Phone Fax	Address
64.	Land Reclamation and Hydrogeological Field Office	Askarov A.B Head		Phone: 0312- 367468 Fax: 0312-367186	Polevaya 1, Alamedin village, Choo province, 722191, Kyrgyz Republic
65.	Kyrgyz branch of SIC ICWC	Mamataliev Nurgazy Patyidinovich	nyrgazym@mail.ru	(996 312) 54 60 96 Mob. (996 555) 28 11 09	Toktonaliyeva str., 4a, Bishkek, 720055, Kyrgyz Republic
Georgia					
66.	Regional Environmental Center for Caucasus (REC Caucasus)	- Director	info@rec-caucasus.org	Ph/F (99532) 25 36 48 (99532) 25 36 49	Chavchadze avenue, 23, floor 2, Tbilisi, 0179, Georgia
Armenia					
67.	Agency for Water Resources Management at the Ministry of Environmental Conservation, Republic of Armenia	Narimanyan Volodya Georgievich - Head, Davoyan Araksya - contact person	narimanyan59@mail.ru	Phone: +37410 54 08 67 Fax: +37410 54 08 67 (37477) 426 640	Dom Pravitelstva 3, Republic Square, Yerevan, 0010, Republic of Armenia