Interstate Commission for Water Coordination in Central Asia

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## RESOLUTION OF THE UN GENERAL ASSEMBLY A/RES/69/215 INTERNATIONAL DECADE FOR ACTION, "WATER FOR LIFE", 2005-2015, AND FURTHER EFFORTS TO ACHIEVE THE SUSTAINABLE DEVELOPMENT OF WATER RESOURCES

[on the report of the Second Committee (A/69/468/Add.1)]

The General Assembly,

*Recalling* its resolutions 47/193 of 22 December 1992 on the observance of World Day for Water, 55/196 of 20 December 2000, by which it proclaimed 2003 the International Year of Freshwater, 58/217 of 23 December 2003, by which it proclaimed the International Decade for Action, "Water for Life", 2005–2015, to commence on World Water Day, 22 March 2005, 59/228 of 22 December 2004, 61/192 of 20 December 2006, by which it proclaimed 2008 the International Year of Sanitation, 64/198 of 21 December 2009 on the midterm comprehensive review of the implementation of the Decade, 65/154 of 20 December 2010, by which it proclaimed 2013 the International Year of Water Cooperation and 67/204 of 21 December 2012 on the implementation of the International Year of Water Cooperation, 2013,

*Recalling also* its resolution 68/309 of 10 September 2014, in which it welcomed the report of the Open Working Group on Sustainable Development Goals and decided that the proposal of the Open Working Group contained in the report shall be the main basis for integrating sustainable development goals into the post-2015 development agenda, while recognizing that other inputs will also be considered, in the intergovernmental negotiation process at the sixty-ninth session of the General Assembly,

*Noting* that in its report<sup>1</sup> the Open Working Group proposes a goal of ensuring the availability and sustainable management of water and sanitation for all,

*Recalling* its resolution 68/157 of 18 December 2013 on the human right to safe drinking water and sanitation, and the relevant resolutions of the Human Rights Council, including resolutions 24/18 of 27 September 2013<sup>2</sup> and 27/7 of 25 September 2014,<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> A/68/970 and Corr.1

<sup>&</sup>lt;sup>2</sup> See Official Records of the General Assembly, Sixty-eighth Session, Supplement No. 53A (A/68/53/Add.1), chap. III.

<sup>&</sup>lt;sup>3</sup> Ibid., Sixty-ninth Session, Supplement No. 53A and corrigendum (A/69/53/Add.1 and Corr.1), chap. IV.



*Recalling also* Economic and Social Council resolution 1980/67 of 25 July 1980 on international years and anniversaries, the annex to which includes agreed guidelines and criteria for the proclamation of international years, and General Assembly resolutions 53/199 of 15 December 1998 and 61/185 of 20 December 2006 on the proclamation of international years,

*Recalling further* the Rio Declaration on Environment and Development<sup>4</sup> and all its principles, Agenda 21,<sup>5</sup> the Programme for the Further Implementation of Agenda 21,<sup>6</sup> the Johannesburg Declaration on Sustainable Development,<sup>7</sup> the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation),<sup>8</sup> the outcome document of the high-level plenary meeting of the General Assembly on the Millennium Development Goals<sup>9</sup> and the commitments made therein and the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want",<sup>10</sup>

*Recognizing* that water is at the core of sustainable development, that it is critical for the eradication of poverty and hunger, and that it is indispensable for human health and well-being and central to achieving the Millennium Development Goals and other relevant internationally agreed goals in the economic, social and environmental fields,

*Reaffirming* the internationally agreed development goals on water and sanitation, including the Millennium Development Goals, and noting that there has been progress in halving by 2015 the proportion of the population without sustainable access to safe drinking water,

*Noting* that accelerated efforts are needed to halve the proportion of the population without sustainable access to basic sanitation by 2015, and to develop integrated water resources management and water efficiency plans at all levels, and in this regard acknowledging the importance of cooperation at all levels, including support to developing countries, for the achievement of these goals,

*Noting also* national, regional and international efforts to implement the International Year of Sanitation, 2008, the International Year of Water Cooperation, 2013, and the International Decade for Action, "Water for Life", 2005–2015, and numerous recommendations from international and regional water and water-related events, with a view to taking concrete actions to accelerate progress at all levels towards achieving the internationally agreed water-related goals contained in Agenda 21, the Programme for the Further Implementation of Agenda 21, the United Nations

<sup>&</sup>lt;sup>4</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex I.

<sup>&</sup>lt;sup>5</sup> Ibid., annex II.

<sup>&</sup>lt;sup>6</sup> Resolution S-19/2, annex

<sup>&</sup>lt;sup>7</sup> *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August–4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 1, annex.

<sup>&</sup>lt;sup>8</sup> Ibid., resolution 2, annex

<sup>&</sup>lt;sup>9</sup> Resolution 65/1.

<sup>&</sup>lt;sup>10</sup> Resolution 66/288, annex.



Millennium Declaration,<sup>11</sup> the Johannesburg Plan of Implementation and the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want",

*Noting further* the holding of the sixth World Water Forum in Marseille, France, from 12 to 17 March 2012, and noting that the seventh World Water Forum will be held in Daegu and Gyeongbuk, Republic of Korea, from 12 to 17 April 2015,

*Noting* that the Third World Conference on Disaster Risk Reduction will be held in Sendai, Japan, from 14 to 18 March 2015, where the issue of integrated water resources management will be discussed, among other issues,

*Noting also* the World Water Development Reports, a joint project of United Nations agencies and entities,

1. *Takes note* of the reports of the Secretary-General;<sup>12</sup>

2. *Welcomes* the activities related to water undertaken by Member States, the United Nations Secretariat and organizations of the United Nations system, inter alia, through inter-agency work, as well as contributions from major groups, for the observance of the International Year of Sanitation, 2008, the International Year of Water Cooperation, 2013, and the International Decade for Action, "Water for Life", 2005–2015;

3. *Encourages* Member States, the Secretariat, organizations of the United Nations system through their coordination mechanisms, including UN-Water, and major groups to accelerate their efforts to achieve the internationally agreed water-related goals contained in Agenda 21,<sup>5</sup> the Programme for the Further Implementation of Agenda 21,<sup>6</sup> the United Nations Millennium Declaration,<sup>11</sup> the Johannesburg Plan of Implementation<sup>8</sup> and the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want";

4. *Invites* the President of the General Assembly to convene during the week following World Water Day on 22 March 2015 a one-day high-level interactive dialogue of the sixty-ninth session of the Assembly in New York on a comprehensive review of the progress achieved in the implementation of the Decade, including the best practices and lessons learned relevant to the achievement of sustainable development;

5. *Welcomes* the offer of the Government of Tajikistan to host and fund, in June 2015, a high-level international conference on the implementation of the Decade, as a contribution to the comprehensive review of the Decade;

6. *Stresses* the importance of the full involvement of all relevant stakeholders, including women, children, older persons, persons with disabilities, indigenous peoples and local communities, in the implementation of the Decade at all levels and, as appropriate, in its comprehensive review;

<sup>&</sup>lt;sup>11</sup> Resolution 55/2

<sup>&</sup>lt;sup>12</sup> A/65/297 and A/69/326.



7. *Invites* the Secretary-General, in cooperation with UN-Water, the specialized agencies, the regional commissions and other organizations of the United Nations system, to engage, as appropriate, in the comprehensive review of

8. *Requests* the Secretary-General to report to the General Assembly at its seventy-first session on the implementation of the present resolution elaborating, inter alia, on the evaluation of the Decade, in accordance with Economic and Social Council resolution 1980/67.

75<sup>th</sup> plenary meeting 19 December 2014



### HIGH-LEVEL INTERNATIONAL CONFERENCE ON THE IMPLEMENTATION OF THE INTERNATIONAL DECADE FOR ACTION "WATER FOR LIFE", 2005-2015

On the 9-10th of June 2015, the High-Level International Conference on the Implementation of the International Decade "Water for life" was held in Dushanbe. About 1900 participants from more than 100 countries and 80 organizations took part at the meeting.

The Conference was organized in form of two plenary sessions, two high-level panels on discussion of the Ware Decade Implementation, six high-level round tables on further activities "Water Beyond" and nine parallel sessions. Also, Women Water Forum, Children Water Forum, Water Forum of Mountainous Countries, and Water Forum of Least Developed Countries and Small Island Developing States were organized.

At the opening ceremony, the participants were welcomed by the President of the Republic of Tajikistan Emomali Rahmon, the UN Secretary General Ban Ki-moon, UNDP Administrator Helen Clark, Prime Minister of Pakistan, the Head of Afghanistan Government, Prime Minister of the Kyrgyz Republic, Prime Minister of Gabon, First Deputy Prime Minister of Kazakhstan, Deputy Chairman of the Cabinet of Ministers of Turkmenistan.





**The President of Tajikistan** E. Rahmon, in particular, noted that the national hydropower development and food security provision are amid the national strategic objectives. He added that issues of water, power, food, and environment in Central Asia are tightly interlaced and their solving requires a comprehensive approach. The resources available in the region – provided they are developed in a rational and efficient way – are quite enough to cover increasing needs of population and economies of the countries and contribute to food and energy security. In this context, construction of new infrastructure with application of new technologies in the water and power sphere is undoubtedly important and crucial for further solution of these issues. The Republic of Tajikistan is committed to mutually beneficial and appropriate cooperation in the sphere of water resources on the basis of principles of mutual respect, good-neighborliness and mutually beneficial partnership. E. Rahmon proposed to the world community a new initiative of Tajikistan – announce the new International Decade for Action "Water for Sustainable Development".



During his speech at the plenary meeting, the First Deputy Prime Minister of the **Republic of Kazakhstan** B. Sagintaev mentioned that for the recent decade Kazakhstan has been developing a regulatory and legal basis for water issues, started a large-scale "green economy" transition project, adopted the National Water Resources Management Program, and is taking actions on the Aral Sea saving. Kazakhstan proposed to take a number of regional-wise activities to improve the water situation in Central Asia, the followings are amid them:



- hold a meeting of the Council of Heads of the Member States of the International Fund for the Aral Sea Saving, or a Water Summit with involvement of large donors and experts;
- establish a Central Asian Investment Fund on implementation of water projects and a Regional Center of Water security;
- jointly develop and sign the Pact on water and environmental security in Central Asia;
- create a new open system for sharing hydrological data, and in this connection, adopt a pentalateral agreement, which would allow for operative exchange of information and coordinated decisions on water quality;
- improve performance of the Interstate Commission for Water Coordination and the basin water organizations Syrdarya and Amudarya.

**Turkmenistan**'s position was voiced by the Deputy Chairman of the Cabinet of Ministers of Turkmenistan Annageldy Yazmuradov, the basis of his speech were the proposals put forward by the President of the country at the 7th World Water Forum, which was held in April 2015 in Korea. In particular, it was emphasized that today water problems cannot be considered in isolation from the global development agenda, environmental and food security, the integrated system of sustainable energy to be established. In Central Asia, water is an important development factor, and regional consensus is the only acceptable platform for efficient relationships between the states. Turkmenistan consistently advocates such approach, where water and of water and energy issues in Central Asia are addressed and resolved on the basis of universally recognized international legal norms, mutual respect and consideration of interests of all states in the region and with the participation of international organizations. He also mentioned the proposal of the President of Turkmenistan on the need to prepare a comprehensive document - the Water Strategy of the United Nations.

The Prime Minister of the **Kyrgyz Republic** T. Sariev, when presenting his country's position in water sphere, emphasized that water resources and energy are inextricably linked and are inseparable from each other. He also mentioned the basic position of Kyrgyzstan regarding the construction of Kambarata HPPs, which, according to him, would resolve an issue of the acute shortage of water during the growing season and allow for switching the Toktogul from the power generation mode to the irrigation one, so the downstream country should be interested in these projects. In his opinion, hydropower is an important factor for sustainable development. All the programs and projects implemented in Central Asia should address water and energy issues in a single package. Water is an economic resource. The existing practice in the region does not ensure interests of all the countries, and the upstream countries do not receive compensation for accumulation and regulation of water resources. According to T. Sariev, the issue of accession to the global water conventions is politicized and the proper emphasis is not made on compliance with their provisions. The Agreement



1998 was signed by the four countries, but was not followed. As a positive example, he mentioned about the implementation of the Agreement on the Chu-Talas. He also noted that the activity of the International Fund for the Aral Sea Saving was not efficient and the Fund should be reformed. In this context, the countries should consult and negotiate. Also there is an important role for the UN in this issue.

The Deputy Minister of Agriculture and Water Resources of the **Republic of Uzbekistan** and the Acting Chairman of the Executive Committee of IFAS Sh. Khamraev noted in his speech the work carried out in the country to ensure water security, improve the water management system, adopt the mechanisms to encourage water saving, promote water conservation technologies. Sh. Khamraev emphasized that all actions on transboudary rivers should be based on the norms and principles of international law and do not break the fragile water and ecological balance in the region through the construction of new large hydraulic structures.

During the **first high-level panel**, the regional perspectives under implementation of the Water Decade were addressed. The point view from Central Asia was represented by the Acting Chairman of EC IFAS Sh. Khamraev.

The sum-up of the panel was presented at the closing meeting and included the following aspects. Over the past decade, huge experience was accumulated at the national level, progress in access to water was achieved, but significant challenges on sanitation remained. The impact of climate change is felt. There are many problems, but also many opportunities to work together for the realization of common objectives. The further need for IWRM and the water, energy, food and ecosystems nexus were mentioned. There is the critical importance of the transboundary water cooperation on the basis of international law, including the Water Conventions. "Political involvement" through conferences, seminars and other events should be ensured. The need for a clear work plan for the implementation of the next decade exists.

The **second high-level panel** discussed the progress, achievements, best practices and lessons learned during the implementation of the Water Decade. The generalized results of the panel reported at the final plenary session are as follows: changes made in our behavior through work on strengthening trust and establishing cooperation, as well as acquiring new knowledge are obvious. The progress was made in the process of involving stakeholders, in particular the public and the private sector. There is a need for improvement of governance, financing and public participation. The Decade has contributed to improved access to water and sanitation, increased focus on IWRM and water cooperation through promotion of and activities under the Water Conventions, as well as allowed improving coordination between agencies. It created opportunities for integrating water into Sustainable Development Goals, but when these goals would be adopted at the end of this year, we would also need certain process for their implementation and monitoring.









#### High level round tables

#### HLRT 1: Water Beyond 2015: Water and Sanitation

The generalized results of the panel reported at the final plenary session: it is necessary to promote widely sanitation issues at the international and national levels. What is important is not just access to basic sanitation, but catching and recycling waste water. There is a need to work more actively with sectors of public health, education, and environment. Accessible sanitation is not always the desired sanitation, so we need to work on further improvement of our approaches and technologies.

## HLRT 2: Water Beyond 2015: The Water-Energy-Food-Environment Nexus

The Deputy Minister of Agriculture and Water Resources of the Republic of Uzbekistan Shavkat Khamraev made a report stressing that stability and uniformity of water supply should be the cornerstone in the water, energy, food and ecosystem nexus for the two major transboundary river basins in the region - the Amudarya and the Syrdarya. He informed the participants on the ongoing measures undertaken in Uzbekistan to improve water and land management, which can serve as a concrete example of linking the water, food and environment to increase welfare of the population and improve the environmental conditions. Khamraev Sh. also noted the importance of water cooperation. Uzbekistan, as the Chairman in IFAS, is taking all necessary measures to further strengthen water cooperation in the region, intensify efforts to attract the world community's attention to the above nexus problems as part of solving the global problems of the Aral Sea basin. He also supported the example of small hydropower development, which was presented by Turkey.

The generalized results of the panel reported at the final plenary session are as follows: the roundtable provided the examples from different organizations and countries on such issues as ecosystem services, food security (ICID), small hydropower (Turkish Institute), and water conservation (Uzbekistan). The complicated situation is observed regarding the use of transboundary waters, therefore development of shared infrastructure, data and information sharing, monitoring, capacity-building of river water management organizations, assessment of nexus capabilities, water for food production through increased land productivity are required.

The representative of SIC ICWC took the floor during discussion. She noted that most of the meetings that address the issues related to water, energy, food, and environment nexus are held with involvement of the water sector only, with the consequent effect on the results of such meetings. She also noted a need for greater attention to concrete actions and measures on the nexus that can serve as a guide for others. For example, at this session, successful examples from Turkey (small hydro) and Uzbekistan (water conservation, IWRM) were presented. Sustainable development indicators on water cooperation, inter alia, should be based on the provisions of international law and take into account specific conditions of countries and regions.



At the end of the high-level round table "Water-Energy-Food-Environment Nexus", the Director of the Institute of Water Problems and Hydropower at the National Academy of Sciences of the Kyrgyz Republic E. Mamatkanov took the floor. Mr. Mamatkanov said that he had no questions or comments to the speakers, but he wants to make a statement. The essence of his statement was as follows. Water is a commodity, the use of which implies costs to be borne by all water users. The upstream countries are in the infringed position regarding the use of water resources in the region, although the lion's share of river runoff in the region is generated there. A new strategy of water allocation in Central Asia has not been developed, and the issue of new water quotas taking into account the nowadays realities is not solved. In addition, the downstream countries have to pay for water storage and flow regulation, including the costs related to collecting and processing of data, of monitoring glaciers and other activities for water management.

## HLRT 3: Water Beyond 2015: Global Challenges from a Water Perspective

The generalized results of the panel reported at the final plenary session are as follows: global challenges, the imbalance between the rich and the poor, the particular vulnerability of mountain countries, the introduction of instruments for payment for eco-services. The need for regulatory instruments, which allow for holistic and integrated approaches.

#### HLRT 4: Water Beyond 2015: Financing and Governance

The generalized results of the panel reported at the final plenary session are as follows: How to improve water resources management through financing and governance; the importance of gender equality; use of tariffs and development of new financial mechanisms has shown good results in many countries; the long-term vision and corruption control in the finance sector; water supply services.

## HLRT 5: Water Beyond 2015: Water Cooperation as Catalyst to Achieve Water Related Goals

The generalized results of the panel reported at the final plenary session are as follows: the important role of data and information; the role of science (science diplomacy, science can cross many borders); the role of the media and women; the role of local knowledge; the need to invest in joint projects. Focus on common goals and objectives. Water management is the key to success. The important role of institutions. Water diplomacy would help policy makers and population to get insight into the water issues. Diplomats can play a greater role in promoting cooperation. Use of water diplomacy for intersectoral collaboration.



In his speech, Sh. Khamraev noted the critical importance of water cooperation on the basis of norms and principles of international law. In response to the criticism made at the plenary session by the Prime Minister of the Kyrgyz Republic regarding the activities of the IFAS, Sh. Khamraev stressed that the existing regional structure of IFAS demonstrated its viability during its functioning. This mechanism of environmental and water cooperation enables the countries to address the key issues related to environmental protection, mitigation of the Aral Sea crisis, management and allocation of transboundary water resources. He noted that before creating new things, you should not destroy the old things, and the countries need to work to strengthen the structures of IFAS, in particular, the two BWOs. Sh. Khamraev disagreed with the thesis made at the roundtable that water is a political resource. He noted that water is the common heritage and water-related issues should not be politicized but there is need to efficiently resolve the existing problems in water resources management. The region implemented various projects to improve water management, including with the assistance of international partners such as, for example, UNECE and the Swiss Agency for Development and Cooperation. It is important that all international partners take this into account and be particularly careful in their statements so that the water diplomacy could bring effective results. All actions should be implemented based on detailed analysis and comprehensive assessments, not allegations.

During the discussions, D. Ziganshina thanked the speakers for promotion of water cooperation and diplomacy ideas. She noted the importance of all actions in this direction within the framework of international law, which considers cooperation as an obligation for the countries. But it is important to understand the international law not just as a set of rules, but as a system of legal relations, which should be built in the name of peace and security. Regarding water diplomacy, it would be desirable to add to the role of science the role of technology, which plays a key role in the water sector. The U.S. State Department representative truly noted the importance of joint regional water projects, but, unfortunately, their number is going down in the region.

#### HLRT 6: Water Beyond 2015: Strengthening an Integrated Approach Towards Water Related SDGs

The generalized results of the panel reported at the final plenary session are as follows: the Sustainable Development Goals should be addressed for the benefit of people; urgent action is needed in the water sector for climate change mitigation; the role of women in the development and implementation of the Sustainable Development Goals; the transboundary aspect of IWRM; lookahead beyond the water sector and the use of the nexus approach; accountability and corruption control; networking the outcomes of the World Water Forum in Korea, processes of the Water Decade and the Sustainable Development Goals.



#### Side events

In the second half of the first day nine side events were held.

- SE 1: Informal Consultation on the Newly Proposed International Decade for Action "Water for Sustainable Development"
  - SE 2: Water and wastewater industry in the Middle East and Central Asia
  - SE 3: Education for sustainable water management
  - SE 4: Customs and culture of the Central Asian people on the use of water resources
  - SE 5: Promoting the Sustainable Development Goals: role of regional institutions
  - SE 6: Women as agents of change in water: Reflections on experiences from the field
  - SE 7: Facilitation of transboundary water co-operation: new developments
  - SE 8: The Critical Importance of Water for Sustainable Development and the SDGs
  - SE 9: Japanese international cooperation in the water sector and experience of water resource management

The Conference was closed with signing the Declaration.

D. Ziganshina Photo – "Khovar" News Agency (www.khovar.tj)







### DECLARATION OF THE HIGH LEVEL INTERNATIONAL CONFERENCE ON THE IMPLEMENTATION OF THE INTERNATIONAL DECADE FOR ACTION "WATER FOR LIFE", 2005-2015

We, representatives of governments, international organizations, local governments and civil society met in Dushanbe, Tajikistan, between 9 and 10 June 2015 at the High Level International Conference on the implementation of the International Decade for Action "Water for Life", 2005-2015.

In furtherance of United Nations General Assembly Resolution A/69/215 entitled "International Decade for Action, 'Water for Life', 2005-2015, and further efforts to achieve the sustainable development of water resources", this Conference aimed at evaluating progress achieved in the implementation of the Decade and at continued progress for achieving internationally agreed water-related goals using a comprehensive approach.

This Conference builds on the outcomes of previous events, particularly the 2010 High-Level International Conference on midterm comprehensive review of the implementation of the International Decade for Action "Water for Life", 2005-2015, held in Dushanbe, 2012 Rio+20 United Nations Conference on Sustainable Development, the 2015 UN-Water Annual International Zaragoza Conference, the High Level Interactive Dialogue in the framework of the Sixty-Ninth Session of the United Nations General Assembly, the Seventh World Water Forum held in Daegu and Gyeongju and the Third United Nations World Conference on Disaster Risk Reduction held in Sendai, as well as the outcomes of the International Year of Water Cooperation, 2013. In doing so,

*We salute* the momentum gained and important achievements made during the Water for Life Decade and the role that the Decade has played in facilitating the achievement of the internationally agreed water-related goals and particularly Millennium Development Goals;

*We express appreciation* for the role of the United Nations for its support to the development and implementation of the Decade and for setting up mechanisms through UN-Water, such as the UN-Water Decade Programmes, and for utilizing existing instruments, such as the World Water Development Reports and UNSGAB, that proved to be effective and reliable tools and contributed to the achievements of the Decade;

*We acknowledge* that much progress has been achieved during the Decade, particularly in terms of implementation of integrated water resources management plans, water cooperation, level of project implementation, the involvement of women



as important stakeholders and the development of the global water community, and specifically on monitoring, private sector involvement, knowledge, advocacy, awareness raising, intergovernmental and interagency coordination in a UN context and stakeholder participation, which has been facilitated by improved knowledge and advocacy raising efforts on specific Decade themes;

We acknowledge that today the water community is less fragmented and more able to engage in a coordinated manner, but that there are several gaps, including, inter alia, the need to develop Water Efficiency Plans and to address emergent water issues such as water-related disasters and water environment problems including waste water management, that resulted from discussions about the implementation of the Decade from national, regional and global perspectives, as well as from discussions about progress and achievements, lessons learned and best practices;

We express concern that sanitation still lags behind despite improvements made since the International Year of Sanitation 2008 and the "Sustainable Sanitation: 5-Year Drive to 2015"; also, the drinking water target has not been achieved evenly within and across urban and rural areas, large and small countries, richer and poorer households, households and non-household settings, gender and age group and there is huge variability in terms of water quality, affordability, efficiency, capability and durability of both management and infrastructure;

We *are convinced* that to keep the momentum gained, to fill the gaps that emerged during the Decade, as well as to contribute to the achievement of internationally agreed water-related goals, including the water-related goals and targets proposed by the Open Working Group on Sustainable Development Goals of the United Nations General Assembly, requires renewed, additional and sustained efforts of the international community;

*We consider* of primary importance to fully achieve internationally agreed drinking water and sanitation targets in a sustainable manner, to promote the respect of human rights obligations to safe drinking water and sanitation recognized by the United Nations General Assembly in 2010, and to focus our efforts on this key driver of human development, health and well-being, because inadequate water and sanitation services still pose a huge toll on health, particularly diarrheal disease; it is essential to aim for universal sustainable access to safe drinking water and sanitation services in all homes, schools, health centers and workplaces;

*We exhort* the international community to promote green economy in a context of sustainable development and poverty eradication and identify solutions along the water-food-energy-environment nexus through multipurpose and integrated water resources planning and management that also takes mining, extractive industries and tourism into consideration, to better understand and work for common answers and results to handle scarce water resources;

*We encourage* promoting measures that tackle global challenges, such as poverty, biodiversity loss, emerging diseases, humanitarian crises, urbanization, the impacts of natural disasters, food security, climate change, as well as small island and mountain development, which affect and are affected by water resources; adaptation to



climate change through water is of particular importance for global discussion and actions including in COP 21 in Paris in December 2015;

*We stress* the importance of financing and governance, considering the impact of the financial and economic crisis that hit several countries, the challenges emanating from increased population, rapid urbanization and improved income levels, the difficulties of all countries, particularly Least Developed Countries and Small Island Developing States, the need for improved water resource governance and legal frameworks to ensure much needed sustained investment and financing, as well as the importance to provide efficient and transparent financial mechanisms to support civil society initiatives;

*We also acknowledge* the importance of water cooperation across sectors and at all levels, including transboundary, as one of the conditions to achieve water related goals, socio-economic growth and prosperity and public health and the important role of multilateral and bilateral arrangements, basin institutions, including aquifers, and other cooperative institutional platforms to catalyze action;

*We highlight* the importance of implementing and monitoring the proposed water-related aspects of the Post-2015 Development Agenda in a comprehensive, integrated and inclusive manner;

*We acknowledge* that governments have the responsibility to ensure the sustainable management of water resources while taking into account competing demands and the interests of other stakeholders; it is important therefore to encourage stronger dialogue, as appropriate, and meaningful stakeholder participation at the local, national and international levels with the involvement of all relevant stakeholders including women and children;

*We take note* that improvements as far as water is concerned often require long term planning, mobilization of financial resources, implementation and management, as well as, inter alia, the promotion of integrated water resources management, risk management in water supply from catchment to consumer, improved scientific understanding of water resources, technology sharing, capacity building of human resources and institutional structures, education and training, better shared and open data and indicators disaggregated by marginalized groups, particularly for women and children;

*We encourage* governments and other stakeholders to consider the outcomes of the high level plenary sessions, implementation panels, post-2015 round tables, side events and pre-conference events of this Conference, to be reported in the Chair's Summary, and to translate, to the extent possible, the visions contained therein for the post-2015 water agenda into concrete actions;

Moreover, *we urge* the international community to launch new initiatives to support the implementation of the proposed dedicated water goal in the Post-2015 Development Agenda; address emergent water issues; improve planning, coordination and implementation of water-related actions by the UN system; and consider the potential for a new International Decade for Action "Water for Sustainable



Development" proposed by Tajikistan at the Seventh World Water Forum in Korea to keep the momentum gained during the Water for Life Decade;

Finally, *we express* our sincere appreciation to the Government of Tajikistan for hosting this Conference and for the warm welcome and generous hospitality extended to all participants and recommend the Government of Tajikistan to submit this Declaration accompanied by the Chair's Summary of the Conference to the United Nations General Assembly.

Dushanbe, Tajikistan 9-10 June 2015

### ANALYSIS OF WATER-MANAGEMENT SITUATION IN THE SYRDARYA AND THE AMUDARYA RIVER BASINS OVER THE NON-GROWING SEASON 2014-2015

#### 1. Syrdarya River Basin

The actual inflow to upper reservoirs in the Syrdarya River Basin (Toktogul, Andizhan, Charvak reservoirs) was 5.61 km<sup>3</sup> or 118% of the forecast during the nongrowing season. The actual water release from the reservoirs was 11.4 km<sup>3</sup>.

Total lateral inflow in the reach from the Toktogul reservoir to the Shardara reservoir, including water discharged along the Karadarya and the Chirchik rivers, was 10.6 km<sup>3</sup>, i.e. 1.9 times more than the total inflow to upper reservoirs.

By the end of the non-growing season, 7.95 km<sup>3</sup> were accumulated in upper reservoirs, including 6.41 km<sup>3</sup> or 87% of BWO Syrdarya's scheduled amount in the Toktogul reservoir.

The inflow to the Toktogul reservoir was 2.89 km<sup>3</sup>. Water releases from the reservoir amounted to 8.4 km<sup>3</sup>, i.e. 1.89 km<sup>3</sup> more than BWO's scheduled amount. The comparison of water releases from the Toktogul reservoir for the non-growing season with water accumulation in the reservoir by the beginning of the growing season over1992-2015 (Figure 1) indicates to steady trends towards decrease of water volume by the beginning of the growing season and increase of water releases over the non-growing season. On average, water releases for the non-growing season increased by 2 km<sup>3</sup> over 1991-2015.

Total water withdrawal from the Naryn and the Sydarya (up to the Shardara reservoir) for the non-growing season was 3.17 km<sup>3</sup>, including 0.021 km<sup>3</sup> for the Kyrgyz Republic, 0.024 km<sup>3</sup> for the Republic of Tajikistan, 0.404 km<sup>3</sup> for the Republic of Kazakhstan (along the Dustlik canal), and 2.7 km<sup>3</sup> for the Republic of Uzbekistan.

Water supply was non-uniform among the states and river reaches and irregular in time (Table 1.1 and data from the web-site <u>www.cawater-info.net/analysis/</u>).

The total inflow to the Shardara reservoir for the non-growing season 2014-2015 was 11.43 km<sup>3</sup>, i.e. 1.19 km<sup>3</sup> more than BWO's scheduled amount. The total water release into the river from the Shardara reservoir was 8.32 km<sup>3</sup>, 0.17 km<sup>3</sup> into the Kyzylkum canal and 0.12 km<sup>3</sup> into Arnasay.

The actual supply to the Aral Sea was  $3.24 \text{ km}^3$  (according to the Hydromet's data as of 1.04.2015).

River channel water balance is shown in Table 1.2 and water balances of the reservoirs – in Table 1.3.



#### Table 1.1

### Water availability in the Syrdarya River Basin riparian countries for the non-growing season 2014-2015

Water user	Water volume, km <sup>3</sup>		Water availability, %	Deficit (-), surplus (+), km <sup>3</sup>	
water user	quota/ schedule	actual	season	season	
Total water withdrawal	3.308	3.167	96	-0.14	
by state:					
Kyrgyz Republic	0.037	0.021	56	-0.02	
Republic of Uzbekistan	2.496	2.718	109	0.22	
Republic of Tajikistan	0.368	0.024	7	-0.34	
Republic of Kazakhstan	0.407	0.404	99	0.00	
by river reach:					
Toktogul reservoir – Uchkurgan hydroscheme	1.36	1.35	99	-0.02	
Of which:					
Kyrgyz Republic	0.030	0.017	58	-0.013	
Republic of Tajikistan	0.084	0.000	0	-0.084	
Republic of Uzbekistan	1.252	1.297	104	0.045	
Uchkurgan hydroscheme - Kayrakkum hydroscheme	0.25	0.18	72	-0.070	
Of which:					
Kyrgyz Republic	0.0071	0.0033	47	-0.004	
Republic of Tajikistan	0.0686	0.0006	1	-0.068	
Republic of Uzbekistan	0.1710	0.1731	101	0.002	
Kayrakkum hydroscheme – Shardara reservoir	1.67	1.66	99	-0.01	
O which:					
Republic of Kazakhstan	0.4000	0.4006	100	0.00	
Republic of Tajikistan	0.2124	0.0238	11	-0.19	
Republic of Uzbekistan	1.0605	1.2396	117	0.18	
Inflow to the Shardara reservoir	10.24	11.43	112	1.19	
Discharge into Arnasay	0.00	0.12		0.12	
Water supply to the Aral Sea	2.49	3.24	130	0.75	



Water user	Water user		Water availability, %	Deficit (-), surplus (+), km <sup>3</sup>
water user	quota/ schedule	actual	season	season
(Karateren gauging station)				

#### Table 1.2

#### Water volume, km<sup>3</sup> Deviation **Balance item** (actual -Forecast/plan actual plan) Inflow to the Toktogul reservoir 2.89 0.27 2.62 Lateral inflow at the river reach Toktogul reservoir 3.32 10.59 7.28 - Shardara reservoir (+) Of which: Water releases into the Karadarya River 1.61 1.65 0.03 Water releases into the Chirchik River 1.71 1.28 -0.42 Lateral inflow from CDF and small rivers 7.66 7.66 Flow regulation in the reservoirs: addition (+) or 6.64 2.62 -4.02 diversion (-) of flow Of which: 8.55 5.51 -3.03 Toktogul reservoir -0.99 Kayrakkum reservoir -1.91 -2.90Regulated flow (1+2+3)12.57 16.10 3.53 Water diversion at the Toktogul-Shardara reach (-) 3.29 3.16 -0.13 Water losses (-) or unrecorded inflow to the channel 0.96 -1.51 -2.47 (+) at the Toktogul-Shardara reach 9 *Of which % of regulated flow* -8 Inflow to the Shardara reservoir 10.24 1.19 11.43 Flow regulation in the Shardara reservoir: addition -3.62 -2.82 0.81 (+) or diversion (-) of flow Water release from the Shardara reservoir 6.53 8.32 1.79 Water release into the Kyzylkum canal (-) 0.08 0.17 0.09 Discharge into Arnasay (-) 0.00 0.12 0.12 Flow use in the lower reaches: total of water -4.57 -5.84 -1.27 withdrawal (-), lateral inflow (+), losses (-) Water supply to the Aral Sea (Karateren gauging 1.96 0.52 2.48 station)

#### Syrdarya River channel water balance for the non-growing season 2014-2015



### Table 1.3

## Water balance of the Syrdarya River basin reservoirs for the non-growing season 2014-2015

	Water volu	Deviation	
Balance item	forecast/ plan	actual	(actual - plan)
Toktogul reservoir			
Inflow to the reservoir:	2.615	2.890	0.27
Water volume in the reservoir:			
- at the beginning of the season (October 1, 2013)	15.916	11.921	-4.00
- at the end of the season (April 1, 2014)	7.369	6.405	-0.96
Water releases from the reservoir	6.510	8.404	1.89
Unrecorded inflow (+) or water losses (-)	-4.652	-0.002	4.650
Of which % of inflow to the reservoir	-177.9	-0.1	177.80
Flow regulation: addition (+) or diversion (-) of flow	8.547	5.514	-3.03
Andijan reservoir			
Inflow to the reservoir:	0.803	1.101	0.30
Water volume in the reservoir:			
- at the beginning of the season (October 1, 2013)	0.564	0.392	-0.17
- at the end of the season (April 1, 2014)	0.767	0.953	0.19
Water release from the reservoir	0.517	0.523	0.01
Unrecorded inflow (+) or water losses (-)	-0.083	-0.017	0.07
Of which % of inflow to the reservoir	-10.4	-1.6	8.78
Flow regulation: addition (+) or diversion (-) of flow	-0.203	-0.578	-0.38
Charvak reservoir			
Inflow to the reservoir:	1.327	1.619	0.29
Water volume in the reservoir:			
- at the beginning of the season (October 1, 2013)	1.507	1.504	0.00
- at the end of the season (April 1, 2014)	0.687	0.588	-0.10
Water releases from the reservoir	2.12	2.48	0.36
Unrecorded inflow (+) or water losses (-)	-0.03	-0.06	-0.03
Of which % of inflow to the reservoir	-1.93	-3.53	-1.60
Flow regulation: addition (+) or diversion (-) of flow	0.820	0.859	0.04



	Water volu	Deviation	
Balance item	forecast/ plan	actual	(actual - plan)
Kayrakkum reservoir			
Inflow to the reservoir:	10.22	12.42	2.20
Lateral inflow	0.300	0.231	-0.07
Water volume in the reservoir:			
- at the beginning of the season (October 1, 2013)	1.51	1.12	-0.39
- at the end of the season (April 1, 2014)	3.42	3.48	0.06
Water releases from the reservoir	8.62	9.75	1.14
Of which:			
- water releases into the river	8.55	9.75	1.20
- withdrawal from the reservoir	0.069	0.001	-0.068
Unrecorded inflow (+) or water losses (-)	0.01	-0.54	-0.54
Of which % of inflow to the reservoir	0.1	-4.3	-4.40
Flow regulation: addition (+) or diversion (-) of flow	-1.909	-2.90	-0.99
Shardara reservoir			
Inflow to the reservoir:	10.24	11.43	1.19
Lateral inflow	0.0	0.0	0.00
Water volume in the reservoir:			
- at the beginning of the season (October 1, 2013)	0.999	0.933	-0.07
- at the end of the season (April 1, 2014)	4.698	3.910	-0.79
Water releases from the reservoir	6.62	8.62	2.00
Of which:			
- discharge into Arnasay	0.00	0.12	0.122
- water releases into the river	6.53	8.32	1.79
- water withdrawal from the reservoir	0.08	0.17	0.09
Unrecorded inflow (+) or water losses (-)	0.07	0.16	0.08
Of which % of inflow to the reservoir	0.7	1.4	0.66
Flow regulation: addition (+) or diversion (-) of flow	-3.62	-2.82	0.81
Total flow regulation: addition (+) or diversion (-) of flow	3.63	0.08	-3.55
Total unrecorded inflow (+) or water losses (-)	-4.68	-0.46	4.22





#### 2. Amudarya River Basin

Actual water availability along the Amudarya River in the Atamyrat gauging station (upstream of intake to Garagumdarya) was 14.07 km<sup>3</sup>, i.e. 33% more than BWO Amudarya's scheduled amount.

The established water withdrawal quota in the Amudarya River Basin was 94.3% used; total water withdrawal was 14.8 km<sup>3</sup>, including 12.4 km<sup>3</sup> downstream of Atamyrat gauging station (starting from intake to Garagumdarya).

Water supply was non-uniform among the states and river reaches (Table 2.1 and data from the web-site <u>www.cawater-info.net/analysis/</u>). Total water deficit amounted to 5.6%, including 26.8% in the Republic of Tajikistan, 1.6% in the Republic of Uzbekistan and 0.2% in Turkmenistan.

By the end of the season, the Nurek reservoir accumulated 6.78 km<sup>3</sup>, and TMHS (Tuyamuyun hydrosystem) reservoirs -3.1 km<sup>3</sup>. Inflow to the Nurek reservoir was 3.82 km<sup>3</sup>, while water releases from the reservoir were 7.59 km<sup>3</sup>.

Surplus to the river flow through drawdown of the Nurek reservoir was  $3.77 \text{ km}^3$ . Water losses at the reach Atamyrat-Birat amounted to  $3.24 \text{ km}^3$  or 18% of the regulated flow in the Atamyrat section.

Water losses along the river reach from the Tuyamuyun gauging station to Samanbay gauging station were  $1.7 \text{ km}^3$  or 31% of the river flow at the Tuyamuyun section.



Established quota for sanitary and environmental water releases into the canals within the Amudarya lower reaches was 108% used, while water supply was 0.86 km<sup>3</sup>.

The Aral Sea and the Prearalie received 0.99  $\rm km^3$  or 47% of the scheduled amount.

Table 2.2 shows river channel water balance and Table 2.3 shows water balances of the reservoirs.

Table 2.1

	Water vo	olume, km <sup>3</sup>	Water availability, %	Deficit (-), surplus (+),km <sup>3</sup>	
Water user	Quota / schedule	Actual	Season	Season	
Total water withdrawal	15.701	14.82	94.4	-0.88	
by state:					
Kyrgyz Republic	-	-	-	-	
Republic of Tajikistan	2.85	2.09	73.2	-0.76	
Turkmenistan	6.50	6.48	99.8	-0.02	
Republic of Uzbekistan	6.35	6.25	98.4	-0.10	
Downstream of Atamyrat GS*)	12.48	12.40	99.3	-0.08	
Of which:					
Turkmenistan	6.50	6.48	99.8	-0.02	
Republic of Uzbekistan	5.98	5.91	98.9	-0.07	
By river reach:					
Upstream	3.22	2.43	75.3	-0.79	
Of which:					
Kyrgyz Republic	-	-	-	-	
Republic of Tajikistan	2.851	2.09	73.2	-0.76	
Surkhandarya province, Uzbekistan	0.37	0.34	91.4	-0.03	
Midstream	8.34	8.28	99.3	-0.06	
Of which:					
Turkmenistan	5.10	5.05	99.1	-0.05	
Republic of Uzbekistan	3.24	3.23	99.5	-0.02	
Downstream	4.13	4.12	99.5	-0.02	

#### Water availability in the Amudarya River Basin countries for the non-growing season 2014-2015



	Water v	olume, km <sup>3</sup>	Water availability, %	Deficit (-), surplus (+),km <sup>3</sup>	
Water user	Quota / schedule	Actual	Season	Season	
Of which:					
Turkmenistan	1.40	1.43	102.1	0.03	
Republic of Uzbekistan	2.74	2.69	98.2	-0.05	
Sanitary and environmental water releases into the canals within lower reaches	0.80	0.86	108	0.06	
Of which:					
Turkmenistan	0.150	0.191	127	0.04	
Republic of Uzbekistan	0.650	0.671	103.2	0.02	
Water supply to the Aral Sea and Prearalie	2.1	0.99	46.9	-1.12	



### Table 2.2

### The Amudarya River channel water balance for the non-growing season 2014-2015

	Water volume, km <sup>3</sup>		Deviation
Balance item	Forecast / plan	actual	(actual- plan)
Water content in the Amudarya river - non-regulated flow at the Atamyrat GS *	10.58	14.07	3.49
Flow regulation in the Nurek reservoir: addition (+) or diversion (-) of flow	4.44	3.77	-0.67
Water withdrawal in the midstream (-)	-8.34	-8.28	0.06
return CDF (+) in the midstream	1.03	1.22	0.19
Water losses (-) or unrecorded inflow to the channel (+)	-0.85	-3.24	-2.39
% of regulated flow	6	18	12.51
Inflow to the TMHS (Bir-Ata GS)	6.85	7.53	0.68
Flow regulation by TMHS reservoirs: addition (+) or diversion (-) of flow	0.06	0.17	0.11
Losses (-) in the TMHS reservoirs, lateral inflow (+)	-0.8	0.0	0.84
% of the flow	12	0	-12.3
Water releases from TMHS (including water withdrawal from the reservoir)	6.9	7.70	0.79
Downstream water diversion, including diversion from TMHS (-)	-4.13	-4.12	0.02
Return CDF (+) in downstream	0.00	0.00	0.00
Emergency and environmental water releases into the canals (-)	-0.80	-0.86	-0.06
Runoff losses(-) or unrecorded inflow to the channel (+)	-9.7	-1.73	8.01
% of the flow at the Tuyamuyun GS	206	31	-174.47
Water supply to the Aral Sea and the Prearalie	2.10	0.99	-1.12
TOTAL losses:	-11.44	-4.97	6.46
% of the regulated flow	76	28	-48.26

\* Without upstream water diversion (Tajikistan and Surkhandarya province)



### Table 2.3

## Water balance of the Amudarya River Basin's reservoirs for the non-growing season 2014-2015

	Water vol		
Balance item	Forecast / plan	Actual	Deviation (actual- plan)
Nurek reservoir			
Inflow to the reservoir	3.85	3.82	-0.03
Water volume in the reservoir			
- at the beginning of the season (October 1, 2013)	10.56	10.54	-0.02
- at the end of the season (April 1, 2014)	6.12	6.78	0.65
Water releases from the reservoir	8.28	7.59	-0.70
Lateral inflow (+) or water losses (-)	0.00	0.00	0.00
Of which % of inflow to the reservoir	0.00	0.09	0.09
Flow regulation: addition (+) or diversion (-) of flow	4.44	3.77	-0.67
TMHS reservoirs			
Inflow to TMHS	6.85	7.53	0.68
Water volume in the reservoirs			
- at the beginning of the season (October 1, 2013 r)	4.03	3.27	-0.77
- at the end of the season (April 1, 2014)	3.13	3.10	-0.03
Water releases from TMHS	6.91	7.70	0.79
Of which:			
- water releases into the river	4.74	5.56	0.82
- water withdrawal	2.17	2.14	-0.03
Unrecorded inflow (+) or water losses (-)	-0.84	0.00	0.84
Of which % of inflow to the reservoir	12	0	-12.31
Flow regulation: addition (+) or diversion (-) of flow	0.06	0.17	0.11
<b>Total</b> flow regulation by the reservoirs: addition (+) or diversion (-) of flow	4.50	3.94	-0.56
TOTAL losses (-), unrecorded inflow (+)	-0.84	0.00	0.85

## INTERNATIONAL CONFERENCE OF THE NETWORK OF EECCA WATER MANAGEMENT ORGANISATIONS "WATER CONSERVATION AND EFFECTIVENESS OF WATER USE"

The Conference was held in Minsk, Belarus on the 21st of May 2015.

The key topics of the Conference discussion were:

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

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

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

Welcome speeches were delivered by:

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

Then, the reports were delivered by:

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

Problems in Russia's water sector were addressed in a number of other reports as well. In particular, N.A.Sukhoy analyzed significant shortcomings in the Russian water sector, such as lack of flood control that resulted in catastrophic floods in the Amur River and poor use of reclaimed land. Russia purchases food for \$35 billion, while irrigators and farmers in Kuban demonstrate huge capacities of the Russian irrigated agriculture. Kuban produces as much as 1 Mt of rice annually. Thus, similar development of irrigated agriculture in other areas of the country may reject a need for food import. Unlike Central Asia, Russia does not experience water scarcity. The current water management system is a structural sector for national economy. However, today it is developed as a central resource-supplying sector. The role of water resources in the change of production patterns and population in Russia urges that the system, large scale multidisciplinary study be undertaken without delay so that to avoid transformation of predicted water crisis into the real-time one.

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

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

- Water should be the basis of global security.
- There is growing water scarcity in arid zones and increasing water availability in humid zones.



- Uneven spatial distribution of water.
- Poor water controllability.
- Development of hydro-egoism and difficulties with hydro-solidarity.
- Transboundary problems.
- Anthropogenic-technological risks.
- Need for harmonization of water, soil, climate and nature.

In order to overcome these challenges he proposed to:

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

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

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

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

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

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



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

The water conservation measures can be divided into two categories:

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

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

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

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

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

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

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

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



than 12,000 ha. Flexible hose irrigation and film irrigation are applied in 14,000 ha of irrigated land.

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

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

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

In opinion of Kazakh experts (A.D.Ryabtsev, D.Balgabaev, Prof. Kallibekova), Kazakhstan is the least provided with water per capita. The average long-term runoff of all rivers in Kazakhstan was estimated at 100.5 km3 in the recent past, whereas now it is estimated at only 85 km3 by some experts.

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

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

In order to achieve water security in Kazakhstan and solve geopolitical, interstate, socio-economic tasks and in context of growing water scarcity, the country plans to re-distribute river runoff, particularly, transfer flow from the Yertis River via the Astana canal so that it would become the second independent source of water for the capital city.

A.D.Ryabtsev highlighted an importance of the state water management program, which set main tasks for guaranteed water supply to population, environment, and economic sectors through water conservation, more efficient water management and preservation of aquatic ecosystems. This program will require significant investments up to \$18 billion for 2015-2020; however, re-distribution of flows in water-scarce basins within the boundaries of Kazakhstan would help to avoid water scarcity, which is predicted to be 8.5 billion m3. The world practices in modern flow re-distribution demonstrate feasibility of such measures. Moreover, neighbors of Kazakhstan, first of all, China already implement such water transfers even along the Irtysh River, particularly through the Irtysh-Karamai and Irtysh-Urumchi canals.

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

Irrigated agriculture in three Kazakh provinces should be developed further only through water conservation technologies, primarily drip irrigation. By present, as


K.A.Anzelm noted, the drip irrigation area has been extended to 34,000 ha. This is the set of economic, financial, legal, and institutional measures with extended soft financing that allows successful implementation of water-conservation technologies. In doing so, 80 % of water delivery services through modern technique is compensated by the public sector.

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

- improve quality of furrow irrigation for row crops, orchards and vineyards by cutting micro-furrows;
- portable and stationary tube network is recommended for distribution of water over irrigated fields under furrow irrigation;
- drip irrigation is recommended for high-profitable crops (cotton, citrus plants, fruits and vines) under acute shortage of irrigation water. In this context, Republican scientists suggested various options of low-pressure drip systems for both row crops and perennial plants. The cost of construction and operation of such systems is 1.5-2 times lower than of traditional ones;
- irrigate fodder crops by impulse sprinkling;
- subsoil irrigation of vines;
- terraced irrigation of citrus plants.

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

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

Representative of Azerbaijan A.Sh.Mamedov stressed that given the growing water scarcity, development of off-stream reservoirs that have not a negative effect on richer channels and do not cause competitiveness between hydropower and other water users is of importance.

The Conference adopted the resolution.



## RESOLUTION OF THE NWO EECCA INTERNATIONAL CONFERENCE "WATER CONSERVATION AND EFFECTIVENESS OF WATER USE"

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

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

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

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

The participants believed it necessary to enhance efforts to counteract the factors causing water tension through common orientation of water-management organizations and water users towards efficient water use, including stronger coordination among the countries and water-related sectors. This must be a principled line of actions of the world community under coordination of UN organizations and of



the national governments, with particular focus on transboundary water cooperation that involves about 40% of the world's water resources.

Solutions on integrated water and land resources management should be based on reasonable water use by all users with the help of decision support system and upto-date water conservation technologies, through reduction of unproductive water losses, re-use of wastewater in agriculture and industry, intensification of production of traditional and drought-tolerant crops, and involvement of all stakeholders dealing with food security in solution of problems related to water insecurity.

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

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

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

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

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

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

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

1. Submitting regularly messages on national events in area of water management and information on new publications, software, methodologies and



training materials in order to raise awareness among water professionals and encourage water sector development in EECCA.

2. Strengthening Network's national centers, their equipping and involving in their activity more water-management, academic and non-governmental organizations in order to create a multistakeholder platform for improvement of national water sectors and overcoming of challenges.

3. Building a bridge among the Network's members and water and agriculture decision makers in EECCA countries to inform them about existing global trends in water development as compared to the existing situation in the national water sectors of our countries so that to raise effectiveness of the Network activity.

4. Enhancing cooperation with national focal points of international networks and organizations, such as Global Water Partnership (GWP), International Commission on Irrigation and Drainage (ICID) and others.

5. Enhancing support of NWO EECCA from the side of the Permanent Technical Secretariat of the International Network of Basin Organizations (INBO) through:

- involvement of members of both NWO EECCA and other regional networks of INBO in activities related to extension of the knowledge base;
- raising of funds for twinning with European basins; exploring possibilities for adaptation of European water directives to conditions and needs of the EECCA region; adjustment of EU financial mechanism to conditions of the EECCA region.

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

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

The participants have agreed with proposals to hold relevant events in 2016 dedicated to 50-year anniversary since the adoption of the State Program for Land Reclamation in USSR.

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

The participants also appreciated very much assistance rendered by the Institute of Land Reclamation at the Belarus National Academy of Sciences, the Institute "Belgiprovodkhoz", and the Department for Land Reclamation and Water



Management at the Belarusian Ministry of Agriculture in preparation and organization of the Conference.



### MEETING OF CENTRAL ASIAN REGIONAL ORGANIZATIONS FOR ENHANCEMENT OF MECHANISMS FOR COOPERATION IN ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

#### 25-26 May 2015, Almaty, Kazakhstan

The meeting of Central Asian regional organizations was organized by initiative of CAREC jointly with the IFAS Executive Committee. The aim of the meeting was to develop a common platform of regional organizations for facilitation of coordinated actions at national level and in relations with donors and for enhancement of cooperation between organizations under IFAS umbrella. This idea was supported by all the participants that included representatives of SIC ICWC, SIC ICSD, ICWC Secretariat, Regional Hydrological Center, BWO Amudarya, and BWO Syrdarya.

CAREC Executive Director I.Abdullayev and Deputy Chairman of IFAS Executive Committee Sh.Talipov opened the meeting. At the beginning, all regional organizations presented their work progress over the last three years and visions of their current mandates with the following improvements in the future.

SIC ICWC Director underlined in his report that 8 ICWC meetings were held over the last 3 years to coordinate schedules and amounts of water supplies for nongrowing and growing seasons in every year. During this period, the big achievement was the approval by ICWC members at their 63<sup>rd</sup> meeting in April 2014 of the Implementation Plan on strengthening ICWC activities in key directions. This Plan included four main directions: water conservation; implementation of integrated water resources management; improvement of water accounting quality and accuracy; and, capacity building of regional and national organizations.

SIC ICWC published 10 ICWC bulletins, 42 press-releases, 3 collections of scientific papers, 9 abstract collections, etc. In addition, 12 proposals were developed as part of ASBP-3 and submitted to IFAS.

In 2012, SIC ICWC initiated huge work on improvement of the knowledge base on the basis of rubricator, which included 15 thematic areas. Consequently, 4 000 visitors per day were recorded on the portal on average in the last year.

SIC ICWC is deeply interested in cooperation with all regional and national organizations, proposing its establishment in line of "responsible partnership". Such cooperation is characterized by orientation towards collective rather than competitive advantages, feed-back mechanism for implementation of partnership initiatives, self-monitoring, and demonstration of achievements and shortcomings. Besides, such partnership promotes synergies.



The Head of ICWC Secretariat M.Babadjanova underlined the coordinating role of the Secretariat in preparation and organization of ICWC meetings and stressed that By-laws and guiding documents of all regional organizations were outdated and needed radical revision.

Representative of SIC ICSD Ch.Muradov called upon all the participants to orient towards sustainable development in their activities. He also underlined complexities related to search for financing sources.

Executive Director of the Regional Hydrological Center S.P.Shivaryova emphasized that activity of the Center is mainly supported through the projects of the World Bank. The Center reconstructs and standardizes operations of active hydrometeorological stations, and establishes continuous connection between the station and consumers. She cited establishment of the intersectoral team in Kazakhstan as s good example of this work. In her opinion, it is necessary to strengthen activities in long- and mid-term forecasting of flow for more accurate detection of extreme years. As an example, she showed current parameters of Chardara and Koksarai reservoirs that are underestimated in her opinion. As the Center calculates, potential breach of Chardara dam may cause damage of more than 5 billion dollars.

Representative of BWO Amudarya underlined a need for harmonization of hydrological data from transboundary cross-sections and indicated to availability of unaccounted flow losses in the Amudarya basin. He proposed to develop modeling of river behavior and water distribution on daily basis, as well as publication of mid- and long-term water diversion forecasts for improvement of BWO Amudarya activity.

Representative of BWO Syrdarya indicated to a need for sharing experience among different generations of experts. In addition, he underlined the importance of a unified information system for the Syrdarya basin that could be used by various institutions.

Representative of the Kazakh branch of IFAS A.Kenshimov talked about successful cooperation of this branch with OSCE, UN, and UNESCO. He also told about plans to start publishing bulletins on Syrdarya lower reaches and other intranational basins.

At the end of presentations, CAREC Director told that REC practiced team management in their organization. The REC Board includes 5 representatives of the countries and 5 representatives of NGOs, and 2 international experts. REC carries out several regional projects, including small river projects. A new website "Knowledge hub" was organized to develop the knowledge base.

The second half of the day was dedicated to discussion of proposals. Representative of ICSD Mr. Mamedov via SKYPE expressed an intention to take active part in information exchange and in the plan of joint actions of regional organizations. Moreover, ICSD puts high hopes on potential establishment of the Center for Adaptation to Climate Change in Ashgabad.

SIC's report stresses that we have to live together within a common water basin and space determined by location of our countries in the landlocked basins of Aral



Sea, Caspian Sea, and Balkhash Lake. Our cooperation should proceed from regional and national visions that are oriented to the long-term future, i.e. what water and environmental situations we would expect under various options and what steps should the countries and regional organizations take in order to face these challenges. SIC's forecasts show that by 2035-2040, water content would decrease within 0-3 km3 in the Syrdarya River and from 6 to 9 km3 in the Amudarya River. In this context, the key areas of cooperation should be water conservation, efficient interfacing of all water hierarchical levels, integrated water resources management, and improvement of water and land productivity. All country actions in these areas should be synchronous and bear the sense of responsibility in order to ensure both national and regional water security as the basis for food, environmental and energy security and sustainable development. There is no need to revisit existing main agreements but we should focus on elaboration of rules and regulations, as well as procedures for basin management as a follow-up of these agreements. From this point, measures to overcome main barriers are very important. These barriers include the lack of trust among the countries concerning issues related to the regional water system as respective negotiations are usually delayed and produce no required results. The six-year work on draft Agreement on the Syrdarya basin is a characteristic example. Another barrier is the deviations from fulfillment by different parties of accords as part of Agreements 1992 and 1998 and improper fulfillment of ICWC decisions on allocation of water withdrawal quotas among the states and on filling of reservoirs and regimes of water releases from the. Evidently, it is necessary to estimate benefits and costs of each party from concrete projects related to joint transboundary water management.

For implementation of ASBP-3, one should not be guided by desires of donors that often have fragmented visions of this program. Regional organizations should firmly decide what the region does need. Distribution of donor projects by river basin is characteristic in this context. Donors take a great interest in the Chu-Talas basin, where 15 different projects are implemented already. Larger attention is given to the Syrdarya River basin and three small river basins, such as Isphara, Ugam, and Aspara. At the same time, the main imminent painful place in the future regional development – the Amudarya River basin – lacks donor support. Particular attention should be paid to enhancement of cooperation mechanisms, among which the main four ones are:

1. Regional water strategy as a common vision of future regional development under conditions of scarce water.

2. Information exchange among all parties of the regional process, first of all.

3. Regional training, which is a platform for achievement of consensus on interactive basis.

4. Joint projects that help to consolidate general knowledge and practices and create a platform for better understanding between the partners.

In doing so, contribution and responsibility of each organization, on the one side, should match its benefits, on the other side.

SIC ICWC suggests to all regional organization to join to the development of the knowledge bases, which is maintained on the CAWater-Info portal.

The Executive Director of RHC S.P.Shivaryova stressed a need for orientation towards community of interests and problems: water, nature, and economy. The main barrier is the lack of awareness about financing, development, and implementation of regional projects. The focus should be placed on large regional projects and involvement in them as many regional organizations as possible. It is important that the results of these projects were widely communicated. IFAS should become such an organization, which coordinates and is responsible for wider information of partners.

Deputy Chairman of IFAS Executive Committee Sh.Talipov in his speech noted that virtually EC IFAS, ICWC, and ICSD are a common platform, where provision of information should be open. Unfortunately, data transfer from different countries faces great difficulties. This affects coordination between regional organizations and between the latter and national organizations. Development and implementation of ASBP-3 should be the basis for cooperation of regional organizations; moreover, it is important to receive timely information from regional and national organizations in order to avoid duplication and inefficient usage of donor and own funds. EC IFAS takes measures to speed up all activities ensuing from resolutions and protocols, as well as memos of understanding signed at Urgench Conference.

ICWC Secretary M.Babadjanova pointed attention to a need for consideration of different interests of the countries and diversity of approaches. Nevertheless, achieving consensus is prerequisite for cooperation.

CAREC Director I.Abdullayev said the following: it is clear that each organization has its own aims and tasks and therefore not all the organizations can contribute equally to cooperation. However, any regional organization can contribute to aggregated opinion of regional organizations in case of openness and trust. If regional organizations manage to create and develop the common platform, this will allow establishing channels for continuous interactions and, at the same time, stating their consolidated view before donors and governmental agencies. To this end, it is very important to draft the list of prospective measures of regional organizations, create a mechanism for their information and attraction of partners. He also proposed to establish a common bank of reports about completed projects, whether they are donor's or national ones. He proposed to create a "white list" of international partners that have positive experience in cooperating with regional and national organizations. While exchanging opinions, the potential areas and mechanisms of cooperation were agreed upon.

Representatives of EU, UNEP, USAID, OSCE, UNECE, Finnish and Norwegian embassies in Kazakhstan, as well as JICA participated in the meeting with donors. Donors talked about their efforts in support of ASBP-3 and informed that EU planned a meeting on the new large regional project in July in Tashkent and requested both regional and national organizations to prepare their concrete proposals so that to have better understanding of what the region actually does need. It was proposed to issue a bulletin "Central Asia and donors", which would inform regularly about



financed projects and their effectiveness. The same idea was supported by Sh.Talipov, Deputy Chairman of EC IFAS, who underlined the establishment of regular communication between donors and regional organizations and vice versa. Particular attention should be paid to monitoring of projects and to bringing country priorities and donors' priorities into accord.

#### Annex

Area	Mechanism	
1. Development of regional vision		
1.1. Development of the long-term water and environmental vision for sustainable development.	Establishing task force among regional organizations for the regional vision.	
	Preparing a program for the regional vision.	
	Developing joint programs based on the regional vision and the ASBP-3, Regional Environmental Action Plan in Central Asia (REAP), etc.	
2. Sharing information, lessons and knowledge		
2.1. Involvement of IFAS organizations and its branches in implementation of regional initiatives, including ASBP-3, etc.	Regular communication with IFAS organizations for support of regional initiatives.	
	Involvement of decision makers in supporting regional initiatives.	
2.2. Coordination of efforts for building capacities of regional organizations.	Supplying information about current training programs and workshops.	
	Joint initiatives on capacity building of regional organizations.	
	Database on trainings (customary and online) for regional organizations.	
	Ensuring accessibility of training programs and materials	
2.3. Regular exchange of information on current activities of regional organizations.	Placing information on the web-site about events of organizations and on participation of partners in events.	
	Informing about meetings, incorporation of points of interest for partners into agenda.	

#### Discussion results: Possible areas and mechanisms of cooperation



Area	Mechanism	
	Invitation of partners from regional organizations to important meetings and events held by given organization.	
	Active and mutual participation in events of regional and international organizations.	
	Preparing a common calendar of events on the web-site and other e-resources.	
	Regular meetings of regional organizations.	
2.4. Development of water and environmental knowledge base for sustainable development.	Informing each other on existing knowledge bases.	
	Assisting and participating in the development of regional knowledge bases.	
2.5. Exchange of best practices and experience between the countries and regional organizations.	Exchange of information on innovative technologies.	
	Publication of joint brochures about best practices.	
	Involvement of experts from national and regional organizations.	
	On-the-job training of personnel from the countries and regional organizations.	
3. Coordination of activity and cooperation		
Development of cooperation on the basis of responsible partnership.	Joint participation in regional projects and their tenders.	
	Joint planning of regional events.	
	Exchange of information on tenders and calls in CA.	
	Sharing lists of partners (honest and dishonest ones).	
Enhancement of coordination of regional organizations' activity with EC IFAS.	Timely informing EC IFAS about activities, including projects ongoing or to be implemented.	
	Defining more precisely sphere of interests of regional organizations in ASBP-3.	
Activation of raising funds for implementation of project and programs under ASBP-3, etc.	Developing a joint platform of regional organizations for the projects proposed by donors.	
	Regional organizations together with EC IFAS helping to search funds for implementation of	



Area	Mechanism
	programs and projects as part of ASBP-3.
	Informing IFAS state-founders, donors and international partners about progress in implementation of ASBP-3.



### REPUBLICAN WORKSHOP FOR WATER LEADERS OF UZBEKISTAN

On 29-30 May, 2015, the Republican Workshop for Water Leaders of Uzbekistan (BISAs, ISAs, operating departments, etc.) was co-organized in the Kashkadarya province by the National Fund for Land Reclamation under the Ministry of Finance. The workshop was attended by staff of several projects supported by the international donors (WB, SDC, GIZ, GWP CACENA) and of the Institute of Water Problems and Irrigation under the Tashkent Institute of Irrigation and Melioration (TIIM). Totally, more than 80 leading specialists of water sector of Uzbekistan participated in the workshop

Khamraev Sh.R., Deputy Minister of Agriculture and Water Resources, Head of the Central Water Administration of Uzbekistan coordinated the workshop. The main points on the agenda were aimed at water governance, application of water-saving technologies, repair and rehabilitation of irrigation and reclamation facilities, and strengthening of water user associations.



The welcoming speech of Zafar Ruziev, Khokim of the province, and Shavkat Khamraev, Deputy Minister of Agriculture and Water Resources



The workshop was opened in the evening of May 29 in the Amu-Kashkadarya Irrigation System Basin Authority in Karshi city. Early in the morning (at 5 o'clock) the participants were treated with the Uzbek national meal - pilav. During this business breakfast, Zafar Ruziev, Khokim (governor) of the Kashkadarya province made a brief review of the issues and achievements in the water sector and agriculture.

The Kashkadarya province is located in the Southern part of Uzbekistan in the Kashkadarya River Basin on the western side of the Pamir-Alay Mountains. The population is 2,723,900 (2011). The economy of the province is focused on agriculture. The share of agricultural production in Gross Regional Product is over 27.3%. Gross value of agricultural production in the province is UZS 1,329.7 billion (\$791.5 million).

Natural and climatic conditions of the region are characterized by higher average annual temperature than in other regions. Long duration of warm season and fertile soil give opportunity to produce warm-season subtropical crops, such as late fine-stapled varieties of cotton, date-plum and sugar cane. Favorable climatic conditions and irrigation system in the Kashkadarya province allow producing from two to three harvests a year.

The Kashkadarya province is the main breadbasket of grain in Uzbekistan, manufacturer of cotton and other agricultural products. This is evident from the fact that the province accounts for 10.2% of total agricultural production in the country, more than 10% of cotton, 11% of grain and 19% of karakul.

The major branches of agricultural production are fine-stapled cotton growing and great and small cattle breeding.

The total area of the province is 2,857,000 ha, of which 1,381,000 ha are pastures. The province has 1 million ha of land, which is suitable for irrigation.

Natural conditions in the province are favorable for growing grapes, stone fruit trees, fig trees and pomegranate. Karshi grapes, especially the "Maska" variety, are famous for their taste. In addition to cotton growing, silkworm breeding is practiced in the province. The province is one of the leaders in karakul sheep raising. Expansion of grazing and increase of maize and alfalfa production contribute to further development of animal breeding.





Demonstration materials for the participants of the workshop in the yard of Amu-Kashkadarya BISA







Drip irrigation system for cotton in Karshi district





Pumping and filtering equipment for drip irrigation system



### Drip irrigation system for cotton

The participants also paid attention to perfect conditions of ditches in the Karshi province.





Ditches are effectively operated after routine repair and maintenance almost throughout the Kashkadarya province

During the next stop the participants were introduced with equipment, which is produced and sold by the "Uzmeliomashlizing" company, which was specially established under the Reclamation Fund. Samples of technical equipment were presented with demonstration of their technical characteristics, price and purchase terms.



Presentation of equipment purchased by "Uzmeliomashlizing" under the Reclamation Fund



The participants of the seminar visited the Mirishkor Canal Authority. The functioning management information system for water allocation along the canal (developed in 2010-2011 by the "RESP-2" project with the assistance of SIC ICWC) was demonstrated.



Water is life. The photo shows dead steppe to the left of the road and blossoming garden to the right, where water was delivered artificially

The morning was ended with the visit to pumping station  $N_{2}$  7 of the Karshi main canal cascade.

There the participants were introduced with the pumping station itself and visited the Talimarjan reservoir. The general information about the conditions of the Karshi main canal and operation of this complex and unique water system was presented.





Pumping station № 7 at the Karshi main canal.





Pumping station № 7 at the Karshi main canal. The dam of the Talimarjan reservoir can be seen upstream

In the afternoon the participants left the south-west of the Kashkadarya province to the north-west – to Gissarak the hydroscheme. In the Nishan district the participants visited the demonstration plot with hydrometric equipment, which is used to train farmers in water accounting. In addition, the experiment of cotton alternate furrow irrigation under black film was shown. This technology allows reducing irrigation norm by 40% and increasing crop yield by 25%.





Training unit at farm level in the Nishan district





**IIAlternate furrow irrigation of cotton under black film in the Nishan district** 

Then, on the territory of the Kamashin district the participants were accompanied by Rashid Mammadiev, Khokim of the district and holder of the "Dustlik" order. He told about problems and achievements in irrigation and water sector. As the Khokim reported, the district expects a record-breaking yield of winter wheat in 2015 - 82 centner/ha on average.





Wheat in Kashkadarya

The participants visited the Kamashin reservoir, where they became acquainted with operation of the set of facilities, as well as fish production in special ponds.



Kamashin reservoir along the Kashkadarya's tributary – Yakkabagdarya River. Total volume – 25 Mm<sup>3</sup>





**Gissarak HEPS** 

The workshop ended in the Gissarak hydroscheme on the Aksu River. Gissarak HEPS was launched in 2011. HEPS is built near the Gissarak hydroscheme dam, which was constructed in 1988 for accumulation of water for irrigation. It operates through irrigation releases from the reservoir.





HEPS dam forms the Gissarak reservoir for seasonal flow regulation with the total volume of 170  $Mm^3$  and available capacity of 162  $Mm^3$ 



Diversion canal in tail race of the Gissarak hydroscheme

Deputy Head of SIC ICWC Sokolov V.I. Photo by the author



# 17<sup>th</sup> GOVERNING COUNCIL MEETING OF THE ASIA-PACIFIC WATER FORUM

The 17th Governing Council Meeting of the Asia-Pacific Water Forum (APWF) was held on May 10, 2015. The meeting gathered 26 representatives from the leading organizations of the Asia-Pacific region. The agenda was devoted to the results of the 7th World Water Forum and the activity of the APWF towards the 3rd Asia-Pacific Water Summit planned in 2017.

The meeting was chaired by Mr. Ravi Narayanan, the Acting Chair of the APWF Governing Council, and Mrs. Changhua Wu and Mr. Simon Tay, Vice-chairs of the APWF Governing Council.

Sangyoung Park, the Acting Head of the Korea Water Forum (KWF) presented the general report on the 7th World Water Forum's overall outcome and on new Science & Technology process.

Short reports on sessions under the regional process were presented as follows:

- Water and Cities Ai Sigiura, UNESCO Office Jakarta.
- Water and Green Growth Taesun Shin, K-Water.
- Water and Food Security Thierry Facon, FAO Regional office.
- Integrated Water Resources Management Coichiro Omoto, NARBO.
- Development of Cooperation in the Aral Sea Basin Vadim Sokolov, Regional Cordinator GWP CACENA.
- Transboundary Rivers in the Northeast Asia Heather Lee, KWF.
- Water-related disasters Masahiko Murase, ICHARM.
- Sanitation in the Asian rural area Pierre Flamand, Japan Sanitation Consortium.

During presentation of the results of the Aral Sea Basin session, the brochure published by EC IFAS in Russian and English languages describing the outcomes of the special session "Development of Cooperation in the Aral Sea Basin to Mitigate Consequences of the Environmental Catastrophe" and the EC IFAS participation in the Forum's events was handed out to the participants.

In conclusion of discussions on the outcomes of the 7th World Water Forum, Yoshie Tonohara, Japan Water Forum (JWF), presented to the participants the final report for Asia-Pacific region.

The participants of the Governing Council Meeting of the Asia-Pacific Water Forum (APWF) agreed that the outcomes of the 7th World Water Forum need to be widely disseminated. Consequently, the Secretariat represented by the Japan Water



Forum was asked to prepare the so-called policy briefs, involving leading organizations in the region, and disseminate them in the region.

The APWF Governing Council also considered the proposals and the development program of the new publication "Asian Water Development Outlook"  $(AWDO-2016)^{13}$ .

Mr. Ravi Narayanan, the Acting Chair of the APWF Governing Council made a brief presentation. He informed that new publication is already being prepared with financial support of the Asian Development Bank and under coordination by the Asia-Pacific Center for Water Security (Beijing University, China).

It is planned to hold a seminar for discussion of preparation process and the contents of the future outlook in ADB Headquarters in Manila. Final outlook will be presented during the 3rd APWF Summit in 2017. The first presentation of this outlook was made during the 7th World Water Forum in Korea in April, 2015.

Nigel Walmsley, GWP and HR representative, presented the new initiative "Meta-guide on water and climate change in the Asia-Pacific Region". The initiative includes the establishment of a knowledge network for the climate change adaptation tools.

Finally, Kazuhisa Ito, Deputy General Secretary of the Japan Water Forum, made a presentation on preparation to the 3rd APWF Water Summit. The Summit is to be held during the period from April to June 2017 and should serve as a platform for preparation of the Asia-Pacific region towards the 8th World Water Forum in Brazil. At the moment, the JWF Secretariat is expecting submission of applications from the countries that are ready to be a Host of the Summit. It is expected that by September-October 2015, the hosting country of the 3rd Summit will be identified and the Summit agenda will be announced.

Sokolov V.I. Photo by the author

<sup>&</sup>lt;sup>13</sup> The first outlook of AWDO-2007 was presented at the first Summit of APWF in Beppu, Japan, in December, 2007. The second one was presented at the second Summit of APWF in Chiang Mai, Thailand, in May, 2013. The full outlook in Russian language is available on ADB web-site:





Working moments of the 17th Governing Council Meeting of the Asia-Pacific Water Forum (APWF) in Singapore



Presentation of Sokolov V.I. on the results of the special session - "Development of Cooperation in the Aral Sea Basin to Mitigate Consequences of the Environmental Catastrophe" held during the 7th World Water Forum





N. Walmsley, representative of GWP and HR Wallingford, presented new initiative "Meta-guide on water and climate change in the Asia-Pacific Region"





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