



# Final Documents International Conference

May 12-13, 2011 Tashkent, Uzbekistan

"Towards the 6th World Water Forum Cooperative Actions for Water Security"



#### Dear participants of the conference!

Let me cordially welcome the participants of the Regional conference organized within the preparatory process to the Sixth World Water Forum, the high-profile experts, scientists and the representatives of international organizations, ecological movements, as well as financial institutions.

It would be no exaggeration to say that since the ancient times water has been treated in our region as the highest valuable thing and the source of life and well-being. From time immemorial, the two great rivers – Amudarya and Syrdarya – have supplied the Central Asian population with sufficient water for drinking, irrigated farming, and agriculture, primarily food production. It was particularly this venue, where many centuries ago one of the first irrigation and reasonable water using systems on Earth was built.

At the turn of the 21st century, for the people in Central Asia, as well as in other regions in the world, the issue of reasonable and fair use of water resources acquires a vital importance since thoughtless regulation of large transboundary rivers which was undertaken in the last century brought our region close to an ecological catastrophe.

This is illustrated by the tragedy of Aral, which virtually as short as in one generation has been transformed from the unique and very beautiful sea into a drying up and disappearing water basin, while the area adjacent to Aral, being formerly a flowering oasis, is turning into a desert.

Not only the people living in the disaster area but rather the Central Asian region as a whole are finding themselves in the zone of a continuous environmental risk, under impact of a number of factors affecting life quality, health, and gene pool. The shortage of water resources, withdrawal of agricultural land out of production, critical reduction of flora and fauna, change of climate, and rapid melting of mountain glaciers on Pamir and Tien Shan, where the bulk of flow of the main regional rivers is formed – all these are only a short list of consequences of disappearance of the Aral Sea.

Therefore, the issues of reasonable use of the region's transboundary river waters which at all times supported the vital needs of the states located in their basin became a particularly topical. Today more than 50 million people who reside in six states of this region depend on well-grounded approach and decisions on the use of water resources, firstly, of the watercourse of transboundary rivers.

Uzbekistan supports decisions of the Fifth World Water Forum that the access to drinking water is a fundamental human right and that water crisis is much hazardous than the energy and financial ones.

In this context, the projects the implementation of which may lead to total water shortage and catastrophic anthropogenic, ecological, economic and social consequences pose a profound threat to efficient water use.

This is especially relevant when the issues related to ensuring food security are at the forefront since they directly depend on sustainability of irrigated agriculture and availability of water resources in sufficient quantity during the vegetation season.

Disregard of these serious challenges shall pose a risk to prospective sustainable development and virtually to the lives of tens of millions of people in Kazakhstan, Turkmenistan and Uzbekistan.

Moreover, the sites of proposed construction of giant hydraulic structures are in a zone of seismicity, which was proved and evident in repeated 9 point-strong earthquakes. In case of strong earthquakes that were observed repeatedly in this region, a fatal anthropogenic catastrophe threatening hundreds of thousands people could occur.

Today the humankind is confronting the important task, i.e. to preserve the nature for current and future generations and protect it from threats and challenges that can affect the lives of people and undermine the existing system of the nature use.

In this context, the need to develop mechanisms for effective regional cooperation, which shall guarantee the use of transboundary waters on the basis of generally recognized international norms and regulations for mutual benefit and equitability for each of the parties becomes vitally important.

The problems of rational usage of water resources, maintaining the hydrological balance on the regional and global scale, preserving and saving water, improving land farming which ensure reduction of water use, modernizing the water infrastructure and adoption of the latest water-saving technologies are in fact brought to agenda by our life for our close consideration and concerned discussion.

Allow me express confidence that the outcomes of the Regional Conference in Tashkent shall become a reliable basis for further fruitful collaboration for the purposes of achieving the Millennium Development Goals and shall make a weighty contribution to the preparation of the Sixth World Water Forum.

I wish all of the participants a fruitful work and further success in this important and noble endeavour.

Yours Sincerely,

Islam Karimov

President of the Republic of Uzbekistan



Excellencies, Ladies and Gentlemen, Dear friends,

Please allow me first to greet all the participants gathered here in Tashkent.

On behalf of the World Water Council and the great water family, let me also express my special thanks to the Government of the Republic of Uzbekistan for inviting me and express my regrets for not being able to be with you today.

I have asked Prof. Dukhovny, Governor of the World Water Council, to read this message to you. And I would like to thank him personally for being my spokesman today.

I would also like to communicate to you the interest and attention that the Council is paying to this international conference, which is taking place in such an important hydrographical area.

Despite our efforts, the fate of water in the world continues to be difficult. The distortions between humid and dry regions, the divide between the rich and the poor have sometimes continued to worsen as a result of demography, economic development, urbanisation, pollution and also climate change.

Needless to say that we strive to supply more and more water for agriculture, for industry and for domestic use. And this is essential to quench the thirst of populations and avoid threatening economic production.

But two years ago, at the 5th World Water Forum in Istanbul, we definitely entered a new era in the history of water. The Istanbul Forum will be remembered as one where it was agreed that the "time of easy water is over".

Little by little, the notion of scarcity of hydraulic resources has become a reality to all of us in the North, as well as in the South. We are now shifting towards a world of control and regulation policies to manage the demand for water: satisfying needs while controlling consumption; this is what today's and tomorrow's decision makers must address.

Our behaviours are gradually changing through improved consumption and by waste reduction. A more respectful conception of Nature is gradually imposed on us. Thanks to the efforts of several countries –including Central Asian countries, the road is being paved to manage water resources in a more responsible manner. We are ready to move from looting water to sharing water.

And our message must be loud and clear: this sharing must be fair. The right to water was not only asserted by the UN during the summer of 2010. It will gradually become a reality because nobody today can pretend to deprive anyone from the water he or she needs to drink or to wash, in short, to live. To this effect, the World Water Council is always at the forefront in fostering dialogue, notably in the case of sensitive transboundary situations or use conflicts between communities.

But the necessity for fair water sharing between Man and Territories must not hide another essential obligation. The sharing of water must also be fair between Man and Nature to guarantee and ensure a harmonious distribution of sufficient and healthy water, with a consideration for biodiversity. It becomes a duty to master the purification cycle and widespread sanitation and chemical pollution limitation policies.

But we need to refrain, as it is quite common nowadays, from locking ourselves up in the well known water-energy-food nexus. Obviously, we need water and energy to produce the food for an ever increasing and demanding population. But what is the use of watering and fertilising soils if at the same time, we contribute to poisoning them as we have done in so many regions of the world.

Parallel to this, we are convinced today that producing energy and making water more accessible is part of the same battle. When energy is missing and when the price of the oil barrel is skyrocketing, access to water suffers. This is why the World Water Council, throughout the climate negotiations, will continue to advocate that the water-energy package be taken into account.

We need this water-energy package just like the world needs a negotiation on climate on a brand new basis. This negotiation must strike a better balance between the necessity of fighting against poverty and the imperatives of ensuring a rigorous protection of biodiversity.

It is necessary to assert the right of each individual to access water and to guarantee enough energy to secure this access. It is also necessary to guarantee the huge quantity of water needed to feed the planet and to protect the quality of the discharged water. But this is not enough. We also have to secure the political and economic means to support the priority given to water.

Greater and better adapted financial schemes are paramount. They first lie on better asserted political stances. They also imply a courageous call for an increase in investments to respond to the needs of populations.

Talking about innovative financing schemes must not, however, make us forget that the principle of truth regarding costs applies, even if some water and sanitation infrastructure should benefit from better suited international funding. Whether the financial resources come from specific taxes on airline tickets or on financial transactions, or from North-South transactions based on decentralised cooperation, or new forms of microcredit, they represent as many new paths we are working on. But this should not replace citizens and public authorities' involvement nor their awareness of the priority given to public service needs.

We can no longer say that "water is life" without materialising the concept in national and local public policies. It is only by making the cause of water an every-day civic and moral obligation that we will be able to make strong and transparent choices on the management of the resource and acceptable future water-savings efforts.

To do so, we must value knowledge in the technical and management field. We must exchange know-how on the entire water and sanitation cycle. The transfer of knowledge is essential, but it is only useful if adapted to local specificities. These competencies – and we know this for a fact- must integrate the capacity to invest and build, but they must also cover the capacity to manage and maintain water infrastructures.

It is in full awareness of all these questions to which we wish to bring answers that our Council, France and the City of Marseille are preparing the 6th World Water Forum in March in 2012. Our planet needs concrete and credible actions and this is why we decided to focus this coming Forum on the theme of « SOLUTIONS FOR WATER ».

To mark this ambition, we decided that the slogan of the next Forum would be « Time for Solutions ».

Our mobilisation to this effect is extremely strong. It is a civic and political stance: civic because the impulse and solutions first come from the field; and political because commitment to action must involve decision makers.

We will facilitate the collection, dissemination and implementation of these solutions. We want them to lead to "commitments for water" by each State, each local authority who accept to join in.

The World Water Council, with its 350 member organisations, attaches great importance to regional and cross-continental preparatory processes. Central Asia has a very rich water culture and many organizations from all over the World would like to benefit from your experience and your input.

Thus, we encourage you more than ever to be the "voices of water" that will speak for Central Asia and share some concrete, feasible and long-lasting solutions with the rest of the world.

Thank you Excellencies, Ladies and Gentlemen, dear colleagues and friends for the support that you bring to the cause of water.

I wish all the best to this important event, which will be for sure a stepping stone on the road to the 6th World Water Forum.

The Marseille Forum represents a formidable opportunity for the cause of water. Let's make the most of this opportunity through your participation and your support.

You are all welcome to join the "Forum of Solutions", and I look forward to seeing you in Marseille in March 2012.

Mr. Loic Fauchon President of the World Water Council



## **FINAL RESOLUTION**

## **International Conference**

"Towards the 6th World Water Forum – Cooperative Actions for Water Security"

## **Final Resolution**

International Conference

### "Towards the 6th World Water Forum – Cooperative Actions for Water Security"

Within the framework of preparatory process to the 6th World Water Forum and based on key thematic priorities set by the World Water Council and the UN Millennium Declaration, the participants of the Conference have discussed in detail the regional issues of guaranteed and sustainable water supply to all spheres of human activity and to environment, with consideration of climate changes and negative consequences of anthropogenic impact on the basin in the interstream of Amudarya and Syrdarya. Taking into account this discussion, participants of the Conference make the following statement:

1. The Conference acknowledged the pricelessness of water as the nature' gift. In Central Asia, water resources are of especial importance for securing sustainable development in the region, food security, environmental safety and people's health, and, as a whole, for achievement of the Millennium Development Goals.

2. The Conference's outcomes confirm a need to strengthen international and regional cooperation on transboundary watercourses in the region. Given the current high climatic risks, only such cooperation, which is founded on equal access to transboundary water resources and rational water use, may serve as a basis for sustainable socio-economic development, environmental safety, and stability in the region.

**3.** In this context, particular attention should be paid to observance by the region's states of international law norms, including the Conventions on Protection and Use of Transboundary Watercourses and Lakes (1992) and on the Law of Non-Navigational Uses of International Watercourses (1997). Given the global challenges related to climate change and predicted steady demographic growth, irrational water use may cause irreversible damage to all riparian states.

4. The Conference participants pay special attention to a need for improvement of efficiency of water use by the region's states for people's needs (guaranteed access to water for all and the right to water), agricultural needs (reduction of losses in irrigation networks, implementation of water distribution and accounting systems, and application of alternative and water-saving agronomic technologies), and for ensuring environmental safety (reduction of anthropogenic risks casing pollution of water resources and disturbance of fragile ecological balance).

5. The Conference participants have agreed on the following most priority issues of the regional agenda for the 6th World Water Forum:

I. Adoption and steadfast implementation by all states in the region of international water law norms and principles, according to which transboundary river water in the territory of any state should be used in such a way so that not to do harm to other riparian states, whereas construction of hydraulic structures on transboundary rivers may be undertaken only provided that the findings of independent international expertise are positive and with consent of downstream states. There is a need to enhance activities of international institutions in part of engagement of those region's states that have not joined the International Conventions yet.

**II.** Strengthening of cooperation among the states in area of rational water use in the region in order to improve efficiency of joint management and use of transboundary waters and water-management infrastructure, raise sustainability of water supply and adopt innovation technologies. Disseminate widely positive experience in reduction of water wastage in agriculture through implementation of integrated water resources management (IWRM), improvement and reconstruction of irrigation systems.

**III.** Ensure reliable flow regime of transboundary rivers for normal life sustenance in the region and meeting of drinking and agricultural needs.

IV. Ensure food security of the region's states through sustainability of irrigated farming and sufficient water availability during growing seasons.

6. The Conference participants call upon the international community and participants of the 6th World Water Forum to contribute to promotion of the principles of sustainable growth and ecological balance maintenance on the basis of the proposed regional agenda.

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## CHARTER OF GLOBAL WATER SECURITY

## CHARTER OF GLOBAL WATER SECURITY

## (Draft of Address of the Conference Participants to the Sixth World Water Forum)

1. Water is a common social and natural resource, which first must be used for meeting drinking and household needs, nutrition and food production (irrigation agriculture) needs, for ensuring health, diet, minimal livelihoods and well-being of population, especially of vulnerable people, for meeting environmental demand, and conserving and developing flora and fauna.

2. Water should serve the purpose of cooperation and by no means should become a cause of conflict.

3. Water is the nature's gift, without which no life is possible on the Earth. Everyone has the right to life and, hence, to natural water. Therefore, in no circumstance, water in the open natural water bodies (oceans, seas, lakes, and rivers) can be considered as a commodity.

4. Equitable and reasonable access to water for each is an ethic, moral, and legal right guaranteed by the State in quantity, which meets the physical standards and the most advanced technologies.

5. Each user must practice water saving by avoiding its wastage, protecting quality of water in the sources from pollution and deterioration, timely covering costs related to water production and conveyance in the pipeline network.

6. The right of nature to water should be protected in both humid and dry conditions, avoiding disappearance or catastrophic reduction of natural water areas.

7. Nobody may cancel the right to transboundary waters and equal access to them by all countries located along their historical courses. If overall demand growths or resource depletes, it is essential to transfer to up-to-date water supply and water use technologies by consent and upon agreement with neighboring countries.

8. Nobody has a right to modify flow regime in rivers in such a way that causes artificial droughts or floods.

9. Any action on transboundary waters, including construction of large hydraulic structures, may be undertaken only provided that the findings of independent international expertise are positive and with consent of all states-users and must not do harm or cause damage to downstream states.

10. The system of national water governance should be built in form of sustainable body of legal and social rules and norms that cover all water hierarchical levels and all aspects of social life, including economy. Consequently, this will ensure the guarantee of water for the nature and human.



First plenary session - opening of the Conference



Participants of the Conference



Participants of the Conference



Speech by J-F. Donzier, Permanent Technical Secretary of the International Network of Basin Organizations (France)



D.Kozlov - Rector of MSUEE (Russia)

S.Ibatullin - Chairman of EC IFAS (Kazakhstan)



L.Guye – Country Director, Swiss Cooperation Office (Switzerland)

B.Alikhanov – Vice-speaker of Legislative Chamber of Oliy Majlis, Chair of Executive Committee of the Central Council (Kengash) of the Ecological Movement (Uzbekistan)



Speech by the Ambassador of South Korea in Uzbekistan H.E. Jun Dae-Wan

Speech by M.Jenca – the Head of the UN Regional Center for Preventive Diplomacy in Central Asia



Participants going sightseeing in Tashkent

Stork in the territory of "Khastimom" memorial

## INTERNATIONAL CONFERENCE PROGRAM

"Towards the 6th World Water Forum – Cooperative Actions for Water Security""

## **FIRST DAY - May 12, 2011**

### **First Plenary Session**

Welcome speech on behalf of the President of the Republic of Uzbekistan I.A.Karimov

Address to the Conference participants on behalf of the President of World Water Council L. Fauchon

#### Addresses:

**M. Jenca -** Head, Special Representative of the UN Secretary General UN Regional Centre for Preventive Diplomacy for Central Asia

**A.O. Orman -** Chairman of Water Resources Committee at the Ministry of Agriculture, Republic of Kazakhstan

**Z.I. Zhamaldinov -** Chair of the State Committee for Water Resources and Land Reclamation, Kyrgyz Republic

**S.N. Rakhimov -** First Deputy Minister of Land Reclamation and Water Resources , Tajikistan

A. Mukhammedov - Deputy Minister of Water Resources, Turkmenistan

**Sh. Khamraev** – Deputy Minister of Agriculture and Water Resources, Republic of Uzbekistan

### Key Reports:

**J-F. Donzier -** Regional Coordinator of European Regional Process, INBO Executive Director (France), "Water Priorities in Light of European Campaign on the Way to the Sixth World Water Forum"

**B. Moldobekov -** Director of Kyrgyz-German project (Kyrgyz Republic), "Climate Change in Central Asia and Conservation of Flow Formation Zone"

**D.B.Kozlov** – Rector of Moscow State Environmental Engineering University on behalf of Academician P.A. Polad-Zade, President of International EECCA Network of Water Organizations, "Prospects of Water Use in Eastern Europe, Caucasus and Central Asia on the Basis of Integrated Water Resources Management"

**S.R. Ibatullin -** Chairman of IFAS Executive Committee (Kazakhstan), "Enhancing International Cooperation around the Central Asian Transboundary Water Courses"

L. Guye - Regional Office Director, Swiss Agency for Development and Cooperation

(Switzerland), "Switzerland' Support to Transboundary Water Cooperation in the Middle East and Central Asia"

**B. Alikhanov -** Vice-speaker of Legislative Chamber, Senate of the Republic of Uzbekistan, "Environmental and Water Problems in Central Asia"

### **Second Plenary session**

#### **Reports:**

**A. Grobicki -** Executive Secretary GWP (Sweden), "Neutral Platform of the Global Water Partnership for Capacity Building in Water Sector of the Countries of Caucasus and Central Asia"

**P.I. Kovalenko -** Vice-President of International Commission on Irrigation and Drainage (Ukraine), "Irrigated Agriculture under Conditions of Growing Water Crisis and Socio-Economic Reforms"

**N. Chkhobadze -** Member of International Advisory Council of the REC Caucasus, Co-Chairman of the Greens Movement of Georgia / Friends of the Earth

**S. Zhigarev** – Director of Hydraulic Design Institute "Gidroproyekt" (Uzbekistan) "Issues of Ensuring Safety of Hydraulic Structures during their Designing, Construction, and Operation"

### Round tables (parallel):

#### First Round-Table "Guaranteeing Water for Future Generations"

Moderators: Mr. V.A. Dukhovny – WWC Governor (Uzbekistan), Mrs. N.B. Prokhorova – Russian Research Institute of Integrated Management and Protection of Water Resources (Russia)

#### Second Round-Table "Ensuring Sustainable Drinking Water Supply"

Moderators: Mr. A.O. Orman, Chairman of Water Resources Committee (Kazakhstan), Mr. U. Khalmukhamedov, Director General of Agency «Uzkommunkhizmat» (Uzbekistan)

## **SECOND DAY - May 13, 2011**

### Round tables (parallel):

#### Third Round-Table "International Cooperation on Transboundary Water Management on the Basis of International Water Conventions"

Moderators: Mrs. F. Loures, World Wildlife Fund, Mr. Sh. Khamraev, Deputy Minister of Agriculture and Water Resources (Uzbekistan), Mr. S.R. Ibatullin, EC IFAS (Kazakhstan)

# Fourth Round-Table "Adoption of innovations in agrarian sector in order to achieve food security"

Moderators: Mr. P.I. Kovalenko, UkrNIIG&M (Ukraine), Mr. N.E. Nadjimov, Director, Rural Restructuring Agency (Uzbekistan)

#### Fifth Round-Table "Risk Management and Water Security"

Moderators: Mr. B. Libert, UNECE (Switzerland), Mr. N.M. Umarov, Chairman of State Committee for Nature Conservation (Uzbekistan)

# Sixth Round-Table "Integrated Water Resources Management – as a Tool for Balancing Multiple Uses of Water"

Moderators: Mrs. A.Grobicki, Executive Secretary GWP (Sweden), Mr.V.I. Sokolov, Regional Coordinator GWP CACENA (Uzbekistan)

# Seventh Round-Table "Climate Change and Conserving Environmental Capacity"

Moderators: Mr. B.Sh. Kadyrov, First Deputy Director General of Uzhydromet, (Uzbekistan), Mr. S.S. Sanginov, Deputy Chair, Ecological Movement of Uzbekistan, (Uzbekistan)

### Third Final Plenary Session

Summary on round-tables – speeches by the moderators of round-tables, adoption of the conference final resolution.

## **Concluding Press-Conference**



## BRIEF OUTLINES OF THE CONFERENCE SPEECHES

# Ambassador Miroslav Jenča, UN Secretary - General's Special Representative and the Head of the UNRCCA

Dear Chairman,

Distinguished participants of the conference,

Allow me to express my gratitude to the Government of the Republic of Uzbekistan for extended hospitality and the excellent organization of the conference, that takes place in the run up to the 6th World Water Forum in Marseille in 2012.

This impressive gathering of high caliber national, regional and international experts is an outstanding demonstration of the countries' commitment to consolidate further efforts aimed at ensuring water security. I appreciate the opportunity to address the esteemed audience and contribute to the constructive discussion on issues of significance to the entire Central Asian region. I also would like to commend the work of the World Water Council for raising the awareness about global water agenda and providing a platform to review potential solutions.

Dear Ladies and Gentlemen,

The UN Regional Centre has established close partnership with all Central Asian states. In consultations with the countries of the region issues related to the management of water resources have been identified as one of the priority areas for the Centre's activities.

Two transboundary rivers of Central Asia – Amudarya and Syrdarya – historically have been providing a basis for hydrological, social and economic interaction between the societies living in the region. Nowadays, these water arteries remain indispensable factors for economic development and further improvement of living standards, thus contributing to achieving development goals identified in the Millennium Declaration. Consequently, the efficient and rational approach to the water sector is of crucial importance for developmental needs of Central Asia and its long-term stability. It requires responsible attitude from all countries of the region.

In this context, Uzbekistan's achievements and practical experience in improving water resources management as its contribution to the regional water security is difficult to overestimate. As the country, which felt immediate negative impact of the Aral Sea desiccation, and whose socio-economic development, environmental conditions and livelihood security of millions of its population are dependent on the availability of the guaranteed and sustainable water resources, it strives to gain from the international experience in the field of rational and responsible use of water. We observe that being aware of the complexity of the water situation in the region, Uzbekistan at the national level is geared to improvements in irrigation systems and technology, water accounting, introduction of water saving technologies, and to promote environmentally friendly approach in agro-industrial sphere.

In support of the Government's efforts the UN agencies present in Uzbekistan are rendering much-needed assistance in this area. Among them we can outline numerous projects aimed at helping to achieve ecosystem stability on degraded lands in Karakalpakstan and the Kyzylkum Desert; to formulate an integrated approach in irrigated land management to improve environmental quality and agricultural productivity, GEF SGP (Global Environment Facility's Small Grants Programme) to assist country's efforts to implement conventions on biological diversity and climate change, to develop a national integrated water resources management and water use efficiency plan for Zarafshan River Basin of Uzbekistan and others.

During his visit to Central Asia in April 2010, the UN Secretary-General Ban Kimoon witnessed one of the world's worst environmental disasters as he flew over the shrinking Aral Sea – a sight which he said underscored the need for collective action to save the planet's resources. Mr. Ban emphasized that much more needed to be done to enhance regional cooperation in the management of common natural resources and pledged continued UN's assistance for countries' efforts. He proposed to use the UN Regional Centre as a platform for dialogue to resolve disputes and to find negotiated durable solutions for problems facing the Aral Sea Basin.

The Centre's approach in addressing existing challenges in this area is collaborative, responsive and strategic. It is based on the letter and spirit of the Joint Statement by the Heads of all Central Asian states-founders of the IFAS adopted at the Summit of this unique regional organization in April 2009. In line with the conclusions of the Summit the Centre is engaged in efforts to assist with institutional strengthening of the Fund and support the development of mutually acceptable mechanism of a comprehensive use of water resources and environmental protection in Central Asia with consideration of interests of all states of the region. To institutionalize our cooperation with the Fund, the Centre signed a MoU with the IFAS Executive Committee and agreed on a specific "road map" for further joint activities. Until present, we have undertaken a series of activities that provide a neutral platform for discussion on existing barriers to increased cooperation while strengthening commitments to the implementation of existing initiatives. These activities included the organization of two ministerial level meetings that have brought senior Central Asian state representatives together with donors to clarify and strengthen their commitments to the IFAS and to design the next 5 year basin development plan (ASBP-3 for 2011-2015), which was supported in principle last December at a meeting in Almaty. I hope that in the near future the plan will be ratified by relevant bodies of all Central Asian states.

One of the key prerequisites for incremental progress in the management of common natural resources is full respect to norms and principles of International Law. With this in mind the Centre, in cooperation with UNECE and other partners, convened a number of meetings focusing on international legal instruments and best practices in negotiating mutually beneficial water agreements. We strongly believe that the UN legal instruments and notably the 1992 UNECE Water Convention that already entered into force provide a solid framework to discuss and find solutions to existing problems on trans-boundary Rivers in the region.

The current situation in the management of water and energy resources remains very complex. While some countries lay special emphasis on big hydro power development, the others express concerns about possible implications for their economies, safety and environment. A clear example of growing disputes is the Roghun hydro power plant project. The UN position on the subject was stipulated by Secretary-General Ban Ki-moon during his visit to the region. A durable solution can only be found through constructive dialogue respecting interests of all riparian states and in line with international law. The UN fully supports an independent objective international risk assessment of the project, led by the World Bank, and urges all parties concerned to facilitate the unimpeded preparation of the study and subsequently to comply with its recommendations.

#### Dear Participants,

I wish you constructive deliberations that would contribute to enhanced cooperation and better understanding in the region and result in concrete proposals for a successful World Water Forum to take place next year.

Thank you.

#### Academician Polad Polad-Zade, President of INBO-EECCA, Russia (Read by D.Kozlov, Rector of Moscow State University of Environmental Engineering)

Dear Mr. Chairman! Ladies and Gentlemen, Colleagues!

First of all, let me thank the Organizing Committee for invitation to take part in such a substantial, very important and timely event. Undoubtedly, the Sixth World Water Forum will open a new page in the record of efforts on conservation of water resources, their sound use, and promotion of efficient resource management. Our Conference is dedicated to fostering a reasonable, professional view on water issues in the Central Asian region in order to make consolidated contribution to preparation of the Water Forum. All of us eventually wish that water be clean and accessible to all the people, that water be used soundly without distorting the ecological equilibrium.

Historically, the Central Asian region was not only a place where water problems were concentrated but was also characterized by its ability and skills to overcome such problems. Here, the people know the value of water and follow the ancient principle 'Obi-Khayat', which means 'water is life'.

Last century, especially in the Soviet period, ambitious water projects were implemented and changed this land. A term of 'water civilizations' has occurred recently in historical sciences, particularly in Sinology. Let us leave studying the ancient roots of this term for historians, and I just would like to say that in this land a mere one generation saw the occurrence of water civilizations. The feat of Uzbek peoples who transformed an unpopulated, desert, barren salty area of Hunger Steppe into the flourishing, denselypopulated progressive land is still awaiting its appraisal and entry in history.

Central Asia has been always the heart of new ideas in the water sector, accumulating the centuries-old experience and knowledge of the past generations. It was here that such coryphaei – founders of the Soviet irrigation and drainage school as Kostyakov, Askotchenskiy, Poslavskiy and many others made a start.

Of particular importance for world science is the experience accumulated by Uzbekistan in integrated development of land, construction of effective drainage systems to control soil salinization, automation of water management, and other scientific and industrial achievements that are practiced and disseminated among many countries all over the world. I see with pleasure and pride how the two basin organizations – BWO Syrdarya and BWO Amudarya – established before the very collapse of the Soviet Union have been functioning in the challenging environment of transboundary water sharing.

Finally, once again I would like to underline what I repeatedly spoke from different platforms. When the Soviet Union collapsed and a guarantor of unbiased allocation of the resources from the great Central Asian water-feeders – the Syrdarya and Amudarya rivers

- has disappeared, the five Presidents have met and, having demonstrated their wisdom and political will, have established an exterritorial body – ICWC – which was to ensure water management to the benefit of all five nations under very difficult conditions induced by climate change. This is exemplary for many regions in the world. It is not for nothing the UN Secretary General said that: "The world is on the threshold of water wars". The century-old wisdom of the Central Asian peoples will never allow to cross this threshold. Since independence, the host country of this conference – Uzbekistan – has been continuing successfully to improve the water cause, i.e. implement integrated water resources management, apply automation of waterworks, establish extension services. This is a result of laborious tasks of water professionals and purposeful activities of the government leadership. Finally, this has led to reduction of unit water use per irrigated hectare.

On the way towards the next World Water Forum we should unite our efforts and focus altogether on the water problems of global concern. We have to work together since water has no frontiers. That is why recently the issues related to transboundary water have been placed in the forefront of the current global challenges.

We should pay particular attention to a few very topical issues.

- 1. The highly sensitive matter of the growing pollution of water sources on a global scale.
- 2. Provision of population with clean drinking water.
- 3. Water and climate.
- 4. All-round implementation of integrated water resources management in practice. Clear and articulate division of management functions between the state and the water users' organizations.
- 5. Undertaking of feasible measures to promote scientific-technical progress in the water sector and aimed primarily to save water and prevent pollution.
- 6. Safety of hydraulic structures.

In my opinion, all these issues and other water-related aspects should be thoroughly analyzed and responded through a set of concrete measures.

Coming back to the first issue of pollution, I would like to express some of my considerations. Today's world is carried away by technological aspects of water treatment. New, breakthrough technologies originate and their inventors demonstrate facilities with which one may drink water taken from a puddle. This is good but may be it is better or rather more appropriate to concentrate efforts on prevention of natural water pollution. Counting only on economic sanctions on the industries polluting water sources would not solve the problem. We need realistic programs providing for concrete measures and monitoring of water bodies and supported by the governments.

As far as climate is concerned, it is necessary to keep in mind that the global warming issue moved from the category of scientific guess to that of real world. It is evident for us that global climate changes will first affect water resources. And the science still does not have a definite answer to this key question. Different assessments, forecasts, and opinions are available in this context. Therefore, it is necessary to agree upon and base probably on worse development scenario. In the meantime, the heat and drought in 2010 caused substantial damage to economies of Russia and a number of other countries and resulted in the rise of food prices. This reminded the society of the ways to eliminate such disaster since so far nothing but irrigation was found as a drastic measure to ensure stable farming under any climatic conditions. Unfortunately, the huge experience of our joint work accumulated in this area in the past was found to be unclaimed. I could do believe that the lessons of the past year would be learnt in both Russia and our neighbors, and the land reclamation matters would be adequately positioned in national policies. Otherwise, we will see collapse of the agricultural sector and further rise in food prices.

Another one aspect of this problem is the forecasted growth of population on the Earth and the forecast that as early as by the mid of this century the world will face the food

shortage. This opens immense opportunities for our region in terms of food export. While today our region is a large exporter of raw hydrocarbons, then in the presence of political will and if well-thought-out measures are implemented, we could altogether become one of the main actors on the food market and fully compensate the forecasted shortage. We have everything for this – vast areas of cultivable land, huge resources of renewable freshwater, and sufficient quantity of employable population.

The legal framework of water relations is a very important issue. Unfortunately, this framework is not perfect and is not available at all in some countries. For us, especially under transboundary water conditions, it is very important that national legal water acts should be identical as much as possible. This should not be regarded as an infringement on sovereignty; this is only a requirement issuing from shared responsibility.

It seems advisable to adopt such legal acts that provide for the right of every human to water, while deprivation of access to water should be considered as an infringement on human rights with all the ensuing consequences.

The water-management organizations from some countries in the Eurasian region established an Information Network of Eastern Europe, Caucasus, and Central Asian countries almost one year ago. We appreciate the recognition and support of this initiative by WWC and EC. This new institution entrusted me to propose to you for the World Water Forum to adopt a Water Security Charter.

We think that such document will promote consolidation of the civil society and the decision-making authorities in order to solve water-related problems to the benefit of mankind at large. Let me announce a draft of this document.

Finally, I would like to thank the Government of Uzbekistan and personally the President, honorable I.A.Karimov for continuous attention to water issues and reasonable and wise water policy implemented under complex regional water conditions.

I am applying to the participants to adopt the Charter of Global Water Security and submit it to the Sixth World Water Forum (the text of the Charter was read out).

Thank you for attention!

#### Brief outline of the speech by Anarbek Orman, Chairman of the Water Resources Committee, Ministry of Agriculture of the Republic of Kazakhstan "Water Resources Management in Kazakhstan"

Ladies and Gentlemen,

#### Colleagues!

Let me first thank the Organizing Committee for invitation to take part in this meaningful, extremely important and well-timed event.

The Kazakhstan's surface water resources in the average water year amount to 100.5 km3, of which only 56.5 km3 are formed in the territory of the republic. The rest flows from neighboring countries.

The Government of Kazakhstan carried out structural reorganization of the water sector in order to divide clearly responsibilities at national and local levels.

In the result of reforms, a multilevel water management system integrating the interstate, state basin and territorial management levels was formed.

At the interstate level, cooperation with riparian countries is established in sharing and protection of transboundary water resources.

At the state (national) basin level, water resources use projects of national and regional importance are implemented.

At the territorial level, operation and maintenance of all government-owned water networks and structures are carried out.

This situation indicates that some legal and institutional conditions have already been established in Kazakhstan for transition to integrated water resources management.

Kazakhstan already has some advantage for transition to integrated water resources management because, according to the Water Code, management of water bodies is based on the basin principle, which is in line with the first principle of integrated water resources management. In all eight river basins, basin councils have been established and function; their basic objective is coordinating efforts of the state bodies on water resources management, land resources management, environment conservation, and water quality protection, of different categories of water users, community organizations, etc.

Dear participants, let me once again wish you successful and fruitful work!

Thank you for attention!

#### Brief outline of the Speech by Ziyadin Jamaldinov, Chair of the State Committee for Water Resources and Land Reclamation of the Kyrgyz Republic

Dear participants of the Conference!

Ladies and Gentlemen,

First of all, allow me to express my gratitude to the Government of the Republic of Uzbekistan, World Water Council, Network of water management Organizations of the Eastern Europe, Caucasus and Central Asia countries, Swiss Agency for Development and Cooperation, International Fund for Saving the Aral Sea, Global Water Partnership of Central Asia and Caucasus, and Ecological Movement of Uzbekistan for the perfect organization of the Conference of such high level on the Uzbekistan land!

On behalf of the delegation of the Kyrgyz Republic let me welcome warmly all the participants and wish successful and fruitful work!

This Conference is conducted as a part of the preparation for a global-scale event – 6th World Water Forum to be held at the beginning of the next year in Marseille. As you know, esteemed conference participants, selection of the venue for the conduction of a regular World Water Forum is highly symbolic, since on 14th June 1996 is was in Marseille where the World Water Council was officially established. The contribution of the World Water Council to raising awareness of global water problems and political mobilization is more than convincing.

Kyrgyzstan attaches great significance to the results of this Conference which are to be reflected by the definition and coordination of the regional agenda for the upcoming World Water Forum.

The topics of the roundtables of this Conference shows the necessity and vital

importance of water resources for all spheres of human activity and natural complexes:

- Water guaranteed for future generations;
- · Risk management and water security;
- Introduction of innovations to the agrarian sector with the purpose to ensure food security;
- International cooperation in transboundary watercourse management based on international water conventions;
- Integrated water resources management is an instrument for balancing multipurpose water use;
- Climate change and conservation of environmental assets;
- Ensuring of sustainable drinking water supply.

After having adopted the Water Code, our country follows the principles underlying therein: water resources management on the hydrographic basis; water resources conservation for the present and future generations; consideration of the interests of all water users and sectors; public involvement to the water management process. In other words, orientation is taken toward wide implementation of integrated water resources management principles.

Taking into account the interests in conservation and use of water resources for the generation of electric power is important for us. The water and power potential of the Kyrgyzstan rivers is estimated within the range of 142-162 billion kW-h, and here our republic ranks third among the CIS countries after Russia and Tajikistan.

The National Water Council was founded in 2006 in order to achieve the target goals. A year ago, a decision to set up new structures, Basin Water Management Administrations, was taken at the government level. Establishment of basin councils – river parliaments has started; their work will be aimed at the coordination of the activities within river basin boundaries; basin plans have been developed for two basins. In future, it is planned to continue the started works under the supervision of the established State Committee for Water Resources and Land Reclamation which is also entrusted with water resources management.

The International Fund for Saving the Aral Sea is a regional platform for cooperation with the view of effective use of water resources, achievement of sustainable development within the basin and in the Central Asian region. Development of the third long-term regional Aral Sea Basin Program (ASBM-3) has been completed to date; it aims at sustainable development, improvement of water resources management, and environmental protection. We are hopeful that the Program, as a result of joint efforts of the donors, Governments of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, civil society, and EC IFAS, will be successfully implemented in the near future.

Our state, located in the zone of the formation of such great rivers as Amudarya, Syrdarya, Chu, Talas, and Tarim, has many years' experience of cooperation with the neighboring countries Kazakhstan, Tajikistan, and Uzbekistan within both the pentalateral Interstate Commission for Water Coordination and bilateral, within the Interstate Commissions: Chu-Talas with the Republic of Kazakhstan, with Uzbekistan, and with Tajikistan. Positive experience of collaboration within the Chu-Talas Interstate Commission has gained international recognition, and we find it necessary to expand the scope of this Commission; thus, for example, the both parties already acknowledged the need for the establishment of Interstate Basin Council and Interstate Information Center, and we will make efforts for the realization of the contemplated actions. I think the effectiveness of water resources use can be assessed through such important criteria of the state development and stability as food security, national prosperity and health, high fertility and productivity of irrigated lands, stability and safety of ecosystems.

It should be noted that in these issues our country has problems needed to be solved. Thus, one of those is the reduction of areas under wheat – important basic crop, decrease of its production and yield volumes. The reason for this is change of crop pattern for more profitable crops, which adversely affects the provision of food security.

In addition, I would like to remark the expanded areas the of irrigated land the reclamation state of which is poor; these areas come about 100 ths. ha to date.

Like the whole world community, Kyrgyzstan is concerned with the climate changes that take place nowadays and the processes that ensue from these changes. First, this is reduced areas of glaciers that are natural accumulators of atmospheric moisture and sources feeding rivers in summer. In Kyrgyzstan, the number of glaciers since 1977 has reduced by 22 %, i.e. from 8208 to 6445; at that, the most degradation in glaciation is observed in the basins of the Talas, Chu, and Tarim rivers. It is natural to expect decrease in the flow of the rivers that are fed from glacier and snow within 15-20 years, which will have a negative impact on supply of water to irrigated lands, may lead to under-generation of hydroelectric power. I think that measures for the adaptation to climate change at both the national and regional levels should be worked out even now, and we all should make joint efforts toward this.

Dear Ladies and Gentlemen, the United Nations Millennium Development Goals Program is devoted to the war against poverty and general rise in the social living standards. According to the World Health Organization, 80 % of all diseases are caused by the consumption of water of poor quality, at that the most adverse situation is observed in rural areas.

To improve drinking water quality in rural communities, the National Program "Taza Suu" was developed and adopted. Within that, the "Community-based infrastructure services sector" and "Rural water supply and sanitation" projects to the total amount of 69.5 mln. US dollars with the financial assistance of such donors as the Asian Development Bank and World Bank. As a result, about one million people of 509 rural villages have access to safe drinking water and improved sanitary and hygienic conditions due to supply of drinking water.

Taking into account the fact that more than half of the villages in the republic have not yet access to safe drinking water, the donors allocated additional funds for the continuation of the works under the Program "Taza Suu" to the total amount of around 48 mln. US dollars for the period till 2013.

I would like to point out once again that Kyrgyzstan has something to say on every selected topic of the Conference: this implies certain experience gained, achievements, and existing problems, as well as outlined plans and proposals for their implementation. In the course of the Conference, our high-level specialists can tell about this at roundtable meetings.

Dear participants of the Conference, allow me once more to wish you successful and fruitful work!

Thank you for attention!
#### Brief outline of the speech of the First Deputy Minister of Land Reclamation and Water Resources of the Republic of Tajikistan Sulton Rakhimov

Dear Mr. Chair,

Dear participants of the Conference,

Ladies and Gentlemen!

Allow me, on behalf of the Republic of Tajikistan, to express the gratitude to the organizers of this Conference, i.e. the Government of the Republic of Uzbekistan and the World Water Forum for the warm welcome and good working conditions created.

As is known, the main purpose of the conduction of a preparatory conference for World Water Forums is to define the positions of the regions in respect of the issues and problems taken by the organizers as the priority.

Twelve key priority actions grouped around three basic components of sustainable development have been defined for the 6th World Water Forum. It should be noted that the selected topics to be discussed are completely in line with the priority issues of the Central Asian region concerning the use of water and energy resources.

Within this Conference, the organizers have selected seven topics to be considered that are identified by them as the most priority ones for our region. I suppose that open and constructive discussion of these issues will allow us, i.e. conference participants, to identify the main problems and define our future cooperative actions to solve them.

It is generally known that to date the problem of water and energy resources use is the most topical for Central Asia, and stability and prosperity in the regional countries depend on solving of that. To our deep regret, this problem is becoming critical from year to year, and ignoring of that may bring to unwanted and grave consequences. On the other hand, constructive discussions around the water and energy problems would reflect our desires and aspirations for the solution of them.

Because of the rupture of the former interrelations in water and energy resources use, the upstream countries have to change the operating mode of their reservoirs to the energetic mode, which of course can negatively affect the water availability for irrigated lands of the downstream countries during the vegetation period.

At the same time, there is good opportunity to use water and energy resources, taking into account the interests of both the upstream and downstream nations equally and the water use sectors, especially energy sector and irrigation, with which all the parties could benefit. It is estimated that the economic benefits from those could come annually to 5 % of the regional GDP (Central Asia HDR, UNDP, 2006).

The present day challenges, which progress far faster than our actions to struggle against those, also call for well organized water cooperation. According to experts, the glacier resources in the region have reduced during the 20th century by nearly 30 %. This tendency together with rapid population growth, which certainly will cause increase in water consumption, cannot but give rise to anxiety. To date, the resources of natural runoff in the Aral Sea basin have been completely exhausted and the economy of that area is developing under the conditions of growing water deficit.

We suppose that in this situation it is harmonization of the energy and water issues, as well as enhancement of international cooperation that are the key to solve these problems.

First, this concerns ensuring water security and secured water supply to irrigate lands of all countries in the region during dry years.

Second, low-cost and environmentally safe generation of electric power.

Development of hydropower resources also contributes to substantial reduction of carbon dioxide emissions to atmosphere.

The Republic of Tajikistan repeatedly stated its readiness to collaborate with all interested parties and, first, with the countries of the region for the development of the rich potential of the latter.

We fully realize that it is impossible to achieve any success without proper cooperation, and, therefore, we state our readiness to cooperate with all countries in the region on the basis of such fundamental principles as sovereign equality, mutually beneficial cooperation, good neighborly relations, and faithful compliance with the commitments of international agreements.

Only timely and joint efforts would allow the regional countries to confront together the today's challenges and find right ways to solve the existing and emerging problems.

It is good that this conference is held under the slogan «Cooperative Actions for Water Security». I believe that this context – cooperative actions and strengthening of cooperation – will promote more effective management of water and energy resources for ensuring water security, growth of economy, improvement of the population wellbeing, and, in general, achievement of sustainable development.

Thank you for your attention and I wish success, constructive dialogue, and fruitful work to all participants of the Conference.

#### Welcome Speech by A. Mukhamedov, Deputy Minister of Water Resources of Turkmenistan

Dear participants of the International Conference!

Ladies and gentlemen,

First, I would like to express my gratitude to the host party, representatives of Uzbekistan, for the warm welcome given to our delegation. I would also like to thank the Organizing Committee for the invitation to participate in the International Scientific Conference devoted to such important problems facing our region – water security and water resources management problems.

We are confident that in the issue of joint discussion of the regional water problems at this Conference ample opportunities will open up for better understanding of the current issues, rapprochement of our positions on their settlement, as well as development of effective cooperation.

Being a renewable natural resource, water forms and runs according its own natural laws and ignores national boundaries. However, we perfectly well realize that it is not an endless resource and needs a solicitous attitude, continuous improvement of its quantity and quality management, rational and effective use, safe protection from pollution and exhaustion, development and implementation of the measures aimed to prevent and avoid its harmful impact on environment.

Range of water problems in many regions of the world is becoming the most topical

problem of present days. Water deficit, disastrous floods and inundations, water erosion and salinity of soil, water pollution in many cases is caused by ineffective use and inefficient management of it. The historical records suggest that the one who does not repeat mistakes of others and learns from those will succeed. Hence, we must not repeat mistakes in water resources management issues.

It should be noted that the problems of environment, water security, and related integrated water resources management in Central Asia are one of the priority lines of the policy followed by the Honorable President of Turkmenistan. In particular, concerning this problem the Head of our State spoke the following at the 65th United Nations General Assembly:

"The major problem directly related to environment is use of water resources. Particularly, their rational use in Central Asia serves as one of the determinants that influence the dynamics of the social and economic development of our countries. Turkmenistan thinks the solution to all water related problems should be based on the universally recognized standards of international law taking into consideration the interests of all the countries in the region and with active involvement of the world community represented by the United Nations and other authoritative international organizations".

Water resources are the key factor of the economic activity in Turkmenistan. Surface water sources are, mainly, of transboundary character. The countries located in transboundary river basins are connected through water systems. Any change in the water use by any of the countries will inevitably tell upon the interests of other countries of the same basin. The need for a modern interconnected and coordinated system of transboundary water resources management is driven by nature itself and calls for the establishment and development of the mechanism of cooperation towards integrated approaches.

The Central Asian countries have sufficiently broad experience of collaboration in solving inter-state water relation problems, the positive results of which are acknowledged worldwide.

Cooperation between the Central Asian countries within ICWC for the past 18 years has allowed establishing certain methods, style, and order of collaboration between the countries on the use and management of the Amudarya and Syrdarya rivers water resources. These approaches are unique inasmuch as continuing coordination, planning of actions, adjustment, and allocation of water resources are carried out within the scope of this cooperation.

Nevertheless, the progress of joint efforts and assessments by analysts in the water management field show that there is some inertness and stagnation in the ICWC activity, especially in the improvement of the regional water management policy and strengthening of the legal framework.

It is known that for effective transboundary basin management a new system of national and inter-state standards and rules for water resources use and protection is required along with explicit procedures, economic mechanism, and criteria. Analysis of the situation with region water resources use highlights the issues related to their economical and effective use, because water saving is the only prospect for future development of the region. The increasing needs of the community caused by population growth as well as those of agriculture and industry can be satisfied only through thrifty water consumption, water demand management, and development of a general line aimed at water saving.

Dear participants of the International Conference,

Allow me to wish you fruitful work at the Conference.

Thank you.

#### Shavkat Khamraev, Deputy Minister of Agriculture and Water Resources, Republic of Uzbekistan: «Uzbekistan's Water Sector on the Way to Overcome Destabilizing Factors by Adopting Innovations and International Water Law»

Dear participants of the Conference!

Ladies and Gentlemen!

Let me, on behalf of the large Uzbek water sector's community, welcome the participants and thank the World Water Council for organization of this event.

In the modern context of growing ecological risks and water problems, this Conference and the forthcoming Sixth World Water Forum are extremely relevant and important not only for Uzbekistan but also for all states in Central Asia.

Approaching water deficit raises general concerns all over the world since water is a unique and irreplaceable source of life for every living thing on the Earth. The truth is simple: no water – no life!

Under such conditions, no country has a right to take positions of national egoism since finally this can lead to world-wide disaster. On the contrary, all countries should design and strictly observe the international norms of water equitability and water ethics.

Currently, one fourth of the world's population suffers from water deficit, more than 1 billion of people lack access to clean water and, as forecasted, by 2025, the same quantity of people would live under conditions of "absolute water scarcity". According to the World Water Council, by 2050, about 2/3 of population on our planet will face freshwater deficit, and, thus, as early as now the mankind must take actions to protect ourselves from these fatal risks.

From our water management practices, we agree with such understanding of water security that is evolved by now in preparation for the Second Water Summit of the Asia-Pacific Water Forum (where our sub-region is a party as well), which is to be held in February 2012 in Thailand – one month before the Sixth World Water Forum. This understanding is stated as follows: societies can enjoy water security when they successfully manage their water resources and services to:

- satisfy household water and sanitation needs at the level of end user;
- support productive economies in agriculture and industry;
- develop vibrant, livable cities and towns;
- restore healthy rivers and ecosystems;
- build resilient communities that can adapt to change.

At present, Central Asia and Uzbekistan in particular already experience acute deficit of water resources. With growing population and intensive development of industry, municipal economy and other sectors, water demands are growing day by day.

The national water sector is a complex body of irrigation and drainage systems serving about 4.3 Mha of irrigated land, including more than 180 thousand km of canals (800 and more large ones), 1588 pump stations (8.2 billion kWh of annual capacity), 55 reservoirs with total capacity of 19.8 billion m3, and more than 4100 wells.

Since independence, the national water sector underwent radical changes in Uzbekistan. There was a shift from administrative-territorial to basin approach in water resources management. This enabled more effective, stable, and equitable distribution of water at all levels.

The key for progress in the water sector is wider application of IWRM, where Uzbekistan is a leader as acknowledged in analytical reviews of the World Bank, ADB and other international organizations. Implementation of IWRM not only contributes to higher efficiency of water governance but helps to adopt modern water-conservation technologies, systems of automated control and monitoring of water distribution, establish water monitoring, and improve water use.

Extensive work on diversification of agricultural production has been started since independence. Instead of water-loving crops, such as cotton, rice, and alfalfa, areas under cereals, cucurbits, and other less water-consuming crops were increased. For instance, in the early nineties in the last century about 50% of irrigated area was occupied by cotton, while the rest was used for food crops. Now the share of cotton in irrigated agriculture is approximately 30%, while the rest of area is under cereals, food crops, and forage that are vital for people. As a result, throughout the republic, water diversions have decreased from 64 to 52 billion m3 a year as compared to the eighties.

Particular attention is paid to improvement of irrigated lands in the Republic. Special Fund for Land Reclamation was established and a State Program for Land Improvement was adopted for 2008-2012.

More than 100 M\$ are allocated annually for relevant measures, including construction, re-construction, and rehabilitation of collector-drainage systems. This helped to improve conditions of more than 740 thousand ha of irrigated lands, reduce areas of strongly and medium saline land, and lower water tables. Eventually, this has a positive effect on crop yields and water use per hectare.

In the recent 10 years, with the support of international financial institutions, more than 1 billion dollars were allocated to the water sector for rehabilitation of irrigation and drainage systems, modernization of infrastructure through 20 large investment projects. This has increased performance of irrigation systems, improved conditions of hydraulic structures, and increased controllability and saving of irrigation water.

Uzbekistan is becoming increasingly concerned about growing desires of the upstream countries to pursue a hydropower policy as concerns river regimes – by replacing the required irrigation-environmental regime by the energy one, which is inverted to the nature and human. Unfortunately, this tendency, which leads to artificial floods in winter and increased shortage in summer, increasingly develops, although Toktogul, Nurek, and Kairakkum reservoirs were built at the Soviet Union's expense for multiannual and seasonal flow regulation for irrigation purposes. I particularly stress this – first of all for irrigation purposes.

An illustration of this is the situation of the dry year 2008, when by the beginning of

vegetation on the 1st of April water volume in Nurek reservoir was 5.9 billion m3, while by 1st of September at the end of irrigation period the volume was 9.7 billion m3. During the peak of vegetation in 2008, Prearalie faced acute water deficit, and water was not enough even for animals. Meanwhile, merely in June-July, inflow to Nurek reservoir was 7.2 billion m3, and releases were only 5.0 billion m3. The same situation was observed in the dry years 2000 and 2001.

Example of the current year shows that despite the evidence of low-water level, Nurek reservoir has been emptied till the dead storage capacity, while we have ahead the difficult growing season, with natural and artificially created water deficit.

Thus, we observe the situation, where Nurek waterworks facility is operated to the detriment of vegetation flow and irrigated lands in Uzbekistan and Turkmenistan.

By now, only 2.5 billion m3 of water were left in Kairakkum reservoir. This is 900 Mm3 less than the average annual volume. This complicated water supply to irrigated lands in Tashkent, Syrdarya, and Dzhizak provinces in Uzbekistan and to South Kazakhstan province particularly. It should be underlined that Tajik peasants found themselves in the worse situation since in addition to electricity shortage problems they started to experience water shortage. Much to regret, the guilty is looked for outside rather than inside. Those who are guilty are inside of Tajikistan. Let me cite some confirming evidence – the irrigation and drainage network is in poor conditions and high soil salinization with consequent low crop yields is observed.

We know very well about aggregates of Kairakkum HPP that have low performance and are in poor conditions, embankments and structures show emergency state. Idle discharges of water are increased because of non-optimal regimes. Such regulation of transboundary waters, where reservoirs are emptied to the dead storage – uselessly and harmfully for the region's countries – is unacceptable!

Analysis of operation of Toktogul reservoir shows that until 1990 the mean annual water releases were about 3.1 billion m3 in non-vegetation period and 8.5 billion m3 in vegetation period. Since 2000, winter releases have increased to 8.7 billion m3 on average against 5.3 billion m3 discharged in vegetation period, i.e. the former increased 1.7 times.

In the last year of 2010, given the natural inflow to the reservoir of 16.5 billion m3, water releases were 5.3 billion m3 during the vegetation period or only 32 % of inflow. Despite sufficient volume of water in the Toktogul reservoir – more than 16.5 billion m3 – water releases in June were only **450 Mm3 a**gainst inflow to the reservoir of 4.2 billion m3, i.e. only 11% of the inflow. And this is during vegetation period, where acute water deficit is experienced!

At present, the Toktogul reservoir is filled with water as much as 16.4 billion m3. The inflow is about 1000 m3/s. According to our calculations, under such regime idle discharges from reservoir would be probable in late June. How can we consider these actions as wise in terms of water use efficiency? One should note here a risk of overfilling in the Toktogul reservoir! Of particular concerns are the technical conditions of structures that are operated to the limit, without adequate investments.

As a result, the one-sided actions of the upstream countries in the use of

transboundary waters disturb region's water balance and create artificial water deficit in summer, thus exacerbating the Aral Sea crisis. A number of elementary questions arise in this respect: on what grounds the natural hydrological regime of transboundary river is changed? Why water used for one's own hand is discharged into the territory of other states without prior agreement? Who will compensate damage from artificial floods in winter and drought in summer?

Evidently the international documents developed and adopted by the world's community can give answers to those and other respective questions. As is well known, the main multilateral universal agreements in area of international water law under umbrella of UN are the 1992 Convention on protection and use of transboundary water-courses and international lakes and the 1997 Convention on non-navigational uses of international watercourses.

Uzbekistan, by joining to these Conventions, has shown their respect and adherence to norms and principles of the international water law since the country sees solution of water issues in them, with consideration of interests of all countries in the region. The Conventions consider the interests of both downstream and upstream that can use water resources within their respective territories on the basis of principles of equitable and wise use, and "do not harm".

On the 20th September 2010 during the UN Summit on the Millennium Development Goals, the President of the Republic of Uzbekistan Islam Karimov stressed that «Any reduction in inflow from AmuDarya and SyrDarya disturbs critically the ecological balance, which is subtle as it is, in the whole vast region. In this context, any attempts to implement projects that were designed 30-40 years ago, as long ago as during the Soviet era, for construction of giant dams in the upper reaches of those rivers, moreover taking into account that seismicity of this zone is 8-9 magnitude, may have an irreversible environmental damage and cause the most hazardous anthropogenic catastrophes that we have been witnessing in the recent years».

The tragic incident at the nuclear power plant "Fukushima" shows that the modern science, despite its latest achievements, has failed yet to guarantee safety of large-scale projects against earthquakes and tsunami. The accident at Sayano-Shushensk Hydropower Plant and the accident at an aluminum plant in the Danube basin, with consequent influx of pollutants into the Black Sea are the visual examples of anthropogenic catastrophes as a result of ill-conceived actions.

It is to underline that Uzbekistan comes out for an independent international expertise to be undertaken regarding planned construction of hydropower schemes in the region. This call is dictated by real threats of environmental, anthropogenic, and economic nature. In this context, the position and concerns of the downstream countries are quite explicable and no way are dictated by "momentary political advantages". The lack of understanding or even open disregard of those risks and threats demonstrates one-sided policies that are based on hydro-egoism.

The recently held European conference of the International Network of Basin Organizations showed an excellent experience of the European Water Directive, according to which hydropower construction is subjected to both thorough technological expertise and wider public discussions, with consideration of all possible consequences. Serous warning was voiced during Hydro 2010 Congress in Lisbon in September 2010 demonstrating the dismal lesson of the Sayano-Shushensk catastrophe that should stop the hydropower monopolism. Don't you think that Kambarata, Roghun and other large HPP projects pose the same threat, given their location in the seismic area?

Kambarata 1 and 2, as well as Roghun – their construction raises especial concerns in view of their operation related to changes in natural runoff of transboundary rivers, with consequent colossal socio-economic damages.

Climate change has strong impact on water resources in transboundary sources in the Central Asian countries. More frequently we face floods and droughts. However, instead of keeping long-term regulation, for instance, of Toktogul reservoir to mitigate extremes, commercial interests of energy sector led to increased floods in high-water 2003-2005 and to worse droughts in low-water 2008. Such attitude to the interests of downstream countries not only conflicts with the international water law but disagrees with universal principles of respect for human and nature. Construction of new large HPPs creates a new tool of pressure and a cause of new human and anthropogenic disasters.

Uzbekistan always appeals to cooperation and mutual understanding and directs their efforts towards wise and equitable use of water resources in the Aral Sea basin.

I would like to wish the participants success in achievement of established targets – come to agreement about joint solutions in order to ensure regional water security.

# Dr. Ania Grobicki, Executive Secretary GWP (Sweden) "Neutral Platform of the Global Water Partnership for Capacity Building in Water Sector of the Countries of Caucasus and Central Asia"

Honorable Ministers, distinguished guests, ladies and gentlemen,

On behalf of the Global Water Partnership, thank you for the opportunity to address you today, on the occasion of this illustrious conference hosted by the Government of Uzbekistan. I am very pleased that this Conference, which is an important step in the preparatory process for the 6th World Water Forum, is taking place in Uzbekistan – a country with a long history of water development. In the same way as water scarcity is an urgent day-to-day reality in South Africa, my home country, which has made water security and water development into high-level strategic issues of national concern, Uzbekistan together with many other countries in the world also now faces water scarcity as an inescapable reality. This is in spite of the fact that Central Asia as a whole still has enough available water resources to cover the water demands of the growing economies and populations of the region – even when taking the impacts of climate change into account.

I have noted that Uzbekistan has proved its respect and commitment to the principles of international water legislation, when the country joined the two relevant international conventions, namely "The Convention on the Protection and Use of Transboundary Watercourses and International Lakes" (UN Economic Commission for Europe, 1992) as well as "The UN Convention on the Law of Non-navigational Uses of International Watercourses" (established in 1997). I am aware that Uzbekistan always advocates for cooperation and mutual understanding, and makes every effort to elaborate joint approaches and programmes of water resources development in the Aral Sea basin and Central Asia, reaching a consensus with all interested parties for mutual benefit.

I am convinced that the water policy of Uzbekistan is based on a proper balance among social equity, economic considerations, and also taking account of the need for ecological stability. Here I see a similarity with the vision of the Global Water Partnership for water security, which I am representing here today. In accordance with the GWP's vision, those three "Es" – social equity, economic efficiency and environmental sustainability – are the keys for long-term water development in the global agenda, as well as in the regional agenda.

#### Ladies and Gentlemen!

GWP s vision is for a water secure world – a world where all people have sufficient water for their daily needs, where economies can flourish, and where natural ecosystems continue to provide humanity with vital life-giving services. At the same time a water secure world is a world where people have some protection against the risks of droughts, of floods- protection from the extreme climate events which the IPCC has warned us will become more frequent and more severe with increasing global warming. Water security is an ambitious long-term goal for all countries, which can be approached step-by-step through implementing integrated water resources management, and developing water resources in a harmonious and equitable way, considering the needs of the various economic sectors, and taking into account the views of all the key stakeholders.

To this end, GWP provides the intellectual resources and practical tools underpinning all the various aspects of integrated water resources management – namely the policy environment, the institutional roles and relationships, and the management instruments needed. This knowledge base supports the development of our global action network, working through our 2400 Partner organizations worldwide in 157 countries. Within this network there are now 79 countries which have been accredited as Country Water Partnerships, working to implement IWRM and making use of the GWP s neutral platform for dialogue and the credibility of GWP internationally.

GWP CACENA is an integral part of the global network of GWP, bringing together 8 Country Water Partnerships and 147 Partner organizations in total. Today GWP CACENA as a Regional Water Partnership is a well established regional player within Central Asia and the Caucasus region, helping the region to resolve difficult transboundary water resources issues, as well as helping the countries of the region to develop an Integrated Water Resources Management approach in policies and practices in order to:

- · Determine the vital water requirements of the region and countries
- Support our Partners by linking water requirements with available water resources;
- Support the efforts aimed at introducing integrated water resources management at regional, national, local and basin levels;
- Develop the essential tools for information and sharing of knowledge and experiences in the region.

The concept of providing a neutral platform for dialogue on water issues has grown in significance since GWP CACENA was established in 2002.

#### Ladies and Gentlemen!

I believe that all participants of today's Conference remember the decisions of the Summit of Heads of Countries-Founders of the International Fund for Saving the Aral Sea, which was held on April 28 2009 in Almaty. One of the principal decisions of the State Presidents was the following:

"The Parties assign the Executive Committee of the IFAS together with the Interstate Commission for Water Coordination, the Interstate Commission for Sustainable Development of IFAS, with the involvement of national experts and donors, to develop a Programme of Actions for support of the Aral Sea basin countries for 2011-2015."

This programme is known as the ASBP-3. Later the IFAS Board agreed the objectives and framework of the ASBP-3, which includes four main directions:

1. Integrated Water Resources Management with consideration of the interests of all states

- 2. Environmental issues
- 3. Socio-economic issues

4. Strengthening of institutional and legal mechanisms for water resources management

On behalf of the GWP family, today I would like to convey a proposal to the Executive Committee of IFAS, proposing the involvement of GWP CACENA as a neutral platform to support the capacity development component of the ASBP-3. The idea is to conduct capacity development together with information dissemination as a cross-cutting programme for the four above-mentioned Directions of the ASBP-3.

GWP in the role of a knowledge provider and capacity facilitator finds it essential to establish alliances with other key actors in the region, who would contribute to the abovementioned cross-cutting programmes, including financial support. These important actors and partners include on the one hand, UNDP and UNECE, who already provide assistance to the countries on IWRM policy dialogues and IWRM national planning, and on the other hand, ADB, SDC and USAID, who provide financial and technical assistance to the countries on practical IWRM implementation.

Thank you for attention!

#### Saghit Ibatullin, Chairman of the Executive Committee of the International Fund for Saving the Aral Sea "Strengthening International Cooperation on Transboundary Water in Central Asia»

Dear Participants,

Ladies and Gentlements,

Among the challenges the world is facing climate change poses a serious threat to the whole natural and economic system, including water and land resources. Air temperature growth under lowering or slight increase of precipitation makes the climate more arid.

Most of Central Asia is under arid climatic conditions characterized by scanty precipitation, extremely low humidity, highly intensive evaporation, and excessive solar radiation.

Unfavorable predictions are given in context of the global warming processes. Since 1957 till 2000 water reserves in glaciers decreased by more than 25% and keep declining. According to experts, thousands of small glaciers will disappear, the glacial area will shrink by 20%, and glaciers will loose 25% of their mass by 2025. This, in turn, would reduce substantially the river runoff. Thus, by 2050, water flow would decrease by 10-15% in the Amudarya river and by 6-10% in the Syrdarya river.

Among serious challenges is the rapid population growth in the Central Asian countries that surpasses the world rates. Population growth has caused intensive economic development leading to increased pressure on water resources, water stress, and reduced water supply per capita.

Given the permanent volume of water flow (37.14 km3 in the Syrdarya basin and 78.46 km3 in the Amudarya river in normal year), population growth is leading to increased water shortage in the region. The mean unit water supply is decreasing rapidly in Central Asia. Over the last forty years (1970 – 2010), this value decreased from 6.6 thousand m3/year/person to 2.2 thousand m3/year/person and tends to further decline. Given the current rates of CA population growth, the mean water supply will come to a critical value of less than 1.7 thousand m3/year by 2030 (Fig. 1).

In the same period of time, the irrigated agricultural area increased from 6.50 Mha to 8.4 Mha, and the irrigated area per capita fell from 0.27 ha/person to 0.18 ha/person.

The well-being of the Central Asia depends to a large extent on the balance of nature in the watershed areas – the mountain ecosystems of Pamir, Tien Shan and Altai. The mountain systems intercept moisture from the top atmospheric layers, which is transported by air masses mainly from the Atlantic Ocean, and serve as giant accumulators of fresh water. However, the Central Asian mountains face growing **degradation processes**, **such as deforestation and erosion**, **pollution by wastes and pasture shrinkage**. The forest area has decreased 4-5 times in Central Asia since the mid of the last century. Saxaul and floodplain forests (tugai) were exposed to a particularly extreme anthropogenic load.

Destruction of ecosystems has led to substantial loss of biodiversity. The number of disappeared or endangered animal and plant species is growing. In some cases these processes have become irreversible.



Water Resources Dynamics in the Countries of the Aral Sea Basin, thsd.m³/pers/year

Fig. 1. Water Resources Supply

The international cooperation on transboundary rivers among the Central Asian countries has passed twenty years. This cooperation was founded by the Ministries of Water Resources of the former Central Asian Republics that in September 12, 1991 signed a Statement in which they declared that joint management of water resources would be carried out in accordance with the principles of equality and mutual benefit. An Interstate Coordination Water Commission (ICWC) was established following the Interstate Agreement of 18 February 1992.

the inexorable course of time has proven a need for and an importance of a regional coordinating body like the International Fund for Saving the Aral Sea (IFAS) to support a dialogue, mutual understanding, solve real-world water-related and environmental issues, develop partnerships among the states and their interaction with donors and international organizations. In this context the important Agreement signed by the Heads of five Central Asian States – Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan – 18 years ago on joint actions to overcome consequences of the Aral Sea disaster should be underlined. Thanks to unani-

mous efforts of the Heads of the five Central Asian states, for relatively short time IFAS has managed to consolidate efforts at the interstate level in order to protect population from the effects of the drying sea and normalize the socio-economic situation in the region.

IFAS headed by one of Central Asian Presidents contributes to development of new quality interstate relations in the region, to strengthening regional cooperation, no conflict mechanism for resolving complex issues in water use. Suffice it to say that recently the region repeatedly underwent various natural disasters, such as droughts and floods, earthquakes and landslides that affected critically water use and the economic situation in the region. Considering complexity of the situation, IFAS and its institutions: the Board, Executive Committee, Interstate Commission for Water Coordination (ICWC), Interstate Commission for Sustainable Development (ICSD), take all measures in order to ensure that issues of water distribution, environmental safety, economic development are solved on a priority basis, taking into account interests of each country. This task is of a quite complex character, and it can be solved only on the basis of interstate cooperation.

During the last years IFAS and its structures became a platform for a dialogue among the countries, for development of bilateral and multilateral agreements. A number of agreements on cooperation in area of allocation, joint management, use and protection of regional water resources were signed, two Programs of actions were implemented to provide assistance to the countries in the Aral Sea basin (ASBP), and the third ASBP was developed. In addition, IFAS got the status of observer in the UN General Assembly in December 2008.

Peculiarities of existing relations among the IFAS state-founders

Traditional (formed during centuries):

- Community of history, culture, and traditions.
- Centuries-old good neighborhood relations.
- Rich experience of fruitful cooperation.
- Mutual support and strategic partnership among the countries that meet the basic interests of the people in the region.

Formed over years of cooperation under aegis of IFAS:

- Unanimous efforts to contribute to overcoming consequences of the Aral Sea disaster.
- Strive for mutual aid and support in achieving Millennium Development Goals, for improvement of the socio-economic and ecological situation in the Aral Sea basin.
- Understanding of an importance of countries' efforts on integrated use and protection of water resources, combating of desertification and land degradation while solving problems of the Aral Sea basin.
- Mutual support and strategic partnership among the countries that meet the basic interest of the people in the region.
- Understanding that the development of mutually beneficial cooperation among the Central Asian countries is of great importance for ensuring sustainable development and regional security.

### International conventions and regional agreements as a basis of mutual trust among the countries

The main principles of international law are the criteria of this trust: equitable and reasonable utilization; no-harm rule; obligation to cooperate and notify on planned measures that could have significant impact; information exchange and consultations; and, peaceful dispute settlement.

By present, a well-established though far from being perfect legal base of the international cooperation in transboundary water use and management has been formed in Central Asia. In legal terms, it includes both obligatory instruments and numerous accords and documents of advisory nature, i.e. the so called "soft law" instruments.

In geographic terms, the established system of international legal regulation in transboundary water cooperation is a two-level one, where along with regional agreements of more general character a number of bilateral agreements on concrete water-

courses or scope of cooperation is effective.

The main documents regulating water relations on a global scale include:

- the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992);
- the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (New-York, 1997);
- the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991).

Only Kazakhstan and Uzbekistan in the region joined two of the above Conventions. Thus, these countries clearly demonstrated their positions regarding compliance with the international water law on the basis of trust and commitment to principles stated in those documents.

#### **Regional instruments**

The system of legal regulation of water cooperation in Central Asia is founded on regional and sub-regional (limited number of parties) agreements. The pentalateral 1992 Agreement about cooperation in the area of joint management, use, and protection of water resources in interstate sources (all Central Asian states are the Parties) is in the heart of such agreements.

The regional instruments include the 1993 Agreement on joint actions aimed to address the Aral Sea and Prearalie problems, improve environment and ensure socioeconomic development in the Aral region and the inter-governmental 1998 Agreement about use of water and energy resources in the Syrdarya river basin (four countries – Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan – are the Parties).

Agreements related to water resources topics, such as the 1998 Environmental Cooperation Agreement (Kazakhstan, Kyrgyzstan, Uzbekistan) and the 1996 Agreement on the Use of Fuel and Energy Resources and Water Resources, Construction and Operation of Gas Pipelines in Central Asia (Kazakhstan, Kyrgyzstan, Uzbekistan) can be included, to certain extent, in the group of regional (or, more precisely, sub-regional) instruments as well.

The regulations of institutional nature play a special role among the regional instruments and, in aggregate, create a legal framework and set the legal status, mandate, competence and scope of institutions established for supporting cooperation between the Central Asian countries in area of regional water management and protection. Those include both international treaties, first of all, the inter-governmental pentalateral 1999 Agreement on the status of International Fund for Saving the Aral Sea (IFAS) and its bodies and other acts other than international agreements but nevertheless considered as legally binding.

The Decisions of the Heads of States on establishment or amendment of institutional mechanisms and cooperation-supporting bodies are important as well. Those include the Decision on establishment of the International Fund for Saving the Aral Sea of January 4, 1993 and the Decision on re-organization of the IFAS structure of February 28, 1997. The latter, which is not an international agreement both in terms of form and content, in fact, has changed provisions of earlier effective agreements.

"Institutional" acts include a number of provisions, such as: Provision on IFAS, Provision on Executive Committee of IFAS, Provision on the Interstate Coordination Water Commission of Central Asia (IFAS), Provision on the Interstate Commission for Sustainable Development (ICSD), Provision on the permanent body (Secretariat)of ICWC, Provision on the Scientific-Information Center for water-related issues under ICWC, Provision on SIC ICWC branches in the Aral Sea Basin countries and other similar acts.

The third group of regional instruments setting the general principles and directions of water cooperation in Central Asia is formed by acts of advisory nature adopted occasionally. This category of the so-called soft law includes the 1995 Nukus Declaration of the Central Asian States and International Organizations on Sustainable Development of the Aral Sea Basin, the 1999 Ashkhabad Declaration, the 2002 Dushanbe Declaration, and the 2009 Joint Statement of the Heads of State-founders of IFAS. These documents are very important in context of regional water policy. As a rule, such documents are signed by the Presidents of respective Central Asian countries, and thus they reflect the agreements achieved at the highest political level. The above declarations and statements contain either provisions of political and legal nature or state principles to be followed by the Central Asian countries in their water and energy relations (see for example clause 3 of the Tashkent Declaration of December 28, 2001 about the importance of coordinated and agreed actions in area of rational and mutually beneficial use of water bodies, water and energy resources, and hydraulic structures in Central Asia on the basis of universally recognized international law principles and norms).

A separate group of regional instruments is presented by the Decisions of the Heads of Central Asian states that are obligatory for execution. In this context, the decisions on long-term planning of regional water cooperation are of particular relevance.

#### Prospects for strengthening international cooperation

In order to deal with the present challenges it is necessary to improve the institutional structure of regional and basin organizations. Particular attention should be paid to raising awareness and improving understanding among the key stakeholders of the International water law principles and tools as a basis of regional cooperation, as well as to strengthening and further exploration of a role of cooperation instruments.

The Heads of the Central Asian states, by signing a joint Statement on April 28, 2009, have highlighted the important role of IFAS in coordinating and addressing the fundamental aspects of cooperation between the countries in Central Asia and the donor community, including international financial institutions. They also expressed their commitment to change the institutional structure and contractual and legal framework of IFAS to help improve its performance and to increase its ability to cooperate with financial institutions and donors to implement the Aral Sea related projects and programs. They also confirmed a state commitment to the principles of the integrated water resources management (IWRM).

The statement confirmed that the country-founders of IFAS were interested in the development of mutually acceptable mechanism for the multi-purpose use of water resources and protection of the environment in Central Asia, taking into account the interests of all the states in the region.

It was also decided that EC IFAS jointly with ICWC, ICSD and with the involvement of national experts and donors has to develop **the Program of Actions for 2011-2015 to provide assistance to the countries in the Aral Sea basin (ASBP-3)**. The program of concrete measures is a powerful instrument of international cooperation on transboundary watercourses, taking into account the interests of all states in the region.

The ultimate objective of ASBP-3 is to improve the living conditions of the people in the region. In other words: It is to improve the socio-economic and environmental situation by applying the principles of integrated water resources management, to develop a mutually acceptable mechanism for a multi-purpose use of water resources and to protect the environment in Central Asia taking into account the interests of all the states in the region.

It is supposed that an important place in the international legal regulation of activities related to water protection and use should be taken by the 2006 Framework Convention on Environmental Protection for Sustainable Development in Central Asia, main provisions and principles of which refer to water resources. By present, the Convention was signed by the three states as Kyrgyzstan, Tajikistan, and Turkmenistan and has not entered in force yet.

Given that the issues of transboundary water sharing and management due to their specific character require long and considerate rapprochement of parties at political level, in area of water resources it is advisable to adopt by the states – founders of IFAS the following legal documents issuing from the Plan of measures for implementation of provisions stipulated in the 2009 Statement of the Heads of IFAS State-Founders:

- Draft Agreement between the Governments of Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on Safety of Hydraulic Structures should be fine tuned.
- The Sub-regional Sustainable Development Strategy (SSDS) in CA should be agreed upon by the countries.
- Draft Agreement between the Governments of Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, and Republic of Uzbekistan on the Use of Water and Energy Resources in the Syrdarya River Basin should be fine tuned and signed.

In continuing international cooperation aimed to improve the ecological and socioeconomic situation in the Aral Sea basin, it is important also to establish a single unified Information base (meteorological, hydrological, ecological, etc.) acknowledged by all states in the region, raise awareness of population and interest in water and environmental issues, develop a network of educational and training centers for farmers-water users, etc.

For strengthening of cooperation through the establishment of a single unified information system and improvement of weather, climate, and hydrological services in Central Asia, the World Bank together with the Executive Committee of IFAS, Regional Hydrological Center, and National Hydromets of Central Asia has started developing the **Project on modernization of hydrometeorological services delivery in Central Asia for 2011** – **2016**. The main objective of the project is to improve the interaction between national hydrometeorological services (Hydromets) of the Central Asian states in exchange of data, information and knowledge by restoring their infrastructures and building their capacities.

The project is aimed to reduce the risk of natural disasters, mitigate climate change effects and promote economic development of agriculture, water sector, energy, and transport throughout the region by providing timely and quality hydrometeorological products.

At the regional level, the planned measures will include: technical and institutional strengthening of information collection and exchange between national Hydromets; improving the regional system of education and training in meteorology, hydrology, and climate; and, improving services through better weather forecasts, storm warning, and climate change assessment.

The important objective of the general strategy for strengthening of international cooperation in transboundary waters of Central Asia is to develop jointly measures for balancing the interests of the region's countries in terms of quality and quantity of water supply for economic sectors and the ecosystems' demand ensuring essential conditions for them to adapt to climate change. These ideas should close up with those existing beyond the "water issues" and which are discussed at the top political level. The very general nature of the water sector makes it the critical resource for other interests

It is essential that the strengthening of international water cooperation contributes to the regional food and energy security, as well as to environmental and socio-economic improvement in the region.

#### Brief outline of the speech of Laurent Guye - Regional Director, Kyrgyz Republic & Uzbekistan, Swiss Cooperation Office «Switzerland's Support to Transboundary Water Cooperation in the Middle East and Central Asia»

#### Water, a top priority for the Swiss assistance programmes

- The Swiss Development and Cooperation Agency (SDC) invests annually around 100 million Swiss francs world over in water projects through bilateral and multilateral actions
- The Parliament has recently decided to increase the volume of public aid in order to reach 0,5% of GDP. The extra resources will be allocated to two sectors: water and climate change
- The Swiss Secretariat for Economic Affairs (SECO) has also a strong focus on water in Central Asia, mostly the provision of safe water and sanitation in urban centres.

#### Water security in the Middle East

- Working hypothesis: even in the most strained political context, top level water experts and leaders can acknowledge that water is a precious common good that has to be managed in a concerted way.
- At the request of influent actors in the region, Swiss and Swedish governments co-financed the project « Water Security in the Middle East »
- Study encompassing 7 countries/territories: Israel, Palestinian Territories, Jordan, Lebanon, Syria, Iraq and Turkey.

#### The Blue Peace

- First output of the study: book named « The Blue Peace: Rethinking Middle East Water »
- Released in Geneva in February 2011 by the President of the Swiss Confederation
- Innovative approach to engage leaders from all branches of the society in harnessing collaborative solutions for sustainable regional water management

#### **Depleting River Flows in the ME**

Depleting River Flows (From SFG, The Blue Peace, 2011)

The river flows in Turkey, Syria, Iraq, Lebanon and Jordan have deleted by a range of 50 to 90 percent from 1960 to 2010.

See below the example of the rivers Yarmouk and Jordan. The impact is most strongly felt in the lean month.



#### The Blue Peace: an action plan

Relations at political level are extremely difficult, but there are mutual recognition and good professional relations among water experts and managers in the region. This made it possible to identify a set of concrete recommendations constituting a consensual and realistic roadmap for the management of shared water resources.

The BLUE PEACE: Summary of Recommendations			
Short Term Intra Circle	Medium Term Intra Circle	Long Term Intra Circle	Long Term Inter Circle
Cooperation Council for Water Resources in the Middle East Decentralised Water Management in the Palestine Territories	Integrated River Basin Management in selected rivers	Joint Desalination Plants	Turkish National Water for Jordan Valley
Confidence Building Initiatives between Israel and the PA Demand Management	Cooperation in Euphrates-Tigris Basin	Red-Dead Sea Canal	Lake Kinneret (Tiberias) as R e g i o n a l Commons

#### The Blue Peace: next steps

- Comprehensive assessment of the conditions under which a « Cooperation Council for Water Resources in the Middle East » could be established
- SDC will finance concrete activities (equipments + TA) in the fields of water productivity, water demand management, groundwater mgt, etc.
- Partnership with State agencies, academic institutions, agricultural cooperatives
- Strengthening networking within the region.

#### Swiss support for Water Management in Central Asia

- Switzerland active in water management in CA since 2000 with cumulative commitments in the order of 50 million USD
- Focus on regional approaches:
- Testing similar approaches in three countries and promoting exchanges of experiences
- Creating a regional information system & data base for water management
- Working in close partnership with regional water coordination institutions: SIC-ICWC and IFAS

#### Three axes of intervention

- Data collection and exchange for improved water management
- Support to National Hydro-meteorological Services
- Central Asia Regional Water Information Base (CAREWIB)
- Integrated Water Resources Management
- IWRM Ferghana Valley: improving effectiveness, reliability and equity of water delivery to the farm gate by introducing demand oriented and transparent water allocation mechanisms
- Canal Automation: equitable and transparent water allocation through stabilizing and monitoring water flows in canals
- Water Productivity Improvement at plot level: on-plot water management to minimize water consumption

- Rural Enterprises Support Project II: up-scaling IWRM approach with the World Bank
- Water Resources Management Support Project: up-scaling IWRM approach with the Asian Development Bank (to be signed shortly)
- In the case of the last two projects, SDC supports « software » components (training, capacity building) whereas the multilateral development banks fund the « hardware » components (canal rehabilitation, roads, etc.)
- Central Asia Energy Water Programme: providing seed funds to the World Bank to launch one of the components: « Energy Water Modelling »
- Aim: « establish a common platform for analysis, accepted by and useful to all countries to support both collective and national dialogue on regionally significant initiatives »

#### **Tentative conclusions**

- Potential for significant water saving (at least 20%); the combined CA, WPI and IWRM approach makes economic sense !
- Water governance dimension is crucial: for effective water management, bottom up consultation mechanisms must complement top down planning.
- Time to scale-up: IWRM approach has demonstrated its benefits on a significant scale. It is time now for the governments of the region to define a strategy to implement these principles nation-wide.
- IWRM and WUAs sustainability will depend to a large extent on the broader agricultural policy framework (state order and procurement system).
- The data bases on which decisions are made still need improvement, both in terms of data gathering (completing Hydromet projects) and accessibility for authorized users.
- There is room for improvement in the institutional framework for regional water management cooperation. In particular, the system of rotating seat of interstate commissions and executive committees leads to inefficiencies.
- Promoting regional approaches and programmes is not getting any easier in Central Asia, but we have to try harder! The good collaboration among the six main donors in the sector and region is an asset.

## Welcome Speech of Nino Chkhobadze, Member of the Board of REC of Caucasus, Co-Chairman of the Greens Movement of Georgia / Friends of the Earth

Dear Chairman,

Ladies and Gentlemen,

Dear colleagues!

Let me welcome the conference participants on behalf of the public water associations, the South Caucasus countries working in the water resources protection and management.

Problems faced by the South Caucasus countries, are rather similar to the problems of Central Asian countries. In the first place it is theclimate change consequences, rapid demographic changes, increasing food prices, inadequate attention to water supply and sanitation, especially to sewage systems.

Solving these problems is a priority task for the countries of our region.

Considerable advantage of Central Asian countries is structures and mechanisms of regional cooperation around water which countries were able to create. Maybe they are not sufficiently mature and effective, but they exist and the way to water security is because of them shorter than in the Caucasus.

Even in the late 20th century it was believed that water is a renewable resource, and it will never disappear, but now, in the beginning 21 century fresh water began to disappear and it is believed that it is not able to recover and global climate change affects on fresh water ecosystems very strongly.

Today, everyone in the world should feel responsibility for the water.

On the one hand, a fair and reasonable access to water for everyone is an ethical, moral and legal rights. On the other hand, each of us is a water user, and must use water efficiently and carefully, protecting it from contamination.

I want to wish all of us - the conference participants - the successful work and harmony in a collaborative efforts to improve water management for sustainable development, as well as to find consensus on the mechanisms and tools that can be used in this process in the nearest future.

## S. Zhigarev, Chairman of OAO "Gidroproyekt", Uzbekistan: «Issues of Ensuring Safety of Hydraulic Structures during their Designing, Construction, and Operation»

#### Current status of safety of large hydraulic structures in Uzbekistan

Uzbekistan is the only republic in Central Asia, which adopted the Law on safety of hydraulic structures. An executive supervisory body – State Inspection "Gosvodkhoznadzor" – was established under this law. There is a Council of experts under umbrella of SI "Gosvodkhoznadzor" consisting of responsible representatives of ministries and departments that control hydraulic structures. Besides, the Council includes representatives of main design institutions, UzHydromet, Ministry of Emergency, institutes of the Uzbek Academy of Sciences that undertake research on hydraulic structures, State Committee for Geology and Mineral resources, etc.

According to the Law, safety declarations regarding current and planned hydraulic structures should be drawn up and approved by the Council. Such safety declaration is approved for a period from 3 to 5 years, depending on conditions of hydraulic structure. A plan of measures to ensure further safe operation of structures forms an integral part of protocols within the framework of approval process. If measures stipulated in the protocol are not implemented, the safety declaration will not be approved for the next period of operation.

### Implemented measures and achievements in Uzbekistan regarding risk management and water security

Once in five years, GAK "Uzbekenergy" undertakes centralized inspection of all operating hydraulic structures and machinery that are the part of waterfront of the cascade of HPPs. The inspection commission approved by Uzbekenergy is comprised of respective services of Uzbekenergy, operating organization, Gosvodkhoznadzor, Ministry of Emergency, and main design institution. A report is drawn up based on inspection results and to be agreed among these organizations approved by the Uzbekenergy's leadership.

According to a special adopted program, with account of construction sturdiness class and risk degree of hydraulic structures, the cascade's services and main design institution conduct regular monitoring of structures using measuring devices, geodetic methods as regards subsidence and deviations in marks, ground, and abutments. From the analysis of observation data, the OAO "Gidroproyekt" prepares quarter, semi-annual, and final annual reports. A seismic station located in the site of Charvak HPP is operated to regularly monitor seismic situation.

As for structures under responsibility of the Ministry of Agriculture and Water Resources, the monitoring is conducted by Engineering Center, which was established under Gosvodkhoznadzor.

After the accident at the Sayano-Shushensk HPP, the large-scale inspections of hydraulic structures, machinery, rescue services, and warning systems were undertaken.

In 2009-2010, according to Decrees №№ PP-1072, № 197 and an order of GAK "Uzbekenergy", commissions were established for inspection of primary and auxiliary processing equipment at operating HPPs in order to identify their conditions and remaining life for modernization purposes. Based on commissions' inspection reports, concept notes for modernization of operating HPPs were drawn up and taken as a basis in developing pre-feasibility studies that were included into the modernization program for

#### 2011-2015.

In addition, according to Decree 72 of the Uzbekistan's Cabinet of Ministers of March 15, 2011, technical audit of equipment and technologies is undertaken at operating HPPs for further development of industrial capacity of the Republic through early adoption of up-to-date and successfully approbated global technologies.

### Current problems in ensuring safety of large hydraulic structure in the region and their solution

Special commissions were established in the former USSR in order to assess safety of especially hazardous hydropower schemes. These commissions were headed by representatives of Union's ministries and comprised of leading design institutions and specialized research institutes on hydraulic engineering, irrespective of their republican subordination.

Currently, inspection of particularly complex hydroschemes located in transboundary watercourses is narrow departmental in a range of region's countries. In order to save funds for inspections and monitoring of structures, the above measures are undertaken by representatives of those departments that are responsible for these structures. Design and research institutions of relevant profile are mainly absent in many Republics, while hiring of foreign organizations requires substantial currency resources.

It is proposed to involve international organizations with respective experience and competence, perhaps under umbrella of UN, in inspection of especially hazardous hydropower schemes located in transboundary watercourses.

#### Impact of ambitions hydropower projects on safety of region's countries

Design and construction of new especially complex and hazardous hydropower schemes on transboundary watercourses raise considerable concerns on the following reasons:

It is strongly prohibited in the Republic of Uzbekistan to construct structures using old designs. I consider it necessary to put this rule as a basis at the international level for all Central Asian states.

The Rogun HPP is constructed in area of Ilyak-Vakhsh fracture. This area falls into the category of earthquake-prone zones. Under certain conditions, implementation of this project may cause more than 9-point earthquake, with catastrophic consequences, particularly if the earthquake focus is not to deep.

In terms of seismotectonic situation, the location of Rogun HPP was ill-selected. Ill-conceived and risky decision may result in the future in substantial material losses and human deaths.

A steep formation of rock salt within the zone of active seepage flow in the base of dam causes complication.

The unique, in terms of size, underground turbine room is developed at the height of 35 m, given that the full design height is 78 m. The observed convergence of the walls of turbine room exceeds substantially the estimated figures in earlier approved design and is 300-320 mm in sandstone and 450-470 mm in siltstone and will increase with further underground digging.

Fracture № 35 shows tectonic movements that could lead to disturbance of rigid fastening of tunnels. This is the case of tunnels for structural-operational spillways of 1st and 2nd tiers, in which, as media and Interned inform, repair and reconstruction has been undertaken already, before completion of the World Bank's independent expertise.

Since mudflow protection structures are not ready, there is a risk of blockage by mud stream along the Vakhsh channel, occurrence of backwater in the spillways of 1st and 2nd tiers, reduction of their flow capacities, with consequent overflow through earth check structures and their destruction.

Starting from earliest designs, the construction site for main structures of the Rogun HPP has been always considered as very complex one in terms of relief geomorphology, occurrence of various exogenous processes, high seismicity with new active tectonic processes.

While going further, including recent design and research studies, we have not got positive answer on the most important, principal questions: whether reliability and safety of the HPP's main structures will be ensured if structural solutions of the technical design are implemented?

Given the intention to speed up maximally the planned construction stages, one may assume that a range of costly and long-term work items within construction process would be simply excluded or delayed for the far future and that quality of work would not be assured. This may increase probability of accidents during both intermediate construction stages and operation. This is proved by information of the former chief design engineer of Rogun HPP Mr. Osadchiy L.G., from which follows that authors of current concept of Rogun HPP completion decided to exclude measures related to protection from washout of salt layer. It is necessary to remind that this issue received particular attention during numerous expert assessments of the old design.

The recent developments in Japan only prove that even very high level of technologies in design and research of high-risky structures does not prevent from emergencies with gravest consequences not only for the country where given structure is located but also for neighboring countries. We all witnessed destructions caused by Japanese 10-meter tsunami. In case of accident at the Rogun HPP followed by washout of dam, the height of wave, which will flow downstream of Vakhsh, would be no less than 100 meters above the ground. Such accident would be much more destructive than that in Japan.

The breach of dam will result in unprecedented catastrophe for the whole Central Asia and, first, for Tajikistan. It is predicted from calculations of break-wave that in this case huge amount of water will flow downstream at a speed of 130 m/s towards Nurek HPP. The dam of Nurek HPP would be completely destructed and the city of Nurek would be covered with great 280 m wave advancing at 86 meters a second. Similarly, other HPPs and waterworks of the Vakhsh cascade would be destructed and such cities as Saban, Kurgantyube, and almost whole Rumiy would be flooded. Following these cities that would be first damaged, this wave would flood tens of other cities and settlements in Tajikistan, Uzbekistan, and Turkmenistan.

In the context of the above-mentioned, we keep insisting on stopping construction of this structure and undertaking independent international expertise of the feasibility study.

#### Brief outline of the speech by Bolot Moldobekov Central-Asian Institute of Applied Geosciences (CAIAG) "Climate Change in Central Asia (Case Study of Kyrgyzstan) and Conservation of the Runoff Formation Zone" (Kyrgyz Republic)

Climate change has always occurred on Earth and the recent period is no exception to this rule. The changes in climatic parameters (such as temperature) that one observes, show the presence of irregular periodicity in instrumental series of observations ranging from daily up to several decades with evidence of even longer secular changes. In other words, climate change is fundamentally nonlinear in character, and it makes us conclude that any climatic trend will inevitably be replaced by opposite trend. The recent surface air temperature uptrend will hereby give way to decline as evidenced by the results of paleoclimatic studies in Kyrgyzstan.

Undoubtedly, it is possible to impose anthropogenic factors on natural tendencies by strengthening or weakening the latter. However, anthropogenic factors are not as critical as natural ones, since they are basically controllable. The possibility of such control over natural factors is quite problematic, so the main strategy for mankind's survival under all climate change scenarios would be an optimal rational adaptation to changing conditions of existence based on fairly precise knowledge about natural system and the use of advanced technology.

The problem of obtaining new and more accurate data is solved by instrumental observations of natural, in particular the climate system. This issue in Kyrgyzstan is addressed by CAIAG in partnership with the German Research Center for Geosciences (GFZ Potsdam) by creating a monitoring network of meteorological, hydrological, glaciological stations within Central Asian Water (CAW) and Global Change Observatory Central Asia (GCO CA) projects, as well as during implementation of other research projects in the field studies.

It is obvious that these observations do not exhaust all elements of the hydrosphere, while the full system study requires examining the groundwater, substantial reserves of which are concentrated in the intermountain basins.

Conservation of the runoff formation zone in terms of any climate change trends is almost impossible, whereas application of rational methods of its practical use (resulting in minimal damage to the entire Central Asian region) based on more accurate knowledge of climatic processes in this zone is another matter. In this aspect, it is obvious that optimum alternative in terms of such element of water system as runoff is maximum regulation of runoff by building reservoirs.

In this connection the best place for reservoirs is mountain regions, where there is possibility of providing the maximum capacity under the minimum area and minimum environmental and land resources losses, respectively. In this case during high-water period floods can be mitigated, whereas during low-water period accumulated water storage might be used for the benefits of the entire Central Asian region.

#### Professor Jacques Barrat Member of the Board of Directors of the Geographical Society Member of the Academy of Overseas Science: "The geopolitics of water in Uzbekistan: the eyes of a French geographer"

#### Dear Participants,

First, it is clear that in Uzbekistan, water is scarce and threatened.

Water resources naturally poorly distributed across the country are now rare. They come from two major river basins formed by the Amu Darya and Syr Darya, the two largest rivers in Central Asia that flow both in the Aral Sea. However, Uzbekistan is a Mesopotamia which has long set higher population densities than in the rest of Central Asia, although the percentage of useful land to

agriculture does not exceed 10%.

The weakness of water resources explains that less than 10% of the land is cultivable Uzbekistan. Worse than that, the Aral Sea, fourth inland sea of the world has seen since the early 1960s, its volume of water divided by ten, and will

#### reduce its size by 75%.

It is true that by 1988, the USSR had declared "disaster areas" adjacent territories that sea. Now, some provide its complete disappearance in 2025. But conversely, and fortunately, it seems according to some experts that the volume of the "small sea" has re-grown since 2007 and this faster than it had been expected.

**Secondly**, Uzbekistan, water is now a **national and international issue**. The major cause of degradation of water resources in Uzbekistan first proceeds of irrigation and watering the fields. The decrease of water resources is in fact due mainly to the use somewhat responsible for the very people who irrigate their fields too or let it evaporate in vain due to lack of adequate maintenance of irrigation channels .Moreover, in rural areas, water is contaminated by the poor condition of drainage channels and waste from agriculture as livestock.

But water is also an international issue. The President of the Republic of Uzbekistan Islam Karimov on the occasion of the 48th and 50th sessions of the UN General Assembly stated: "*The Aral crisis is one of the largest humanitarian disaster in the history of humanity, endangering the lives of tens of millions of people inhabiting the basin of the Aral Sea*". Generally, all the water resources of Central Asian rivers are distributed within the "patterns of use of water resources in river basins Syr Darya and Amu Darya

Fortunately, the Central Asian states have agreed to build the sharing of water resources on the principle that all water resources in the basin of the Aral Sea are common and must be divided among States from a coordinated policy. This is especially critical, given that the Amu Darya and Syr Darya can not ensure that 70% of average annual requirements. This, of course, complicates the establishment of cooperative efforts to solve the problems of rational use of resources.

Thus, all decisions regarding the use of rivers, including hydro-energy buildings, should not be detrimental to ecology and harm the interests of people in downstream countries. To cite one example, the downstream areas of the Syr Darya and Amu Darya have now more than seven million people. Internationallaw must be applied. This is why the President of the Republic of Uzbekistan had made 16 August 2007 under the Council of Heads of States members of the Organization of the Shanghai Cooperation, the following proposals:

The use of water resources of transboundary rivers in Central Asia must necessarily take into account respect for the interests of 50 million people living in the region.

No action taken on these transboundary rivers must not have negative consequences on the stability of water resources in the region.

The UN Convention on the Protection and Use of Transboundary Watercourses and International Lakes, dated March 17, 1992, adopted by the General Assembly on May 21, 1997, must be the basis for building all systems of joint use of transboundary rivers.

It is essential to ensure that construction of new hydroelectric plants will not have serious

ecological consequences and will not violate the natural balance of the use of watercourse by all states located along these rivers.

In case of damage, all appropriate measures shall be taken for its immediate cessation and compensation measures should be taken.

For all these reasons, the feasibility studies of new water facilities in the basins of transboundary rivers must undergo mandatory objective expertise on the part of international audit absolutely neutral. Investor countries, like the World Bank and Asian Development Bank, should not forget the mandatory nature of these conditions.

**Thirdly,** these recommendations dictated by the simple reason that unfortunately are not unnecessary. Indeed, some neighbouring countries of Uzbekistan did not give up some huge dam projects, developed there nearly 40 years, in the midst of Soviet deception. Their achievements would generate ecological nightmares, not to mention that whole area is often subjected to very high earthquake on the Ricliter scale.

The dangers inherent in the construction of power plants are indeed considerable (Honorary director of the Institute of Seismology of the Academy of Sciences of Tajikistan. Sabit Negmatullaev predicts powerful earthquakes in the Pnnur Mountainsin Tajikistan (Gmdikushskom) over the next 10 years). Most hydraulic and hydroelectric projects currently under consideration in Central Asia should be completely overhauled if not abandoned because they are mostly just as the former Soviet ideological follies as new races for the benefit certainly more contemporary. As each other can in no way justify the killing of an ecological whole region or the endangerment of hundreds of thousands of human beings for the sole satisfaction of being able to sacrifice in the myth of growth at any price.

To take an example, the proposed construction of the Rogun hydroelectric power from its inception has presented a dimension not only **problematic** but also **emblematic**.

**Problematic** insofar as the former Soviet great project that dates back nearly decades is obviously carrying huge risks.

First, its implementation will have catastrophic consequences on the flow of the Amu Darya even as the agricultural potential of the territories bordering the river are already heavily encumbered by aridity and confidentiality of climate.

Then, the whole ecological balance of the region which is likely to be challenged with even more catastrophic consequences, that the environment of the sub-region has been ballered and weakened in recent decades by the drastic shrinking of the Aral Sea. We know the pernicious role played by the establishment of grandiose water management policies designed by ideologues who believed that man could easily dominate any type of environment.

Finally, who could ignore that the settlement area of this plant is subject to earthquakes both strong and recurring? We can not imagine the economic and human damage could occur if new seismic activity resumed when we know they are common in this area. At this level, the implementation of the hydropower plant would fall Rogun simply the suicidal. The recent events in Japan are a clear proof.

**Emblematic**, insofar serious experts of the largest international organizations have had the courage to tell their concerns about the implementation of this program. It is also worth noting that some western technicians of private companies had shown the same courage in daring to talk about the dangerousness of the project while their companies had any financial interest in seeing it takes shape.

In conclusion, a very general way, just as many environmental disasters have come to remind officials that modern societies should spare the planet instead of plunder or destroy, international institutions as well as the world opinion can not but condemn projects harmful and dangerous to all the countries of Central Asia. No country can arrogate the right to receive water, this natural resource essential to life at the expense of its neighbours. Similarly, no country has the right to endanger the population, those of its neighbours under the pretext of making grandiose buildings, but dangerous because of unpredictable and difficult to measure whims of nature. The geopolitics of water in Uzbekistan is an issue. It is also the geopolitics of danger.

#### Speech of B. Alikhanov, Chair of the Executive Committee of the Central Council (Kengash) of the Ecological Movement of Uzbekistan «Ecological Problems and Challenges Within the Context of Ensuring Water Security»

At the High-Level Plenary Meeting of the United Nations General Assembly on the Millennium Development Goals in September 2010, the President of the Republic of Uzbekistan Islam Karimov noted that in view of continued shrinking of the Aral Sea and humanitarian disaster around it, the most important objective to date is conservation of the environmental and biological fund in Priaralie, mitigation of harmful impact of the Aral Sea disaster on environment and, the most important, on lives of hundreds of thousands and millions of the people there. The Priaralie zone receives water from the two main rivers – Amudarya and Syrdarya; any reduction in inflow from these rivers disturbs critically the ecological balance, which is subtle as it is, in the whole vast region.

Recent developments convince on topicality of the warning by the Leader of our country.

The Priaralie disaster is a consequence of the ill-considered policy of the former Soviet regime concerning the regulation of natural flow in the Central Asian rivers -Amudarya and Syrdarya - in connection with the construction of huge water-engineering systems in the upper reaches of transboundary rivers in the 1970-1980s.

Under the conditions of global climate change, the tendency of increasing frequency of natural disasters, which in combination with human activity cause anthropogenic disasters of ever unprecedented scale, has become an indisputable fact.

Given this, the intention of the countries located upstream the main rivers of the region to use transboundary water resources in violation of adopted international rules gives rise to great concerns.

The project of Roghun Hydropower Plant with a dam 340 meters high, which has no parallel worldwide, is such an example. Construction of this structure would aggravate the already difficult environmental situation in the Central Asian region and would result in many socio-ecological and humanitarian disasters.

It is appropriate to recall that in August 2009 the whole world community was shaken by the technogenic accident at the largest hydraulic structure in Russia - the Sayano-Shushensk Hydropower Plant, which anew placed the issue of the appropriateness of building such huge structures on large watercourses and the risks related to their operation on the agenda.

The accident showed once again that it is impossible to guarantee the security of such gigantic facilities and forecast their future behavior. Moreover, the technological backwardness of the projects worked out as early as during the Soviet times is doubtless. Environmental risks related to construction and operation of such structures force us to over and over raise the question of their reasonability, when alternative ways to solve the energy problems exist.

Taking into consideration these circumstances, the World Bank announced a

tender for feasibility study and environmental impact assessment of the Rogun Hydropower Plant project. Eminent companies and firms took part in that tender.

We assume that this expert assessment will be objective, transparent, comply with international law norms, and involve all concerned parties.

At the same time, according to a Tajikistan's official, technical parameters of the Roghun Hydropower Plant will not be changed even after the completion of the expert assessment: in other words, the project will keep all parameters of the dam height that cause concerns. This means that the Tajikistan official in fact a priori rejects the conclusions of the international expert examination, thereby casting doubt on its competence and the interests of the neighboring countries and of international community, which have insisted on the performance of objective and comprehensive analysis of the hydropower plant project on transboundary watercourse.

It is necessary to emphasize that the matter is not the water resources in the region countries in general, but the use of transboundary rivers and watercourses, i.e. resources of the rivers that historically served the vital needs of the countries located in the river basins.

Indeed, these problems cannot be "solved single-handed". Only all countries in the Aral Sea must together decide what and where can be built. Currently, this implies the interests of the whole population of Central Asia. The rivers are not the property of a single state. Hence, all decisions on the use of these rivers' flows, including those related to building hydropower facilities, must consider these interests without fail.

Otherwise, this may still more aggravate the situation in water supply in the lower reaches of the Amudarya and Syrdarya rivers and the ecological disaster of the Aral Sea.

The recent catastrophe in Japan revealed vulnerability of population against natural and anthropogenic disasters even in such technologically advanced country. Huge destructions, when the whole human settlements that were in the zone of the strong earthquake and consequent tsunami have vanished from the face of the earth, demonstrated what tragic consequences the natural disasters can bring. The lessons of that tragedy should teach us take into consideration the risks of potential natural and anthropogenic disasters and take preventive measures to reduce these risks rather than create new threats for their occurrence.

The questions raised by us are of vital importance for population in Uzbekistan and the whole region. The actions related to recommencement of the Roghun Hydropower Plant have caused a well-grounded anxiety of the country's society which supports clear position of Uzbekistan on transboundary river use.

Given the above-stated, we adhere to well-defined principles, namely:

1. The use of water resources of transboundary rivers in Central Asia must necessarily take into account the interests of 50 million people living the region.

2. No action taken on these transboundary rivers must have negative consequences on stability of existing ecological and water balance in the region. 3. The effective international legal framework on water use and environment must be the basis for building efficient system of joint use of transboundary rivers.

4. The right of any of the parties for implementation of projects related to use of transboundary rivers, including construction of hydraulic structures, shall not be rejected given that it is subjected to thorough, independent technical, economic and environmental expert assessment on the basis of openness and full awareness of all parties concerned.

5. Projects must be implemented on the basis of constructive approach and trade-offs, when the interests of other concerned countries are not infringed upon and the following two indispensable conditions are assured: a) avoid reduction of flow in watercourse for downstream countries; b) avoid breach of the ecological balance and security in the region.

We are certain that only joint efforts will enable preventing the disruption of the ecological and water balance in Central Asia, contribute not only to guaranteed and sustainable water supply for population, but also to environmental safety in the region.



## **ROUND-TABLES REPORTS**

## Report on the results of the round-table «GUARANTEEING WATER FOR FUTURE GENERATIONS»

#### Moderators: V.A. Dukhovny – WWC governor, Uzbekistan, N.B. Prokhorova – Russian Research Institute of Integrated Management and Protection of Water Resources, Russia

Four key reports were presented during the round-table:

**Sorokin A.G.** – SIC ICWC, who presented results of the prospective modeling of water availability in Central Asia under various combinations of climatic, socio-economic, water management, and agricultural scenarios and a set of potential measures for mitigation of future water deficit.

Janusz Kindler – Prof. of Warsaw University of Technology, former coordinator of the Regional Water Strategy development for Central Asia under support of the World Bank, who supported results and directions proposed by the former reporter.

**Abdullayev U.V.** – UzGIP – in his report supported the previous presentations and focused on water availability in the Syrdarya river basin, where developed or planned reservoirs of large hydroschemes oriented to hydropower regimes may pose serious threats.

**Prof. Jacques Barrat** – France – focused on correctness of the position of Uzbekistan regarding protection of country's interests in water supply by means of international water law and underlined that only such lay may serve as the basis for further development.



The following participants also reported: Nino Chkhobadze – representative of Global Water Partnership for Caucasus and Central Asia, Yu. Kamalov – Chairman of the Aral and Amudarya Protection Union, Yekaterina Sakhvaeva – representative of the Committee for Water Resources, Kyrgyz Republic, T. Khudaiberdiyev – Director of Tashkent Irrigation Institute, Jun Dae-Wan – Ambassador of South Korea in the Republic Uzbekistan, and others.

During debates, S.Rakhimov, Deputy Minister, Tajikistan, emphasized that national strategies should be oriented to the use of water and energy resources on the basis of comprehensive cooperation among riparian countries and took notice of development of economic bases for such cooperation. In addition, the regional water management institutions need to be enhanced and the legal framework of water relations among the countries should be improved.

As a whole, main points of the round-table discussion were as follows:

1. The current situation related to the complex system of water supply, with its numerous management levels and multiple influences on resources makes use of water and meeting of user's demands unsustainable.

2. In order to guarantee sustainability, water rights, both quantitative and qualitative, should be determined at each hierarchical level and mechanisms of their observance and monitoring should be established, including mechanisms of monitoring of flow fluctuations, and special focus should be placed on rights of nature for water.

3. The target set in the Concept Note is relevant for the states that develop their water strategies in order to ensure water for present and future generations. Predicted deficit in the region is not fatal. Lines of activity voiced in the presentations indicate to potential solutions of given problem.

This target consists of two sub-targets:

3(a) Sustainability of water supply in transboundary terms, which should be based on the following fundamental principles:

- Strict observance of the international water law;
- Development of mutual trust mechanism;
- Elaboration and agreeing upon the Regional water strategy;
- Development of clear obligations both regarding water distribution and water release regimes, water conservation and development.

Transformation of flow regulation structures (reservoirs) into the tools of economic and political pressures is unacceptable.

The right of possession, use, and disposal of natural water bodies at the national level for upstream riparians should not conflict with similar rights of downstream riparians.

3(b) Ensure water rights at national level through the National plans for improvement of water resources management in order to establish guaranteed water supply for the nature and all economic sectors. The main direction here should be implementation and development of the integrated water resources management.
4. Development of a system that ensures water security and incorporation of relevant norms characterizing it in the water management system will guarantee access to water for future generation.

5. Strengthening of manpower development at all levels, restoration of prestigiousness of the sector, and creation of conditions to prevent from outflow of professional staff are the essential conditions of water supply.

6. Modeling is an effective tool for long-term forecasting. This requires development of information base containing statistical data that reflect changes in environmental quality under anthropogenic impact.

7. Independent expertise of hydraulic construction projects in transboundary waters is needed.

8. Scientific grounding of management decisions in area of water regulation, use, and protection and informatization of this activity is the basis for sustainable development of water supply, for modernization of the water sector and land reclamation.

9. It is necessary to improve legislative and legal frameworks of regional management systems.

## Report on the results of the round-table «ENSURING SUSTAINABLE DRINKING WATER SUPPLY »

### Moderators: A.Orman, Chairman of the Committee for Water Resources, Kazakhstan, U.Khalmukhamedov, Director of Uzkommunkhizmat

Three reports were presented at the round-table:

«State of drinking water supply sector in the Central Asian countries and its development prospects» by V.V. Syundyukov (Association of Water Supply and Water Disposal Enterprises of the Republic of Kazakhstan «Kazakhstan Su Arnasy»);

«Regional Rural Water Supply and Sanitation Projects in Uzbekistan and Tajikistan» by Normand O. (Switzerland, SDC, Project manager);

«Current water management and environmental problems of the transboundary Zarafshan river» by Kulmatov R. (Ecological Movement of Uzbekistan).

All participants of the round-table were actively involved in discussion.

During discussion of the above reports a number of issues related to drinking water supply and water security in Central Asia were identified.

Based on discussion results, the participants gave the following recommendations:

1. Improve regulatory and legal frameworks, including adoption of the Law about water use and water disposal.

2. When addressing issues of drinking water supply and sanitation, the next priorities should be followed:

system approach to inspection of systems, justification of investments, designing, construction, and effective operation, as well as inseparability of water supply and sanitation systems in forecasting, with special focus on resource conservation;

further raising of investment attractiveness of the water supply and sanitation sector;

maximal involvement of the private sector and adoption of public-private partnerships (PPP);

provision of preferential credits for water supply and sanitation investment projects;

ensuring of full accounting of drinking water use.

3. Set tariffs to cover reasonable costs and ensure cost-effectiveness of water supply and sanitation enterprises.

4. Develop portals to provide access for population in the countries to data on drinking water supply and on water supply and sanitation networks.

5. Conduct re-evaluation of groundwater reserves in the Central Asian countries, with production of recommendations on amounts of groundwater use.

6. Establish the system of monitoring over water supply and sanitation facilities.



7. Enhance activities on education and training in area of water supply and sanitation.

8. Create a platform for demonstration of best drinking water supply and sanitation projects implemented in Central Asian countries and for sharing of experience on regular basis.

### Report on the results of the round-table «INTERNATIONAL COOPERATION ON TRANSBOUNDARY WATER MANAGEMENT ON THE BASIS OF INTERNATIONAL WATER CONVENTIONS »

### Moderators: F. Loures, World Wildlife Fund, Sh. Khamraev, Deputy Minister of Agriculture and Water Resources (Uzbekistan), S.R. Ibatullin, ECIFAS (Kazakhstan)

Mrs. F.Loures opened this meeting. She informed the participants about Conventions 1992 and 1997, invited all Central Asian countries to become parties of these Conventions, and explained advantages and importance of the Conventions.

Three key reports were presented at the round-table:

#### 1. Ziganshina D.R. – (Dundee University, Scotland)

She informed that in order that the 1997 Convention to become effective, besides already joined 24 countries additional 11 countries should join it. She also spoke about surface and ground waters, types of irrigation, and equitable and reasonable use of water resources.

She addressed fields of application (agreements) of country obligation: do not harm. In 1992, Almaty Declaration was adopted by the five Heads of Central Asian states. The Declaration states that the Parties agree to protect nature, exchange information on regular basis in order to ensure equitable and reasonable use of water resources, and contains provisions on consultation, notification, and joint consideration.

#### 2. Teshabaev M.M. – (Oliy Majlish (Parliament) of the Republic of Uzbekistan)

The report addressed inadmissibility of construction of large HPPs and reservoirs and a need to construct small HPPs and ratify legal documents. Ensuring of sustainability, effective use of water resources, and improvement of land conditions were also underlined.

#### 3. Gorshkov Yu.K. – (GEF Agency, IFAS, Uzbekistan)

In his report he acknowledged existing departmental contradictions between representatives of energy and water sectors. He also noted that adoption of decisions at ICWC meetings became more complicated and proposed to extend transboundary cooperation.

#### THEN THE FOLLOWING PARTICIPANTS MADE PRESENTATIONS:

1) Kenshimov A.K. – About forthcoming meeting on Convention and establishment of transboundary relations in the city of Urumqi and about past International conference organized under UNDP support in September-October 2010.

2) Martin-Border J. – UNESCO representative (France) on behalf of the UNESCO Director General, about groundwater resources. He also addressed inventory of 273 transboundary aquifers and legal aspects of a new law on transboundary aquifers. By present, 19 articles for this law have been drafted.

3) Akhmadjonov V. – representative of the Ministry of Agriculture and Water Resources of Uzbekistan – about the use of transboundary waters and the need to observe the international water norms.

4) Lysenko O.G. – about the activities of BWO "Amudarya" according to ICWC decisions and the complications in lower reaches, especially in dry periods.

5) Alster I. - Advocate (Israel) – about protection of transboundary waters and on widely recognized norms that should serve as the basis:

- right to equitable use of transboundary waters;

- obligation do not harm;

- consultations and obligatory notification.

6) Trophantchuk S.I. – about the Seversk Donets River basin in Ukraine and the Eastern Ukraine suffering from water shortage.

7) Sorokin D.A. – SIC ICWC (Uzbekistan,) – about the role of regional information systems in strengthening cooperation and on the CAREWIB project.

8) Trombitskiy I. (Moldova)

He called the Central Asian countries to join the Aarhus Convention, ESPOO Convention, Helsinki Convention and other environmental and water conventions.

9) Bo Libert – UNECE representative (Switzerland) – about provisions of UNECE Convention, observance of all three principles, such as equitable and reasonable use, and no-harm.

10) Eckstein Gabriel – Texas Wesleyan University School of Law (USA) – about countries that sign treaties regulating water relations. Principles, procedures, and ensuring of cooperation in this area.

11) Azimov Mirvokhid - MFA (Uzbekistan) – about Water Conventions 1992 and 1997.

12) Normukhamedova G. (Turkmenistan) – about state-of-affairs in the water sector in Turkmenistan and activities undertaken by respective ministries.

13) Joop de Schutter (the Netherlands) – about complex problems in the Aral Sea basin, among which training of personnel in area of water resources management.

#### Additional presentations were also made by:

Kalman Papp (Hungary) – about Tisza and Danube, protection from floods, and water use in Europe.

Dostay Zhanilbay – Institute of Geography (Kazakhstna) – about the role of water resources for the Central Asian countries. Characteristics and problems of water supply in the Republic of Kazakhstan.

S.Ibatullin – Chairman of EC IFAS – about Joint Statement of 5 Heads of Central Asian states.

S.Rakhimov – First Deputy Minister of Water Resources of Tajikistan – about impact of the Conventions on upstream countries.

Ch.Uzakbayev – Deputy Chairman of Water Resources Committee (Kyrgyzstan) – about international cooperation in area of transboundary watercourses management on the basis of the international water conventions.

Sh.Khamraev – Deputy Minister of Agriculture and Water Resources of Uzbekistan – about position of the Republic of Uzbekistan regarding the issue of water use.

## Report on the results of the round-table «ADOPTION OF INNOVATIONS IN AGRARIAN SECTOR IN ORDER TO ACHIEVE FOOD SECURITY»

Moderators: P.I. Kovalenko, Vice-President of International Commission on Irrigation and Drainage (Ukraine), J.Turok, Regional Coordinator ICARDA (Uzbekistan), N.E. Nadjimov, Director, Rural Restructuring Agency (Uzbekistan)

Four key reports were presented at the round-table:

**Mohan J.Reddy** – Head of Office IWMI-Central Asia – who focused on approaches for improving water productivity towards global food security.

**Shukhrat Mukhamedjanov** – Regional Manager, Project "Water Productivity at Plot Level" (WPI-PL), SIC ICWC – who presented results of identification of major problems hampering productive use of land and water resources and achievements on water productivity improvement at field level within the framework of WPI-PL.

**Gopalakrishnan M.** – Secretary General, ICID – who paid attention to application of irrigation technologies for improving food production.

**Mamutov R.** – Deputy Head of Central Administration of MAWR – who informed about adoption of water accounting and water conservation technologies in irrigation sector and on rehabilitation of irrigation and drainage infrastructure in Uzbekistan.



In addition, the following participants had the floor: B.M. Kizyaev- All-Russian Research Institute of Hydraulic Engineering and Reclamation (VNIIGiM), Director (Russia), A.A. Yusupov- Fund for Land Improvement at the Ministry of Finance, Executive Director (Uzbekistan), K.A. Anzelm – «Southern Kazakhstan Hydrogeological Reclamation Expedition» Hydraulic Site (Kazakhstan), N.E. Nadjimov – Director General of the Agency for Restructuring of Agricultural Enterprises (Uzbekistan), S. Alikhodjaeva – Research Institute of Plant Breeding (Uzbekistan), K. Schneider - alpS Center for Climate Change Adaptation Technologies, A. Osipov – Head of Science Division, UNESCO Mission in Uzbekistan, Sh.Kh. Rakhimov – Director General, NPO SANIIRI (Uzbekistan), J. Giovanni – FAO (Italy), and others.

# As a whole, the following main recommendations were made by the participants:

- it is necessary to create a system of innovative partnership, which implies interaction of various organizations and ensures quick communication of data from farm field to relevant institutions and government bodies making decisions on problems faced by farms (including research on improvement of irrigation water management and reduction of irrigation losses; establishment and development of extension services) throughout CA and Central and Eastern Europe by 2015;
- develop mechanisms for implementation and adaptation of effective technologies oriented to farm benefits (those include institutional mechanisms of water management at the level of field, farm, and WUA; real irrigation scheduling based on actual crop needs) throughout CA by 2015;
- implement water accounting and measuring system for emergence of real effective market of water-conservation technologies;
- develop legal mechanisms of relationships between WUA and farms, based on economic incentives of water saving;
- reduce return water from irrigation by 20-30%;
- establish institutional-legal and economic mechanism for harvesting, storage, and processing of agricultural output;
- develop a system of differentiated water and operation charges;
- selection of drought- and salt tolerant and less water-loving varieties of crops;
- elaborate a regional program for application of drip and other irrigation systems adapted to local conditions.

### Report on the Outcomes of the Round Table Discussions "INTEGRATED WATER RESOURCES MANAGEMENT – AS A TOOL FOR BALANCING MULTIPLE USES OF WATER"

### Moderators: Dr. Ania Grobicki, Executive Secretary GWP (Sweden), Dr. Vadim Sokolov, Regional Coordinator GWP CACENA (Uzbekistan)

More than 85 participants of the Conference attended the round table discussions.

General introduction of the round table topic was done by Dr. Grobicki A. She underlined that IWRM as a way towards multiple uses of water in energy, irrigation, fisheries, industry, mining, urban uses, and the environmental requirement as a use sector, also recreation and tourism. How vital it is to have the key stakeholders represented within the IWRM process. Ensuring co-operation rather than conflict, and ensuring the sharing of benefits from the use of water.

Then the discussion was sub-divided into two parts.

#### Part 1: Understanding and content of the IWRM principles

Magnin Olivier – Swiss Cooperation Office in Uzbekistan – "Swiss Approach to IWRM Implementation in Central Asia"

Nazir Mirzaev - SIC ICWC – "Fergana Valley Experience and Prospects with Institutional Set Up at Different Levels of Water Management Hierarchy (Farm – Water Users' Associations – Main Canal) in order to Improve Water Management"

Frobarth V. – Head of GIZ TWMCA Program – "German Experience with IWRM Implementation in Central Asia"

Murat Yakubov – IWMI – «IWRM at the Higher Levels: Transboundary Small River Basins"

Yarash Pulatov "TajikNIIGiM" – "Experience with IWRM Implementation in Tajikistan"

#### Part 2: IWRM procedures and tools

Arevik Hovsepyan (Armenia) – «Operational Strategy (Roadmap) for IWRM Implementation – Experience of Armenia»

Nurgazi Mamataliev (Kyrgyz Republic) – "Experience in IWRM Implementation"

Abdulatif Khomidov (Tajikistan) – "IWRM within Khodjabakirgan Small River Basin"

Igor Petrakov (Kazakhstan) - "Experience of Kazakhstan with Development of IWRM National Plan and its legal basis"

Prof. Nariman Kipshakbaev (Kazakhstan) - "Experience of the Ili - Balkhash Basin Council"

Danka Thalmenierova GWP (Sweden) - "GWP's IWRM ToolBox»

#### **Round-Tables Reports**



In the result of round table discussions there were agreed the following outcomes:

The IWRM could be seen not only as a good theory, but as a real practical instrument.

For future steps participants proposed the following **recommendations** for wide IWRM implementation process:

- Institutional structure for water resources management should be reformed with the aim to subdivide functions – one part have to be responsible for water delivery services, second part – for use of water, the third should provide control (inspection) of the both first. Combination of those functions in one hands (as it is today) not effective from view point of economic mechanisms and incentives. Division of functions will create stimulus for minimization of unproductive losses of water within the water delivery and water uses.
- Institutional set up for water delivery could not be within administrative boundaries – the only on the hydrographic principles to avoid administrative pressure (hydro-egoism).
- Institutional set up, responsible for water use and control could be organized within administrative boundaries, because economic and social, public activities structured on the administrative basis in the countries.
- The policy-making process within the water governance (as opposed to the same within water management) should be organized from bottom to top. It will allow to avoid professional / sectoral hydro-egoism, and to put the process into democratic way with involvement of the key stakeholders.
- Investments for improvements of infrastructure will be not effective without adequate (above-mentioned) institutional reforms
- Institutional changes without improvements of managerial instruments also will be not effective. First of all, there are needs for economic mechanisms and financial instruments to provide financial sustainability at the lower institutional levels, where final products are created by means of water uses.
- During reforms, and day-to-day activities in water sector orientation should be addressing not to actions but to practical outcomes, achieved in result of those actions. The all changes (even institutional) should be measured by proper water indicators more drop of saved water per any action.
- Orientation to the only social equity or only to the economic effectiveness of water uses not admissible. There should be proper balance among social equity and economic effects with accounting ecological stability. From this point of

view, there is need for special programme on "water education" and creation of thnew generation of water leaders.

<u>The principal actions</u> recommended by round-table participants for the coming two years are the following:

- National IWRM Plans (or IWRM Visions) development and their adoption by National Water Authorities in Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – by the end 2012.
- National IWRM policy dialogues in all countries for promotion of wide public participation (proper stakeholders) in water governance at all hierarchic levels is essential for 2011-2012. The main issues of policy dialogues are - how to ensure the legal arrangements for the Public Water Bodies involved, what financial mechanisms for their involvement are needed.
- With the framework of the ASBP-3 to establish the network of training centers and managing the coordinated capacity development process over the region. This training network should provide during 2011-2012 training and wide popularization of IWRM principles and achievements with water users' participation.
- Creation the expert working groups for legal and financial justification of IWRM and establishing its legislative basis, improving water charging mechanisms, legal and financial coordination of efficient water use aspects at all hierarchic levels during 2011-2012.
- Provide assistance to the National water authorities to attract funds for technical measures during 2011-2012, aiming: introduction of water record keeping; contribution of hydro-meteorological services in IWRM; establishing the extension service for improving the water productivity; computerization of managing the water supply and irrigation systems; water-saving interventions, etc.

### Report on theResults of theRound-Table "RISK MANAGEMENT AND WATER SECURITY"

### Moderators: Bo Libert, UNECE (Switzerland), N.Umarov, State Committee on Nature Protection (Republic of Uzbekistan)

At the roundtable the participants presented reports and statements in accordance with the Work Program.

The roundtable focus was discussion on the Conceptual Note "Risk management and water security."

Mr. Bo Libert, Regional Adviser on Environment at the UN Economic Commission for Europe, highlighted the regional UNECE project's outcomes on safety of hydraulic structures and main tasks of ensuring security. In addition, it was noted that development of adequate institutional and legal framework is needed for dams' safety in Central Asia.

In his report, Mr. Ernazarov Nozim (Head of the National Inspectorate "Gosvodkhoznadzor") told about experience of the Republic of Uzbekistan on ensuring the safety and reliability of technical conditions of large and strategically important hydraulic structures. The established legal framework in the Republic of Uzbekistan to ensure the safety of hydraulic structures, and experience in developing and implementing the mechanism for monitoring safety of hydraulic structures, which is necessary to analyze and evaluate the forecasts of the situation with safety of structures etc., were positively assessed. The report also has examples of accidents at the Sayano-Shushensk hydropower plant in Russia, the Saragach dam in Kazakhstan and other cases in Tajikistan.



Mr. K. Ballyev, the representative of the Executive Committee of IFAS in Turkmenistan, presented to the participants a brief version of the Concept Note "Safety of hydraulic structures in Central Asia", in which he noted that large dams because of their operation for more than 40-50 years, are under effect of sedimentation, aging and as a result their reliability and technical capabilities are decreasing. Particularly the following issues were underlined: creation of monitoring system for safety of hydraulic structures in Central Asia, implementation of information-diagnostic system for waterworks, support for training of specialists in Central Asian countries on ensuring safety of hydraulic structures.

There were presented a brief reports on the following issues: "Management of the Sayano-Shushensk reservoir's operation under non-project conditions after the accident at the hydropower plant" (Bednaruk S.E., Russia); «Seismic risk and water security» (Rashidov T.R. – specialist of the Academy of Sciences of the Republic of Uzbekistan); «Analysis of natural hydrological phenomena in Belarus and kazakhstan» (Kalinin M.Yu., Belarus).

Participants noted the progress in the adoption of the Law on safety of hydraulic structures in the Republic of Tajikistan, the experience of joint work in Kyrgyzstan and Kazakhstan on ensuring the safety of hydraulic structures.

The work of international organizations, including UNECE to assist the safety of hydraulic structures in Central Asia is noted positively.

#### The Roundtable conclusions:

- large dams because of their long-term operation are under effect of the sedimentation, aging and as a result their reliability and technical capabilities are decreasing;
- high seismicity and activation of natural processes in Central Asian countries can lead to tragic consequences in case of construction and operation of large hydraulic structures;
- a monitoring system for safety of hydraulic structures is needed to be created in Central Asia;
- water security must be achieved simultaneously with the environmental safety;
- the training of specialists in the field of safety of hydraulic structures is important to be organized;
- the legislation development and the convergence of regulatory and technical documents in the field of safety of hydraulic structures as important element in ensuring the safety of hydraulic structures are needed to be done;
- there is a need to adopt the Agreement between the Governments of Central Asian countries on cooperation in the field of safety of hydraulic structures.

### Report on theResults of theRound-Table "CLIMATE CHANGE AND CONSERVING ENVIRONMENTAL CAPACITY"

# Moderators: B.Kadyrov, First Deputy of the Director General of UzHYDROMET, Uzbekistan; S.Sanginov, Vice-chairman of Ecological Movement of Uzbekistan

The roundtable was attended by 38 representatives of international organizations, foreign experts, water management specialists, community representatives and others.

#### There were 3 reports and 8 presentations at the round table.

Agaltseva N.A. (Center of Hydrometeorology under the Cabinet of Ministers of the Republic of Uzbekistan) in her report "Climate change and its impact on natural-resource potential of Uzbekistan" noted that the ecosystems in the country are very vulnerable to climate change; adaptation to climate change should be strengthened, there is a tendency of decreasing water resources of transboundary rivers in the Central Asian region, while water requirements of agriculture are increasing, therefore acceptable problem solutions need to be found.

Buranov U.K. (Agency for the ASBM and GEF projects implementation) in his report "Some aspects of climate change problem and the current situation in the Priaralie" pointed out that climate change and increasing human impact on the Amudarya River runoff lead to increased environmental degradation in the Priaralie; Uzbekistan's efforts and assistance of international organizations made it possible to intensify measures to reduce the transport of salts and dust, to increase the afforested area, improve drinking water supply to local population, improve medical services to residents in Priaralie, strengthen the material-technical base of agriculture, etc., but environmental problems in the region require to strengthen further efforts.

Data on climate change in Central Asia for various scenarios and their impact on the environment and the river flow regimes are given in the report of Mrs. K. Unger-Shayesteh (CAWA project coordinator, Germany) – "Climate change in Central Asia - preliminary results from the CAWA project".

Analysis of climate change consequences for water bodies and ecosystems and current problems of water resources use under climate change in the region, as well as proposals on the content of the Roundtable's concept note are given in the following reports: Shivareva S.P. (Regional Hydrological Center, EC IFAS, Kazakhstan) «Probable dynamics of hydrological regime of the northern aral sea under given economic activity and climate change in its basin»; Fokkens Bart (European Centre for river restoration, the Netherlands) – "Eco-system based river restoration and a good ecological status of water bodies"; A.S. Merkushkin (Center of Hydrometeorological Service under the Cabinet of Ministers of the Republic of Uzbekistan) – «Hazardous hydrometeorological phenomena under climate change conditions»; Makela A.J. (Finnish Environment Institute, Finland) –

"Water quality monitoring - developing the use of indicators-based assessments in the Kyrgyz Republic"; A.A.Grigoryants (Gosbiocontrol of the Republic of Uzbekistan) – «Protection of biodiversity in Uzbekistan under climate change»; Alfred Diebold (Technical Director, EC-IFAS) "Serving the People of Central Asia – from the Glaciers to the Deltas" Aral Sea Basin Program 3 – Blue Peace and Blue Diplomacy; Aksionova L.A. (State Committee on Nature Protection, Uzbekistan) and others.

#### Following the discussion, it was decided:

Having recognized the evident ongoing climate change and the related negative consequences in almost all sectors of the economy and social sphere, it should be noted that the targets identified in the Concept Note "Climate change and conserving environmental capacity" are relevant for all countries of the Central Asian region as a whole.

Given that 6th World Water Forum is intended to be a forum of solutions, the problems identified in the outcome document of the conference and in the Concept Note "Climate change and conservation of nature potential" and during the discussion within the thematic round table are priorities for the whole region,

Measures aimed at mitigation or prevention of the adverse effects of climate change in key economic sectors dependent on climate and in social sphere are offered on the basis of "good practices" and practical experience and knowledge,

Implementation of the proposed practical actions would be a significant contribution to achieving the main priorities identified for the forthcoming 6th World Water Forum.

Assessment of vulnerability and climate change consequences for environment and socio-economic conditions has revealed a need for adequate measures to mitigate negative impacts and adapt to new conditions.

As follows from the roundtable discussion, the main strategies and adaptation measures should be directed to:

- mitigate water scarcity;
- restore and support ecosystems, with special attention to the fragile and highly vulnerable ecosystems in Priaralie;
- reduce the risk of natural disasters (droughts, mudflows, floods, landslides);
- prevent processes leading to land degradation and desertification in the region, as well as to loss of biodiversity and risks for food security;
- increase water use efficiency in agriculture and other sectors dependent on water resources, etc.

The following is needed first of all:

• development of legal mechanisms to harmonize relationships in the field of water use, water consumption and ecosystem protection in the transboundary

water basins;

- an agreement of the riparian countries to determine the water volume for agricultural production, as well as the water volume for health and environmental needs, in order to maintain and restore the delta ecosystem;
- development of adaptation strategies for transboundary water basins and harmonization of water use problems;
- monitoring of hydro-meteorological conditions, climate and water quality;
- widespread implementation of IWRM;
- · development of early warning systems about natural disasters;
- widespread implementation of water saving technologies in agriculture, industry and domestic sectors;
- reconstruction of irrigation systems.

# Feedback from the participants in mass media

On 12-13 May, a regional conference in preparation for the Sixth World Water Forum was held in Tashkent. UzA correspondents talked to some of its members.

Jacques Barrat, a professor of Pantheon-Assas Paris II University, political scientist (France):

"This conference is important because it gives an opportunity to comprehensively dSICuss very important issues to combat water scarcity in the world. The next World Water Forum will be held in 2012 in the French city of Marseille, which imposes on us an even greater responsibility.

Today Central Asia, including Uzbekistan, face problems with water. The reason for their occurrence in the region was the irrational use of water resources in the recent past. In the welcoming speech of the President of Uzbekistan Islam Karimov to the participants of the forum, a special attention was paid to problems that arise because of environmental and water waste, which led to the drying of the Aral Sea.

I would like to point out that the proposed construction of new hydro giant poses a serious threat not only to Uzbekistan but also other countries in the region. In particular, it is alarming that the Rogun hydro power is envisaged in the zone of high seismicity. In this case, the economies of all countries in the region will suffer enormous damage; thousands of lives will be put in danger. If we consider these threats, Rogun is like a suicide. Therefore, this issue must be objectively, carefully and thoroughly dSICussed at the international level."

# Danka Talmeynerova, a representative of the international organization Global Water Partnership (Sweden):

"In Uzbekistan, a tremendous amount of work to ensure water security is increasing each year. This is clearly recognized by the international community. We must pay tribute to Uzbekistan, which has rich experience in rational and efficient use of water resources.

However, today there are various water issues in the region. In particular, problems associated with the Aral Sea crisis, shortage of drinking water in the Aral Sea area and air pollution still await their solution. It is distressing that the once-bustling Aral Sea basin, with its large port and surrounding area are now turned into a desert."

Bart Fokkens, President of the European Center for River Restoration (Netherlands):

"As a result of waste of natural resources, including water in recent years worldwide, a number of environmental problems had occurred. Water is an essential factor in the industry and agriculture. The Aral Sea has become a symbol of the global environmental crisis not only in Central Asia. Because of this, and there is a lot of social problems.

I hope that this conference will be important to address such pressing issues as lack of potable water in the Aral Sea and the decline of its quality, pollution, and others."

# Nino Chkhobadze, a regional member of the international organization Global Water Partnership, Co-Chairwoman of Friends of the Earth green movement (Georgia):

"The problem of the Aral Sea for many years had worried the entire world community. I participated in many international conferences on this topic. If the Aral problem is not solved, then its consequences will be affected not only the population of this region and other countries.

International conference in Tashkent is extremely important for the future of the region. Solving the problems in transboundary waters primarily depends on the rational use of water.

I am an ecologist, which is why, in my opinion, the construction of large hydroelectric power station, regardless of its location, is a problem. The construction of such structure will lead to consequences for the ecology and the environment. Before the construction of such large hydro as Rogun, the projects must undergo an independent international expert to be thoroughly tested."

# Nadejda Prokhorova, director of the Research Institute for the protection and comprehensive use of water resources (Russia):

"Uzbekistan has made huge efforts to reduce the negative impact of the Aral Sea tragedy, further improve the living conditions of the population and solve the region's water problems.

In some regions of Russia lack of water is still an unsolved urgent problem. Our Institute is engaged in the emerging water management problems, issues of water resources management and training of qualified environmental specialists.

Without water there is no life – it is an indisputable truth. Water resources are limited. Therefore, the actions of Uzbekistan for attracting world attention to the positive solution of this issue are very correct and timely."

#### Joelle Rizk, Coordinator of East-West Institute (Belgium):

"Water resources are important factor in economic development for all countries. Tashkent forum is of great importance in the dSICussion and search for optimal solutions to problems, such as water security, water management, the impact of the Aral Sea environmental crisis in the gene pool of the nation's flora and fauna and watercourse regulation of the Amudarya and Syrdarya."

# Sagit Ibatullin, chairman of the executive committee of the International Fund for Saving the Aral Sea (Kazakhstan):

"The management and efficient use of water resources is of particular relevance today. Tashkent international conference provides a good opportunity to dSICuss such issues.

Large-scale reforms at the initiative of President Islam Karimov are carried out in your country to protect the environment, improve the ecosystem, particularly water resources and solve existing problems in the area."

#### Laurent Guye, Regional Director, Swiss Cooperation Office:

"Tashkent-forum is an opportunity to dSICuss such issues as water management, conservation of the hydrological balance at the regional and global level, the modernization of agricultural infrastructure as well as the further strengthening the international cooperation in this regard.

Complex socio-economic, environmental and demographic problems that could dire consequences not only in the Aral Sea, but also globally, should immediately be solved. The solution of such serious issues that are vital to many millions of people in Central Asia, requires a concerted and effective action by the world community.

Our relations with Uzbekistan are gradually developing. For example, now together with your country, we are working on projects on water supply issues."

# Kathy Unger-Shayesteh, the project coordinator of CAW Research Center for Geosciences (Germany):

"Our center cooperates with Uzbekistan in the framework of the project "Water in Central Asia." To address environmental issues, particularly related to transboundary rivers, an open dialogue is required. Today's international conference in Uzbekistan is a good example of this approach.

In order to solve the Aral Sea crisis and for sustainable development and improved well-being of residents in the zone of ecological disaster, joint efforts and active cooperation of Central Asian countries and representatives of international organizations are needed."

#### Bo Libert, Regional Adviser of United Nations Economic Commission for Europe:

"Our organization works closely with the countries of Central Asia, in particular, with Uzbekistan. In this region, the water problem is urgent, therefore, holding this international forum has been very helpful. The conference addressed the most pressing issues related to water security, management of water resources.

Water is the source of life. Deeply aware of this, Uzbekistan pays attention to the development of water management. It is well known to the international community.

Insiccation of Aral Sea is an incredible environmental disaster. This causes a range of socio-economic problems. Measures taken by Uzbekistan are improving the situation. But to solve the problem, all countries should take joint action in this direction. After all, if the Aral problem is not resolved, the consequences will hit not only the population of that territory, but countries around the world."

#### Tahir Shamshad, Deputy Mayor of Islamabad (Pakistan):

"Currently, the relevance of the water problem is understood by all countries. This, of course, requires regional cooperation. The countries in the region should work together to address the issues of rational use of water, its protection, eliminating the causes of drying up of once unique beauty of the Aral Sea. With involvement of modern technologies, the scale of water problem has dropped considerably.

Huge negative impact of the Aral Sea tragedy on the ecosystem of the whole region is obvious. To stabilize the environmental situation in the region the international attention should be involved to this matter."

# Janusz Kindler, a professor of water resources and ecosystems of Warsaw Technical University (Poland):

"For many years I have been working in Uzbekistan and I am well informed about water issues in the region. I am aware of what kind of work is being done by the government of Uzbekistan to improve the living conditions in Aral Sea area. However, full stabilization of the complicated situation, and solution of serious problems do not depend only on Uzbekistan.

The conference dSICussed the issues of enhancing cooperation through the sharing of water resources management in Central Asia, climate change in the Aral Sea region, the negative impact of large industrial plants on the environment and other pressing environmental issues."

# Oksana Boyarkina, representative of the Institute of Water Problems of Russian Academy of Science:

"When using the transboundary rivers, one should strictly observe the international legal instruments. Some governments in the region and international organizations need to integrate actions to address transboundary environmental problems and reduce environmental threats.

Conducting this conference in Tashkent is important. Here we got a lot of new and useful information to address the problems associated with the use of transboundary rivers. Everyone knows that the president of Uzbekistan put forward new initiatives to address these issues and large-scale studies have been done already. From this perspec-

tive, the welcome note by President Islam Karimov to the participants of the conference further raised the status of the forum."

#### Simon Croxton, Senior Natural Resources Specialist in World Bank:

"We have almost lost the Aral Sea. Of course, still there is some water in the Sea, but its major part have dried out. We must replenish the rest part due to the rivers and preserve the natural balance in the region. This International Conference is significant for not only the countries of this region, but also for other countries in the world. The Conference considers such important issues as improvement of ecological situation in the region, environmental protection, and development of economical water resources use methods.

The Rogun Hydropower Plant construction project of the Tajikistan Government should be studied by international organizations and experts".

# Muhammad Nazim Nejabi, Professor of the Kabul Polytechnic University (Afghanistan):

"This International Conference, being organized at a high level, covers the most topical issues to date. At the Conference, we received a lot important information concerning many social problems, public health protection, and environmental protection by organizing effective water resources management as well as their rational use.

When preventing ecological problems and abating their negative effect on environment, it is significant to take cooperative and coordinated actions. In Afghanistan, there are a lot of water related problems. Unfortunately, we do not have sufficient capabilities to solve such urgent problems".

# Mukutesware Gopalakrishnan, Secretary General on International Commission of Irrigation and Drainage:

"In November 2010, I participated in an international conference named "Transboundary environmental problems of Central Asia: application of international legal mechanisms for their solution" held in Tashkent. The effect of the global ecological problems arisen in the Aral Sea coastal area is felt in not only the Central Asian countries, but also in the regions that are far from it. Prevention of these problems requires further strengthening of cooperation among world countries and international organizations.

The Uzbekistan's initiatives on environmental protection, solution of ecological problems, special attention your country pays to strengthening of international cooperation in this area yield high showings.

For rational use of the existing water resources and solution of water security problems, it is necessary to further strengthen the cooperation. This International Conference, held in Uzbekistan, is a striking example of such an approach".

Mohammad Abbos Khan, Director of the Melsoc International Company (Pakistan):

"Solution of serious ecological problems emerged in the Aral Sea coastal area is vital for not only the community of that area and in whole Central Asia, but also for many countries worldwide. It is noteworthy that Uzbekistan undertakes necessary actions to solve this problem. However, its complete solution requires further activation of international cooperation.

It is well known that the Rogun Hydropower Plant construction project of the Tajikistan Government has become obsolete long ago. It needs to be reconsidered. Prior to start building such gigantic structures, it is necessary to impartially and thoroughly study their possible consequences".

Stated achievements of the Conference were possible thanks to the contributions from World Water Forum (40'000 Euros), Swiss Agency for Development and Cooperation (35'000 US dollars), Global Water Partnership (30'000 US dollars), Government of Uzbekistan (40'000 US dollars), World Bank, EC IFAS, and Embassy of Israel.

For more information on the Conference, visit the website:

www.cawater-info.net/6wwf/conference\_tashkent2011/

# Preparatory Process for the Sixth World Water Forum at Global Level and the Place of Central Asia

The World Water Council (WWC) was established in 1996 under the aegis of the United Nations. Its objectives are to identify critical water issues of local, regional and global importance on the basis of ongoing assessments of the state of water, as well as to raise awareness about critical water issues at all levels of decision making, from the highest authorities to the general public.

In order to achieve these objectives, the Council in form of an international network undertakes actions related to the preparation and organization of any forum, symposium, conference on water issues, as well as the World Water Forum.

The Council's World Water Forum, organized every three years since 1997 in close collaboration with the authorities of the hosting country, is the largest international event in the field of water. It primarily serves four main purposes:

- To raise the importance of water on the political agenda
- To support the deepening of discussions towards the solution of international water issues in the 21st century
- To formulate concrete proposals and bring their importance to the world's attention
- To generate political commitment
- The World Water Forum has led:
- the movement from the World Water Vision, whose results were presented at the 2nd Forum (Hague, 2000)
- to the establishment of concrete actions and commitments derived from the 3rd Forum (Kyoto, 2003).
- With the 4th World Water Forum (Mexico, 2006), the Council gave direction to establish mechanisms of cooperation and coordination to transform a global vision into concrete actions that integrate local knowledge.
- The 5th World Water Forum held in Istanbul in 2009 was focused on bridging at the global level various views and positions that still exist in some regions.

At the meeting of the Board of Governors of the World Water Council on 3rd of June 2010, the Vice-President of WWC Mr, Ben Braga, who was appointed as the President of International Forum Committee, presented a preparatory process plan, including with subdivision into regions. Moreover, Central Asia as a sub-region was included into the European process.

Then, the initiative group (EC IFAS, SIC ICWC, GWP CACENA, NWO EECCA) was established for elaboration of target directions and identified regional water issues to the following 7 thematic priorities of the Forum:

- Guaranteeing water for future generations
- Risk management and water security
- Adoption of innovations in agriculture through agrarian reforms in order to achieve food security
- International cooperation on transboundary water management on the basis of international water conventions
- Integrated water resources management a tool for balancing multiple uses of water
- Climate change and conserving environmental capacity
- Drinking water supply and sanitation.

Working Groups for each of seven priorities were established, coordinators were assigned, preliminary targets and contents were set, and drafts of conceptual notes were drawn up. All above materials were submitted to and agreed with the Forum Committee, the leadership of the Regional Commission and the INBO-Europe, which was assigned preliminary as the coordinator of European process.

At the same time, the proposal to hold a Regional Conference for Central Asia and Caucasus in Tashkent in May 2011 was discussed with the President of WWC. As a result, respective proposal was submitted to the Uzbekistan's Ministry for Foreign Affairs with the support of the Ministry of Agriculture and Water Resources of Uzbekistan.

At the 2nd kickoff meeting in Paris on 17 -18 January 2011, the presented draft document on organization of preparatory process within the framework of European campaign was not approved since IFC voiced an opinion to organize additional 3 cross-continental regions besides the 4 main regions, among those became Central Asia separately from Caucasus (which remained under the European process).

The International Forum Committee held teleconference on the 1st of February 2011 under chairmanship of Prof. Ben Braga, President of IFC, where Prof. V.A.Dukhovny took part as well and where that opinion was acknowledged through formal decision. This was officially confirmed by the letters of Mrs Eun-Kyung Park, Chair of the IFC Regional Commission, on 22nd of February and Mr. Bernard Maurice from 24 February 2010. At the same time, it was requested to make appropriate amendments in the draft document on preparatory process and submit it to IFC for approval. Thus, in March 2011, the cross-continental process for Central Asia was formally approved by the Forum's Committee.

Taking into account priorities identified for Central Asia within the framework of the Forum's thematic priorities, Coordinators were assigned for each of priorities, who drafted Concept Notes. Further on, the coordinators acted as moderators of virtual discussions and, later, of round-table discussions during the Conference. The following persons were proposed to act as coordinators and approved:

- Guaranteeing water for future generations Prof. V.A.Dukhovny and Prof. N.B. Prokhorova (Russia);
- Risk management and water security Dr. K.B. Balliyev (Turkmenistan) and Bo Libert (UNECE);

- Adoption of innovations in agriculture through agrarian reforms in order to achieve food security – acad. Kovalenko P.I. (Ukraine) and Josef Turok (ICARDA, Uzbekistan);
- International cooperation on transboundary water management on the basis of international water conventions – S. Ibatullin (EC IFAS) and Flavia Loures (WWF);
- Integrated water resources management a tool for balancing multiple uses of water - V.I.Sokolov (Uzbekistan) and A. Grobicki (GWP);
- Climate change and conserving environmental capacity V.Ye.Chub, then replaced by B.Kadyrov (Uzbekistan) and P.Esenov (SIC ICSD, Turkmenistan);
- Drinking water supply and sanitation A.O.Orman (Kazakhstan) and Ch.M. Uzakbaev (Kyrgyzstan).

Since the beginning of preparation to the Forum, a special window "Towards the Sixth World Water Forum," was opened on the site: www.cawater-info.net/6wwf/conference\_tashkent2011/, which contained all Forum material, announcements and posted Concept Notes. Further on, this window will be the space of virtual discussions of those and other Forum's materials, as well as of most interesting information.

According to the Order № 03/1-913 of the Cabinet of Ministers of December 7, 2010, preparatory work was started on organization of the conference in Tashkent. The order № 65-f of the Cabinet of Ministers of February 2, 2011 approved composition of the organizing committee and plan of measures.

Uzbekistan was selected as the host of the regional conference for good reason – since the country is the leader in many topics addressed in Central Asia.

Thanks to understanding of the social value of irrigation and the wise state policy in the water sector over years of independence Uzbekistan has management not only to maintain its irrigation potential, but also to successfully modernize irrigation systems. Thus, more than US\$ 110 million annually of government budget are allocated for implementation of the Irrigated Land Reclamation Program. As a result, during 2008-2010 there were improved the conditions of almost 740, 000 hectares of irrigated lands.

Uzbekistan is adopting the progressive methods of water application (drip irrigation, sprinkling, discrete and high-frequency irrigation). The Government on the basis of different forms of grants and investments supports works related to their widespread introduction.

Introduction of the principles of integrated water resources management (IWRM) is the basis for the progress in the water sector; and in this field of activity Uzbekistan is the recognized leader in the region according to the analytic reviews of the World Bank, ADB, and other international organizations. It is sufficient to mention It is sufficient to mention that the hydrographic and participatory principles of water resources management have been already applied on over 120,000 hectares in the Fergana Valley, and nowadays are in the process of introduction on extra 250,000 hectares in other provinces. IWRM allows to raise the reliability of water use, to give the masses access to water governance and simultaneously to reduce water consumption to a considerable degree. Efficient water governance developed on the basis of the IWRM principles enables efficient use of investments in the state-of-the-art water conservation technologies, system of automated control and management of water distribution and sets the monitoring systems of water use.

The objective of the Conference in Tashkent is to demonstrate that fresh water resources per each citizen in our region are depleting and we can survive only on joint basis through rational approaches to water supply and water use. Water is not a bone of contention or a cause for conflict. Water is a pivot of cooperation and joint actions towards water security.

On 17 March 2011, the Organizing Committee approved the conference program in form of two plenary sessions and seven parallel round-tables that finally should produce a collective output on the above-mentioned seven regional priorities.

The Conference and its organization were supported by the Government of the Republic of Uzbekistan, the World Water Council, the International Fund for Saving the Aral Sea, the Swiss Development and Cooperation Office, the Global Water Partnership for Caucasus and Central Asia, and the Ecological Movement of Uzbekistan.

According to registration data of the Organizing Committee, the conference was attended by 407 people, including 137 foreign participants from 32 countries, 63 representatives of international organizations, 39 representatives of diplomatic missions and embassies. The Conference course was covered by 19 international and 43 national mass media.

### LIST OF PARTICIPANTS of International Conference "Towards the 6th World Water Forum - Cooperative Actions for Water Security" (Tashkent, 12-13 May 2011)

N⁰	Nº	Surname	Country	Workplace
-		I	Uzbekista	n
1	1	Azimov Rustam	Uzbekistan	First Deputy Prime Minister of the Republic of Uzbekistan
2	2	Saidova Galina	Uzbekistan	Minister of Foreign Economic Relations, Investments and Trade of the Republic of Uzbekistan
3	3	Alikhanov Boriy	Uzbekistan	Deputy Speaker of the Legislative Chamber of Oliy Majlis of Uzbekistan
4	4	Khamraev Shavkat	Uzbekistan	Deputy Minister of Agriculture and Water Resources of the Republic of Uzbekistan
5	5	Mukhitdinov Khakim	Uzbekistan	Director-General of the Uzbek Agency of Communication and Information
6	6	Umarov Nariman	Uzbekistan	Chairman, State Committee of Uzbekistan for Nature Protection
7	7	khalmukhamedov Utkir	Uzbekistan	Director, Agency «Uzkommunkhizmat»
8	8	Kamalov Akmal	Uzbekistan	First Deputy Minister of MFER
9	9	Tulaganov Shavkat	Uzbekistan	Deputy Minister of MFER
10	10	Salimov Asatulla	Uzbekistan	Deputy Minister of Economy
11	11	Tursunov Erkin	Uzbekistan	Deputy Minister of Finance of Uzbekistan
12	12	Kadyrov Bakhtiyor	Uzbekistan	Center of Hydrometeorology under the Cabinet of Ministers of Uzbekistan (UzGidromed)
13	13	Teshabayev Mukhammadyusuf	Uzbekistan	Chairman of the Committee, the Legislative Chamber of Oliy Majlis
14	14	Ernazarov Nazimjon	Uzbekistan	Head of State Inspectorate "Gosvodkhoznadzor"
15	15	Yusupov Asilbek	Uzbekistan	Department of Land Reclamation Fund
16	16	Nasretdinov Nodir	Uzbekistan	The Cabinet Ministers of Uzbekistan
17	17	Ruzibayev Bakhodir	Uzbekistan	Deputy Chief of Main Directorate of Water Resources Ministry of Agriculture and Water Resources
18	18	Mamutov Ravshan	Uzbekistan	Deputy Chief of Main Directorate of Water Resources Ministry of Agriculture
19	19	Najimov Nasriddin	Uzbekistan	Agency for Restructuring of Agricultural Enterprises
20	20	Kamalov Bakhtiyor	Uzbekistan	Deputy Director General of Agency of Ministry of Agriculture and Water Resources
21	21	Fozilov Allomjon	Uzbekistan	Head of Department, Ministry of Agriculture and Water Resources
22	22	Abdurazzokov Jakhongir	Uzbekistan	Head of Department, Ministry of Agriculture and Water Resources
23	23	Sayfutdinov Pazliddin	Uzbekistan	Head of Department, Ministry of Agriculture and Water Resources
24	24	Akhmadjonov Vokhidjon	Uzbekistan	Deputy Head of Department, Ministry of Agriculture and Water Resources
25	25	Kuchkarov Kamol	Uzbekistan	Ministry of Agriculture and Water Resources
26	26	Burkhonjonov Birodarjon	Uzbekistan	Head of Sector, Ministry of Agriculture and Water Resources
27	27	Abdullayev Jasur	Uzbekistan	Chief Specialist of Ministry of Agriculture and Water Resources
28	28	Ibragimov Mukhammad	Uzbekistan	Head of Department, Ministry of Agriculture and Water Resources Guiding specialist, Ministry of Agriculture and Water
29	29	Isakjanov Kobil	Uzbekistan	Resources
30	30	Ishpulatov Zokir	Uzbekistan	Guiding specialist, Ministry of Agriculture and Water Resources
31	31	Buranov Farkhod	Uzbekistan	Specialist, Ministry of Agriculture and Water Resources
32	32	Teshaboyev Ilkhom	Uzbekistan	Ministry of Agriculture and Water Resources
33	33	Utemuratov Makhsed	Uzbekistan	Guiding specialist, Ministry of Agriculture and Water Resources

N⁰	N⁰	Surname	Country	Workplace
34	34	Mirbabayev Botir	Uzbekistan	Director of Department, Ministry of Finance
35	35	Nuriyev Shamsmukhammad	Uzbekistan	Head of Department, Ministry of Finance
36	36	Tursunov Nuriddin	Uzbekistan	Deputy Director of Department, Ministry of Finance
37	37	Khakimov Farkhod	Uzbekistan	Head of Department Ministry of Foreign Affairs
38	38	Azimov Mirvokhid	Uzbekistan	Head of International Treaties of Foreign Ministry of Uzbekistan
39	39	Abdullayev Ulugbek	Uzbekistan	Third secretary of Foreign Ministry of Uzbekistan
40	40	Akbarov Aslam	Uzbekistan	First secretary of Foreign Ministry of Uzbekistan
41	41	Nurimbetov Rakhmatilla	Uzbekistan	First secretary of Foreign Ministry of Uzbekistan
42	42	Parmonov Djakhangir	Uzbekistan	Second secretary of Foreign Ministry of Uzbekistan
43	43	Khodjayev Jalol	Uzbekistan	Attache of Ministry of Foreign Affairs of Uzbekistan
44	44	Madreymov Kengesbay	Uzbekistan	Head of Department MFER
45	45	Mirzayev Bakhtiyor	Uzbekistan	Head of Department MFER
46	46	Akhunov Jamoliddin	Uzbekistan	Leading specialist of MFER
47	47	Khodjiyev Avaz	Uzbekistan	Leading specialist of MFER
48	48	Yuldashev Shakhobiddin	Uzbekistan	Leading specialist of MFER
49	49	Abdullayev Sherzod	Uzbekistan	Director of Coordination and Analytical Center of Foreign Policy Studies
50	50	Abidov Bakhodir	Uzbekistan	Deputy Director, Coordination and Analytical Center of Foreign Policy Studies
51	51	Sarukhanyan Yuriy	Uzbekistan	Specialist of Coordination and Analysis Center Foreign Policy Studies
52	52	Merkushkin Alexandr	Uzbekistan	Uzhydromet
53	53	Agaltseva Natalya	Uzbekistan	Uzhydromet
54	54	Aksenova Lyudmila	Uzbekistan	Head of International Cooperation and the State Committee for Programme of State Committee of Nature
55	55	Grigoryants Alexandr	Uzbekistan	State bio control of the State Committee of Nature
56	56	Madaliyeva Saliya	Uzbekistan	Head of State Committee of Nature
57	57	Shevaldova Nataliya	Uzbekistan	Deputy Director of the publishing house Chinor "at the State Committee of Nature
58	58	Yunusov Nodir	Uzbekistan	Chief Specialist, State Committee of Nature of Uzbekistan
59	59	Sanginov Saydirasul	Uzbekistan	Ecological Movement of Uzbekistan
60	60	Kulmatov Rashid	Uzbekistan	Ecological Movement of Uzbekistan
61	61	Mirrakhimov Rustam	Uzbekistan	Head of the monitoring group of the Ecology Movement of Uzbekistan
62	62	Khushvaktov Islam	Uzbekistan	Assistant Vice-Speaker of the Legislative Chamber of Oliy Majlis
63	63	Abdullayev Umid	Uzbekistan	Director of "UzGIP"
64	64	Khamzin Salikh	Uzbekistan	Head of department of "UzGIP"
65	65	Jigarev Sergey	Uzbekistan	Director of the Institute "Hydroproject"
66	66	Kobilov Khamid	Uzbekistan	Director of "Vodproekt"
67	67	Khudoyberdiev Tolib	Uzbekistan	Rector of the Tashkent Institute of Irrigation and Reclamation
68	68	Umurzakov Uktam	Uzbekistan	First Vice-Rector of the Tashkent Institute of Irrigation and Reclamation
69	69	Salakhitdinov Abdukhakim	Uzbekistan	Vice-Rector of the Tashkent Institute of Irrigation and Reclamation
70	70	Makhmudov Ernazar	Uzbekistan	Institute of Water Problems in the Uzbekistan Academy of Sciences
71	71	Nadjimov Marat	Uzbekistan	Open Joint Stock Company «O'ZSUVLOYIHA»
72	72	Rakhimov Shavkat	Uzbekistan	Director-General of SANIIRI
73	73	Begimov Ismail	Uzbekistan	Department head of SANIIRI

N⁰	N⁰	Surname	Country	Workplace
74	74	Kenjabayev Shavkat	Uzbekistan	Researcher of SANIIRI
75	75	Kurbanbayev Erejep	Uzbekistan	Director, Karakalpakstan Branch of SANIIRI
76	76	Kabilov Firdavs	Uzbekistan	University of Edinburgh
77	77	Alikhodjayeva Sofiya	Uzbekistan	Head of the Department of the Institute of Breeding
78	78	Chembarisov Elmir	Uzbekistan	Institute of Water Problems of Uzbekistan Academy of Sciences
79	79	Gadayev Abror	Uzbekistan	Samarkand State Architectural - building Institute
80	80	Kamalov Akmal	Uzbekistan	SE "Gidrotehekspertiza"
81	81	Kuziyev Komiljon	Uzbekistan	Tashkent Financial Institute
82	82	Razakov Rustam	Uzbekistan	Scientific Advisory Centre "ECOservice"
83	83	Tursunov Abdumannap	Uzbekistan	Professor of TSAS
84	84	Khikmatov Fazliddin	Uzbekistan	National University of Uzbekistan
85	85	Turgunbaev Shahriyor	Uzbekistan	National University of Uzbekistan
86	86	Chepel Sergey	Uzbekistan	Institute of Forecasting and Macroeconomic Research under the Cabinet of the Republic of Uzbekistan
87	87	Abduraimov Mansur	Uzbekistan	Coordinator of the national water partnership of Uzbekistan NGOs Zeravshan
88	88	Abdurakhmanov Uktam	Uzbekistan	Charitable Foundation
89	89	Boltaboyev Tokhir	Uzbekistan	Deputy Head, Below-Amudarya BAIS
90	90	Davronov Tulkin	Uzbekistan	First Deputy Chief of the Amu-Bukhara BAIS
91	91	Davronov Bolbek	Uzbekistan	Division Head, Below-Syrdarya BAIS
92	92	Zhumayev Akmal	Uzbekistan	First Deputy Chief, Zarafshan BAIS
93	93	Ismoilov Abdulkhamid	Uzbekistan	First Deputy Chief. Amu Surkhan BAIS
94	94	Raupov Iskander	Uzbekistan	Deputy head of the Karman-Konimehskoe AIS
95	95	Ruziev Zhurakul	Uzbekistan	Deputy Head, Below-Syrdarya BAIS
96	96	Serkayev Makhmud	Uzbekistan	Deputy head of the Amu -Kashkadarin BAIS
97	97	Khudayberdiyev Gayrat	Uzbekistan	First Deputy Chief, Chirchik-Ahangaran BAIS
98	98	Ergashev Shuhratjon	Uzbekistan	First Deputy Chief, Naryn -Karadarya BAIS
99	99	Bychikhina Svetlana	Uzbekistan	CDC "Energy"
100	100	Vasilenko Sergey	Uzbekistan	Officer of SIGMA
101	101	Gulyamov Fazliddin	Uzbekistan	Officer of of the Institute of Strategic and Regional Studies
102	102	Klevtsova Svetlana	Uzbekistan	CDC "Energy"
103	103	Nazarov Azimjon	Uzbekistan	Ltd "Nazar Business and Technology"
104	104	Nevskaya Yuliya	Uzbekistan	Expert, Foundation for Regional Policy
105	105	Nizamov Fakhriddin	Uzbekistan	Senior Expert, Foundation for Regional Policy
106	106	Sayfitdinova Mastura	Uzbekistan	Oliy Majlis
107	107	Talipov Shukhrat	Uzbekistan	Deputy Chairman of the SI "Gosvodkhoznadzor"
108	108	Tolstunov Mikhail	Uzbekistan	Officer of SIGMA
109	109	Mirzayev Rustam	Uzbekistan	Uzbektourism
		The	Executive Comm	ittee of IFAS
110	1	Ibatullin Sagitt	Kazakhstan	Chairman of IC IFAS
111	2	Alfred Diebold	Germany	Technical director of IC IFAS
112	3	Ballyyev Kurbangeldy	Turkmenistan	Member of IC IFAS form Turkmenistan
113	4	Bekniyazov Murat	Kazakhstan	Member of IC IFAS form Kazakhstan
114	5	Kazakov Mavlon	Tajikistan	Member of IC IFAS form Tajikistan
115	6	Ospanov Medet	Kazakhstan	Member of IC IFAS form Kazakhstan
116	7	Sheraliyev Normukhamad	Kazakhstan	Member of IC IFAS form Uzbekistan
			Agency of IF	AS
117	1	Buranov Usman	Uzbekistan	Head of the Agency of IFAS
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N⁰	Nº	Surname	Country	Workplace
118	2	Pernabekov Serik	Uzbekistan	Head of department of the Agency of IFAS
119	3	Gorshkov Yuriy	Uzbekistan	Manager of Water Management issues of the Agency of the IFAS
120	4	Embergenov Jengisbay	Uzbekistan	Deputy head Nukus branch of IFAS
121	5	Nadyrkhanov Ubaydulla	Uzbekistan	Head of department of the Agency of IFAS
		Regior	al Centre of Hyd	rology of IFAS
122	1	Shivareva Svetlana	Kazakhstan	Director of the Regional Centre of Hydrology of IFAS
123	2	Anjelika Domran	Kazakhstan	Expert of the Regional Centre of Hydrology of IFAS
124	3	Lineytseva Anastasiya	Kazakhstan	Expert of the Regional Centre of Hydrology of IFAS
		Regional En	vironmental Cen	ter for Central Asia
125	1	Strikeleva Yekaterina	Kazakhstan	Expert of Regional Environmental Center for Central Asia
			ICWC Secreta	ariat
126	1	Mukhitdinov Khayrullo	Tajikistan	Head of ICWC Secretariat
			BWO "Syrda	rya"
127	1	Khamidov Makhmud	Uzbekistan	Head of BWO "Syrdarya"
			BWO "Amuda	arya"
128	1	Kdyrniyazov Burkitbay	Uzbekistan	Head of BWO "Amudarya"
129	2	Lysenko Oleg	Uzbekistan	Chief Specialist of BWO "Amudarya"
			SIC ICWC	;
130	1	Dukhovny Viktor	Uzbekistan	Director of SIC ICWC
131	2	Sokolov Vadim	Uzbekistan	Deputy director of SIC ICWC
132	3	Umarov Pulat	Uzbekistan	Deputy director of SIC ICWC
133	4	Beglov Iskander	Uzbekistan	Head of Information and Publications Department of SIC ICWC
134	5	Beglov Ferdinand	Uzbekistan	Head of Department of SIC ICWC
135	6	Tulaganov Adkham	Uzbekistan	Head of Training Department of SIC ICWC
136	7	Alimdjanov Akhmedjan	Uzbekistan	Officer of SIC ICWC
137	8	Galustyan Aurika	Uzbekistan	Officer of SIC ICWC
138	9	Kadyrova Raisa	Uzbekistan	Officer of SIC ICWC
139	10	Mirzayev Nazyr	Uzbekistan	Team Leader of SIC ICWC
140	11	Muminov Sherzod	Uzbekistan	Officer of SIC ICWC
141	12	Mukhamedzhanov Shukhrat	Uzbekistan	Team Leader of SIC ICWC
142	13	Obidina Svetlana	Uzbekistan	Team Leader of SIC ICWC
143	14	Abasova Jamilya	Uzbekistan	Officer of SIC ICWC
144	15	Rysbekov Yusup	Uzbekistan	Assistant Director of SIC ICWC
145	16	Sklyarova Maria	Uzbekistan	Officer of SIC ICWC
146	17	Sorokin Anatoliy	Uzbekistan	Head of Department of SIC ICWC
147	18	Sorokin Denis	Uzbekistan	Team Leader of SIC ICWC
148	19	Stulina Galina	Uzbekistan	Head of Department of SIC ICWC
149	20	Umarov Khamdam	Uzbekistan	Consultant of SIC ICWC
150	21	Usmanova Oygul	Uzbekistan	Head of Department of SIC ICWC
151	22	Khaliullina Alfiya	Uzbekistan	Officer of SIC ICWC
152	23	Khorst Mikhail	Uzbekistan	Officer of SIC ICWC
153	24	Eshchanov Odilbek	Uzbekistan	Officer of SIC ICWC
154	25	Yuldasheva Kamila	Uzbekistan	Officer of SIC ICWC
155	26	Yakubov Shavkat	Uzbekistan	Officer of SIC ICWC
156	27	Ruziyev Islom	Uzbekistan	Officer of SIC ICWC
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Nº	N⁰	Surname	Country	Workplace
			World Ban	k
157	1	Croxton Simon	England	World Bank (Kazakhstan)
158	2	Takuya Kamata	Uzbekistan	World Bank
159	3	Khidirov Dilshod	Uzbekistan	Head of the Department of the World Bank in Uzbekistan
			Asian Developme	ent Bank
160	1	Bozakov Plamen	Uzbekistan	Asian Development Bank
161	2	Nasyrov Talat	Uzbekistan	Officer of representation of Asian Development Bank in Uzbekistan
162	3	Talipova Nargiza	Uzbekistan	Employee representation of Asian Development Bank in Uzbekistan
		•	UNDP	
163	1	Anita Nirody	Uzbekistan	Head of the UNDP office in Uzbekistan
		-	e for Preventive I	Diplomacy for Central Asia
164	1	Miroslav Jenca	Slovakia	Head of United Nations Regional Centre for Preventive Diplomacy for Central Asia
165	2	Klimchuk Fyodor	Russia	Deputy head of United Nations Regional Centre for Preventive Diplomacy for Central Asia
166	3	Khudaybergenov Nodyr	Uzbekistan	United Nations Regional Centre for Preventive Diplomacy for Central Asia
			OSCE	
167	1	Khusanov Murod	Uzbekistan	Project Manager of the OSCE
168	2	Jens Rasmussen	Uzbekistan	OSCE Project Coordinator in Uzbekistan
			UNESCO	
169	1	Joop de Schooter	Netherlands	Business Director
170	2	Jose Luis Martin-Bordes	France	Head of the project, UNESCO-IHP
171	3	Osipov Aleksandr	Uzbekistan	Officer of UNESCO
172	4	Jorge Ivan Espinal	Uzbekistan	Mission of UNESCO in Uzbekistan
		Economic	Commission for	Europe (UNECE)
173	1	Bo Libert	Switzerland	UNECE Regional Adviser
			FAO	
174	1	Munoz Giovanni	Turkey	Executive officer of the regional office of FAO
			World Wildlife	Fund
175	1	Loures Flavia	Italy	World Wildlife Fund
		International	Committee on Irr	igation and Drainage
176	1	Gopalakrishnan Mukureswara	India	Secretary-General of International Committee on Irrigation and Drainage
177	2	Gopalakrishnan Sarasfati	India	Officer of International Committee on Irrigation and Drainage
		Inter-Islamic Network on Wate	er Development a	and Management of Water Resources
178	1	Murad Jabay Bino	Jordan	Executive director of Inter-Islamic Network on Water Development and Management of Water Resources
179	2	Sihab Najib Al-Beiruti	Jordan	Head of department services and programs of Inter- Islamic Network on Water Development and Management of Water Resources
		Internatio	onal Water Mana	gement Institute
180	1	Mohan Junna Reddy	Uzbekistan	Head of Representative Office of IWMI in Uzbekistan
181	2	Noble Andrew	Australia	Regional Head, IWMI
182	3	Yakubov Murat	Uzbekistan	Officer IWMI

Nº	Nº	Surname	Country	Workplace
183	4	Zhumaboev Kakhramon	Uzbekistan	Officer IWMI
103	4			
			ICARDA	
184	1	Jozef Turok	Uzbekistan	Head of ICARDA-CAC
185	2	Kai Wegerich	Germany	ICARDA, IWMI Project Specialist
186	3	Islamova Omina	Uzbekistan	ICARDA, IWMI Project Specialist
187 188	4	Karimov Akmal	Uzbekistan Uzbekistan	ICARDA, IWMI Project Specialist ICARDA, IWMI Project Specialist
100	5	Anarbekov Oyture		
			Global Water Par	•
189	1	Ania Grobicki	England	Executive Secretary of GWP
190	2	Danka Talmeynerova	Slovakia	GWP Secretariat
191	3	Babaev Ilkhom	Uzbekistan	GWP CACENA
192	4	Djailoobayev Abdybay	Kyrgyzstan	Chairman of the National Water Partnership Kyrgyzstana
193	5	Kamalov Yusup	Uzbekistan	Global Water Partnership for Central Asia and Caucasus
194	6	Pulatov Yarash	Tajikistan	Director-General of "TadzhikNIIGiM"
		EECCA	Network of Basin	n Organizations
195	1	Manon Cassara	France	Department of capacity-building in EECCA countries
196	2	Bednaruk Sergey	Russia	Director of the Federal State Unitary Enterprise "Center of Russian water works inventory and state water"
197	3	Kizyayev Boris	Russia	Director of VNIIGiM after the name of A.N. Kostyakov
		Germa	n Agency for Coo	operation (GIZ)
198	1	Volker Frobarth	Germany	Program of German Agency for Cooperation (GIZ)
199	2	Koenig Maria	Germany	Deputy head of GIZ
200	3	Rakhmatullayev Shavkat	Uzbekistan	GIZ
		Swiss Agency f	or Development	and Cooperation (SDC)
201	1	Laurent Guye	Kyrgyzstan	Swiss Agency for Development and Cooperation, Director on countries Kyrgyzstan and Uzbekistan
202	2	Olivier Magnin	Uzbekistan	Responsible Mission Specialist SDC in Uzbekistan
203	3	Mirzayev Murat	Uzbekistan	Responsible Mission Specialist SDC in Uzbekistan
204	4	Rogachev Alexandr	Uzbekistan	Responsible Mission Specialist SDC in Uzbekistan
			USAID	
205	1	Barannik Andrey	Kazakhstan	USAID
206	2	Kalashnikov Alexandr	Uzbekistan	USAID
207	3	John Pennel	Uzbekistan	USAID
			Kazakhsta	n
208	1	Orman Anarbek	Kazakhstan	Chairman, Committee on Water Resources of Ministry of Agriculture of the Republic of Kazakhstan
209	2	Jiyenbayev Muslim	Kazakhstan	Expert Committee on Water Resources of the Republic of Kazakhstan
210	3	Abdrakhmanova Gulmira	Kazakhstan	Press Secretary of the Committee on Water Resources of Ministry of Agriculture of Kazakhstan
211	4	Anzelm Karl	Kazakhstan	South Kazakhstan hydrogeological reclamation expedition
212	5	Myrzakhmetov Meldebek	Kazakhstan	Director "Kazagromeliovodhoz"
213	6	Karlykhanov Adylkhan	Kazakhstan	Director of Aral-Syr Darya Basin Inspection
214	7	Seysenov Sembay	Kazakhstan	RSE Yugvodkhoz

N⁰	N⁰	Surname	Country	Workplace		
215	8	Sadykov Bakytjan	Kazakhstan	Association of water utilities and organizations of Kazakhstan		
216	9	Syundyukov Valeriy	Kazakhstan	Association of Water Supply and Sanitation Republic of Kazakhstan «Kazakhstan Su Arnasy"		
217	10	Kaydarova Roza	Kazakhstan	"Kazmehanobr"		
218	11	Kipshakbayev Nariman	Kazakhstan	Director of the Kazakh branch of SIC ICWC		
219	12	Kenshimov Amirkhan	Kazakhstan	Program of UN		
220	13	Alimkulov Sayat	Kazakhstan	LLP "Institute of Geography"		
221	14	Dostay Jakypbay	Kazakhstan	LLP "Institute of Geography"		
222	15	Tolyeubayeva Lidiya	Kazakhstan	LLP "Institute of Geography"		
223	16	Malkovskiy Igor	Kazakhstan	LLP "Institute of Geography"		
224	17	Petrakov Igor	Kazakhstan	LLP "Institute of Geography"		
			Kyrgyzsta	in		
225	1	Uzakbaev Chingysbek	Kyrgyzstan	State Committee for Water Resources and Land Reclamation of the Kyrgyz Republic		
226	2	Sakhvayeva Yekaterina	Kyrgyzstan	Expert of Water Resources Agency		
227	3	Almankulov Azamat	Kyrgyzstan	Representative of Ministry of Foreign Affairs		
228	4	Atakanov Amanjol	Kyrgyzstan	Kyrgyz Scientific - Research Institute for Irrigation		
229	5	Moldobekov Bolot	Kyrgyzstan	Central Asian Institute of Applied Geoscience (CAIAG)		
230	6	Dubanayev Taalaybek	Kyrgyzstan	Water Users Union of Aravan-Akbura channel		
231	7	Karasartov Shayybek	Kyrgyzstan	Director, Community Foundation		
232	8	Mamashukurov Abdilkhamid	Kyrgyzstan	Osh Rural Advisory Service, consultant in agronomy		
233	9	Toktosunov Saparbek	Kyrgyzstan	Osh Rural Advisory Service, Regional Manager		
234	10	Absatarov Abdibait	Kyrgyzstan	Osh Rural Advisory Service, Consultant		
235	11	Mamataliyev Nurgazy	Kyrgyzstan	National Project Coordinator of the "IWRM-Fergana" in the Kyrgyz Republic		
236	12	Koylubayev Abubakr	Kyrgyzstan	Officer of of the "IWRM-Fergana" in the Kyrgyz Republic		
237	13	Usekov Rakhmatillo	Kyrgyzstan	Specialist of WUA Kyrgyz National office of the "IWRM-Fergana"		
			Tajikistar	1		
238	1	Rakhimov Sultan	Tajikistan	First Deputy Minister of Land Reclamation and Water Resources of Tajikistan		
239	2	Khomidov Anvar	Tajikistan	Head of the Department of Hydrometeorology Committee on Environmental Protection		
240	3	Kobuliyev Zaynalobudin	Tajikistan	Institute of Water Problems, Hydropower and Ecology, Academy of Sciences of Tajikistan		
241	4	Abdusaminov Abdukhakim	Tajikistan	Chairman of the Union Canal Water Users Khoja- Bakyrgan		
242	5	Akhmedjanov Rakhimdjon	Tajikistan	Director of the WUA "Obi Ravon Ovchikalacha"		
243	6	Khalimov Inomjon	Tajikistan	Chairman of the WUA "Gulyakandoz"		
244	7	Khashimov Anvar	Tajikistan	Public organization Association of Professional Agro Consultants "Zarzamin"		
245	8	Khomidov Abdulatif	Tajikistan	Manager of the National Office Project "IWRM- Fergana" on Tajikistan		
Turkmenistan						
246	1	Mukhammedov Akhmed	Turkmenistan	Deputy Minister of Water Resources of Turkmenistan		
247	2	Redjepov Arslan	Turkmenistan	Head of the International Water Management Operation Cooperation of the Ministry of Water Resources of Turkmenistan		

N⁰	N⁰	Surname	Country	Workplace		
248	3	Nurmukhammedova Guldjamal	Turkmenistan	Director of the expert-analytical agency «Ynanch- Vepa»		
	Russia					
249	1	Kozlov Dmitriy	Russia	Rector of Moscow State University of Environmental Engineering		
250	2	Boyarkina Oksana	Russia	Water Problems Institute of RAS		
251	3	Peregudov Jon	Russia	Director of VNIIGiM branch		
252	4	Omelyanenko Victor	Russia	National News Agency of "Natural Resources"		
253	5	Prokhorova Nadejda	Russia	Director of the Federal State Unitary Enterprise Russian Research Institute of Integrated Use and Protection of Water Resources		
254	6	Dukhovny Dmitriy	Russia	Public corporation "Seba hygrometry", Moscow		
255	7	Plaksin Igor	Russia	Public corporation "Seba hygrometry", Moscow		
256	8	Medvedev Andrey	Russia	Director of the Autonomous Nonprofit Organization "Center for Political Technologies PolitKontakt"		
257	9	Turetskiy Aleksey	Russia	Public corporation "Business Information Systems"		
258	10	Shatokha Dmitriy	Russia	Public corporation "Business Information Systems"		
			Ukraine			
259	1	Stashuk Vasiliy	Ukraine	Chairman of the Committee for Water Management in Ukraine		
260	2	Trofanchuk Sergey	Ukraine	Seversk-Donets Basin Water Resources		
261	3	Kovalenko Petr	Ukraine	Institute of Hydraulic Engineering and Reclamation		
262	4	Morozov Vladimir	Ukraine	Kherson Agricultural University		
			Belarus			
263	1	Kalinin Mikhail	Belarus	International State Ecological University		
264	2	Rutkovskiy Petr	Belarus	RUE "CRICUWR"		
			Azerbaija	n		
266	2	Mamedov Ayyub	Azerbaijan	Research and Design Institute "Sukanal"		
267	3	Osmanov Teymur	Azerbaijan	Open Joint Stock Company of Irrigation and Water Resources of Azerbaijan		
			Armenia			
268	1	Mesropyan Eduard	Armenia	Director of the Company Ginge		
269	2	Ovsepyan Arevik	Armenia	Director, NGO Water Partnership		
200	_		Georgia			
270	1	Arzumanyan Georgiy	Georgia	Director of the Regional Environmental Center for Caucasus		
271	2	Chkhobadze Nino	Georgia	Board member of the Regional Environmental Center for Caucasus		
272	3	Akhvlediani Aleksandr	Georgia	Professor, Polytechnic University		
			Moldova			
273	1	Trombitskiy Ilya	Moldova	International Environmental Association of River Keepers "Eco-Tiras"		
			Afghanista			
274	1	Amanullah Faqiri	Afghanistan	Kabul Polytechnic University, Dean of the Faculty of Construction		
275	2	Muhammad Hasan Hamid	Afghanistan	Kabul Polytechnic University, Professor		
276	3	Muhammad Qasem Sediqy	Afghanistan	Professor, Co-Chair NHCA		
277	4	Mohammad Nazir Nejabi	Afghanistan	Research Unit NHCA		

N⁰	N⁰	Surname	Country	Workplace
		<u>I</u>	Pakistan	
278	1	Arshad Abbasi	Pakistan	Expert, Institute of sustainable development policies of Pakistan
279	2	Tahir Shamshad	Pakistan	Deputy Mayor of Islamabad
			Turkey	
280	1	Aktas Caner	Turkey	Istanbul International Water Forum
281	2	Ahmet Mete Saatchi	Turkey	Istanbul International Water Forum
282	3	Rezzan Hasanbeseoglu	Turkey	Istanbul International Water Forum
			Austria	
283	1	Katrin Schneider	Austria	Center for Adaptation to Climate Change
			Belgium	
284	1	Joelle Risk	Belgium	West-Eastern Institute
285	2	Sehring Jenniver	Belgium	EUSR Political Adviser for Central Asia
			Hungary	
286	1	Laszlo Kothay	Hungary	International coordinator, VKKI
287	2	Kalman Papp	Hungary	International coordinator, VKKI
			Germany	
288	1	Dernedde Yvonne	Germany	CAWA project
289	2	Katy Unger-Shayesteh	Germany	CAWA project
			Netherland	ls
290	1	Fokkens Bart	Netherlands	European Centre for the restoration of rivers
291	2	Henk van Schaik	Netherlands	Joint Program on Water and Climate Focal Point
			Poland	
292	1	Janusz Kindler	Poland	Warsaw University of Technology
			Finland	
293	1	Makela Ari	Finland	Technical Consultant / Water Center
			France	
294	1	Jean-Fransoise Donzier	France	WWF 6, European Regional Coordinator
295	2	Roussel Pierre Francois	France	Ministry of Sustainable Development, France
296	3	Franck Sanfilippo	France	Expert
297	4	Tom Soo	France	International Association on Water Resources
298	5	Yannick Pochon	France	Manager Project Office for Water Resources
299	6	Paul Haener	France	Head of Department, International Water Agency
300	7	Jacques Barrat	France	Professor, University of Paris Pantheon
301	8	Sophie Nguyen-Khoa	France	Regional Coordinator, WWF 6
302	9	Norman Olivier	France	Project manager
			Scotland	
303	1	Ziganshina Dinara	Scotland	University of Dundee
			USA	
304	1	Karlo Karli	USA	International Potato Center
305	2	Eckstein Gabriel	USA	Professor of Law, Texas Wesleyan University School of Law
		1	Israel	
306	1	Oziranskiy Yuriy	Israel	Head of the Russian department, MASHAV
307	2	Jitzchak Alster	Israel	Advocate, Partner, Shimoni, Alster & Rasiel, Advocates

N⁰	N⁰	Surname	Country	Workplace			
	Representatives of embassies and diplomatic missions						
308	1	Akif Aghaly ogly Aliev	Azerbaijan	Ambassador of the Azerbaijan in the Republic of Uzbekistan			
309	2	Mukhammad Imran	Bangladesh	Ambassador of the People's Republic of Bangladesh in the Republic of Uzbekistan			
310	3	Sokol Igor Sergeyevich	Belarus	Ambassador of Republic of Belarus in the Republic of Uzbekistan			
311	4	Wolfgang Neuen	Germany	Ambassador of Germany in the Republic of Uzbekistan			
312	6	Ahmed Hamed	Egypt	Third Counsellor, Embassy of the Arab Republic of Egypt in the Republic of Uzbekistan			
313	7	Mohamed Abdulkader El Khashab	Egypt	Ambassador of the Arab Republic of Egypt in the Republic of Uzbekistan			
314	9	Hillel Newman	Israel	Ambassador of Israel in the Republic of Uzbekistan			
315	10	Kubanychbekov Chingiz	Kyrgyzstan	First Secretary, Embassy of Kyrgyzstan in the Republic of Uzbekistan			
316	11	Zheksembin Boribay Bikojayevich	Kazakhstan	Ambassador of the Republic of Kazakhstan in the Republic of Uzbekistan			
317	12	Kappasov Temirbek Meirkhanuly	Kazakhstan	First Secretary, Embassy of the Republic of Kazakhstan in the Republic of Uzbekistan			
318	13	Nurjanov Omarbek Nurjanuly	Kazakhstan	Counselor, Embassy of the Republic of Kazakhstan in the Republic of Uzbekistan			
319	15	Zhang Xiao	China	Ambassador Extraordinary and Plenipotentiary ,Embassy of the People's Republic of China in the Republic of Uzbekistan			
320	16	Kim Jong Kook	Korea	Ambassador of South Korea in the Republic of Uzbekistan			
321	17	Hae-Jeong Lee	Korea	Ambassador of South Korea in the Republic of Uzbekistan			
322	18	Chung Dae-Wang	Korea	Ambassador of South Korea in the Republic of Uzbekistan			
323	19	Yunusov Abdulaziz	Malaysia	Embassy of Malaysia in the Republic of Uzbekistan			
324	20	Mohammed Waheed-ul-Hasan	Pakistan	Ambassador of the Islamic Republic of Pakistan in the Republic of Uzbekistan			
325	21	Michalski Jacek	Poland	Third Counsellor ,Embassy of the Republic of Poland in the Republic of Uzbekistan			
326	22	Pshezedzetski Mariann	Poland	Embassy of the Republic of Poland in the Republic of Uzbekistan			
327	23	Strzalkowski Slawomir	Poland	First Counsellor, Embassy of the Republic of Poland in the Republic of Uzbekistan			
328	24	Alin Barbu	Romania	Ambassador of Romania in the Republic of Uzbekistan			
329	25	Andrianov Vladimir Viktorovich	Russia	Consul Ambassador, Embassy of the Russian Federation in the Republic of Uzbekistan			
330	26	Litskai Dmitriy Valerievich	Russia	Second Secretary, Embassy of the Russian Federation in the Republic of Uzbekistan			
331	27	Tyurdenev Vladimir Lvovich	Russia	Ambassador of the Russian Federation in the Republic of Uzbekistan			
332	28	Duane C.Butcher	USA	Ambassador of the United States in the Republic of Uzbekistan			
333	29	Rivera Armando	USA	Embassy of USA in the Republic of Uzbekistan			
334	30	Bruce Hudspeth	USA	Embassy of USA in the Republic of Kazakhstan			
335	31	Makhkamov Mavnondjon	Uzbekistan	Embassy of Tajikistana in the Republic of Uzbekistan			
336	32	Khuseynov Muzaffar	Uzbekistan	Embassy of Tajikistana in the Republic of Uzbekistan			
337	33	Pirmukhamedov Sultan	Turkmenistan	Ambassador of Turkmenistan in the Republic of Uzbekistan			
338	34	Savchenko Yuriy	Ukraine	Ambassador of Ukraine in the Republic of Uzbekistan			
339	35	Shyuved Gennadiy	Ukraine	Advisor to the Ambassador of Ukraine in the Republic of Uzbekistan			
340	36	Gauthier Francois	France	Ambassador of France in the Republic of Uzbekistan			

N⁰	N⁰	Surname	Country	Workplace
341	37	Kopecky Robert	Czech Republic	Ambassador of the Czech Republic in the Republic of Uzbekistan
342	38	Bauty Anne	Switzerland	Embassy of the Swiss Confederation in the Republic of Uzbekistan
343	39	Loytod Anita	Switzerland	Embassy of the Swiss Confederation in the Republic of Uzbekistan
344	40	Asamura Takao	Japan	Second Counsellor, Embassy of Japan in the Republic of Uzbekistan
345	41	Kinoshita Yuya	Japan	Third Counsellor, Embassy of Japan i in the Republic of Uzbekistan
		Rep	resentatives of fo	preign media
346	1	Merezhnikova Nina	Russia	Agency "Interfax"
347	2	Niyazmatov Abu-Ali	Russia	Media, Agency "Ria-News"
348	3	Niyazmatova Madina	Russia	Agency "Regnum"
349	4	Orlov Evgeniy	Russia	ITRC "Mir"
350	5	Ziyamukhamedov Sadriddin	Russia	ITRC "Mir" (operator)
351	6	Mamatkulov Mukhammadsharif	France	Media, Agency "Frants Press"
352	7	Brunero Irina	Belgium	Media, Newspaper "Le Suar"
353	8	Chuyfa Lee	China	Newspaper "Tsintszi Jibao"
354	9	Sevel Mukharemm	Turkey	TV "TRT"
355	10	Saatov Rustam	Turkey	TV "TRT"
356	11	Abdukarimov Bakhtiyor	Turkey	Media, Agency "Anadolu"
357	12	Atif Ala	Turkey	Media, Agency "Jikhan"
358	13	Muhammad Abbas Khan	Kyrgyzstan	Media, Newspaper "Tpy International Business Links"
359	14	Kurbanov Tulanbay	Kazakhstan	Media, Agency "Kabar"
360	15	Samarkhan Kurmat	Kazakhstan	Media, Agency "Kazinform"
361	16	Suleymanov Ruslan	Kazakhstan	Agency "Khabar" (operator)
362	17	Baranova Irina	Azerbaijan	Media, Agency "TREND"
363	18	Kazymova Gulu	Azerbaijan	Media, Agency "AzerTAdj"
364	19	Avazmetov Sherali	Iran	Media, Agency "IRNA"
		Repr	esentatives of na	ational media
365	1	Abdullayev Aziz	Uzbekistan	
366	2	Abdurakhimov Bakhtiyor	Uzbekistan	
367	3	Alibaev Sergey	Uzbekistan	
368	4	Davletova Saida	Uzbekistan	1
369	5	Rasulov Bakhodir	Uzbekistan	
370	6	Rakhmanberdiev Javdat	Uzbekistan	
371	7	Riskiyev Kadyr	Uzbekistan	Office of information program «Akhborot», Teleradiochannel «Ozbekiston»
372	8	Turayev Farkhod	Uzbekistan	
373	9	Khasanov Khaidar	Uzbekistan	1
374	10	Khalimov Abdurozik	Uzbekistan	1
375	11	Shirmukhamedov Dilshod	Uzbekistan	1
376	12	Zikrillaev Asatulla	Uzbekistan	1
377	13	Murotov Mirzo	Uzbekistan	1
378	14	Yuldasheva Mavjuda	Uzbekistan	
379	15	Kalandarov Jamoliddin	Uzbekistan	Office of information program «Davr»,
380	16	Rahimhodjayev Zayniddin	Uzbekistan	Teleradiochannel «Yoshlar»
381	17	Buribekov Nosirbek	Uzbekistan	
382	18	Chepurnova Yelena	Uzbekistan	Information Program «Poytakht»
383	19	Eshboyev Izzat	Uzbekistan	Teleradiochannel «Toshkent»
				1

N⁰	NՉ	Surname	Country	Workplace
384	20	Esanova Dilfuza	Uzbekistan	NTT Uzbekistan
385	21	Mukhammedov Nosir	Uzbekistan	
386	22	Umarova Iroda	Uzbekistan	
387	23	Umarova Madina	Uzbekistan	
388	24	Yokubov Askar	Uzbekistan	National Information Agency of Uzbekistan (UzA)
389	25	Ivanova Anna	Uzbekistan	National Information Agency of Ozbekistan (OZA)
390	26	Turakulov Olim	Uzbekistan	
391	27	Manzurova Nodira	Uzbekistan	
392	28	Teshayev Andrey	Uzbekistan	Newspaper "Narodnoye slovo"
393	29	Ortikov Shavkat	Uzbekistan	
394	30	Akramov Bakhtiyor	Uzbekistan	Newspaper "Khalk suzi"
395	31	Makhsumov Saidjon	Uzbekistan	
396	32	Voyakina Alesya	Uzbekistan	Newspaper "Pravda Vostoka"
397	33	Zaynutdinova Dildora	Uzbekistan	
398	34	Staytyunayte Lyudmila	Uzbekistan	Newspaper «Uzbekistan Today»
399	35	Kharitonov Valeriy	Uzbekistan	
400	36	Toshnazarov Bakhtiyor	Uzbekistan	Journal "Agriculture of Uzbekistan"
401	37	Norbekov Olim	Uzbekistan	Journal Agriculture of Ozbekistan
402	38	Kulmuradov Anvar	Uzbekistan	Newspaper "Kishlok Khayot"
403	39	Ilyasov Anvar	Uzbekistan	
404	40	Bektemirova Nargiza	Uzbekistan	lafe muchten Annen villelde enllung den Minister of
405	41	Shukurov Gayratilla	Uzbekistan	Information Agency "Jakhon" under Ministry of Foreign Affairs of Uzbekistan
406	42	Pirnafasov Bektemir	Uzbekistan	
407	43	Mamajanov Bakhodir	Uzbekistan	