

**AGENDA FOR THE SIXTEENTH MEETING OF THE  
SPECIAL WORK TEAM ON ARAL SEA BASIN (ST-ARAL)  
New Delhi, India  
06 December 2009: 14.15-18.00 hours**

**Year of Establishment: 1994**

**Members:** (1) Vice President Hon. Victor A. Dukhovny, Chairman, 2005 (Uzbekistan, 1994); (2) Mr. John Osterberg (USA, 1996); (3) Prof. Dr. N. Hacho (Japan, 2002); (4) Engr. M.S. Adamu (Nigeria, 2002); (5) Acad. Boris Kizyaev (Russia, 2002); (6) Mr. Ron W. Coley (Canada, 2003); (7) Mr. M. Falciai (Italy, 2004); (8) Mr. Bernard Vincent (France, 2005); and (9) Secretary General, ICID.

**Permanent Observers :** (i) Prof. Daene C. McKinney (IWRA); (ii) Dr. Carlos Garces-Restrepo, IPTRID (FAO); and (iii) World Bank representative.

**Item 1 : Confirmation of the minutes of the 14th meeting of ST-ARAL**

*(The 15th meeting of ST-ARAL during Lahore Meetings (2008) could not take place in view of scarce attendance of members.)*

The minutes of the 14th meeting of the ST-ARAL held at Sacramento in October 2007 will be confirmed.

**Item 2 : Tenure of the Working Group/Work Team**

The deliberations in the 13th meeting (2006) brought out the progress achieved by the ST-ARAL in a nutshell. To recapitulate, those are:

- Establishing membership drive among ICID National Committees of Aral Sea Basin and receipt of application from Azerbaijan
- Acquiring publicity in information network developed based on the three years activity of Central Asian Regional Water Information Base (CAREWIB) project, supported by the Swiss Agency for Sustainable Development and Cooperation (SDC)
- Educational activities organized by the Training Center of Interstate Commission for Water Coordination (ICWC) with the support of CIDA and McGill University
- Acceptance of IWRM and its substantial implementation in Aral Sea Region
- Accomplishment of works related to IWRM and request for its wider dissemination and
- Establishment of broad based cooperation with different International and Donor Organizations.

The Chair did not hesitate to highlight that the Work Team has already outlived its stipulated tenure of 6 years and there was a need to call a closure.

However, it was felt by the WG that the work of ST-ARAL should continue with a new mandate and action plan addressing pending task or transfer of the pending tasks to a proposed new Working Group on "Irrigation, Drainage and Environment for Economy Transfer". An alternate name which sprung up was "Water Resources Management in Degraded Basins". It was also felt that it can couple itself with either the Work Team on Lake Chad or other river basins, where Inter Basin Water Transfer (IBWT) was of importance elsewhere in the world, for a closer coordination.

Chairman VPH Victor A. Dukhovny could not attend the Sacramento (2007) and Lahore (2008) meetings. No further discussion was possible in the last meetings and it was decided to postpone the subject until the New Delhi meeting.

Chairman may like to apprise further progress during the meeting.

**Item 3 : To review the membership of the Work Team**

**Item 3.1 : Work Team Membership**

The Netherlands National Committee (NETHCID) has nominated Dr. Kai Wegerich (Netherlands) for the membership of the ST-ARAL. Dr. Wegerich's CV will be placed for consideration during the ST meeting.

Members who were neither present nor could contribute through correspondence for the last two consecutive years are:

- Mr. John Osterberg (USA)
- Mr. Ron W. Coley (Canada)
- Mr. M. Falciai (Italy).

The Central Office has contacted these National Committees in February and July 2009 to confirm their participation in the New Delhi meeting or alternatively nominate a new member with an assurance that the new nominee would contribute to the activities of the WG. Responses from them are still awaited.

Attendance of the members at the past meetings of the ST (2006, 2007 and 2008) will be reviewed during the meeting.

**Item 3.2 : Country Membership**

The following points were noted under this item during the 13th meeting:

- Uzbekistan, Kyrgyzstan and Kazakhstan are active NCs of ICID.
- Turkmenistan was accepted as a member in Bali (1998) but their initial payment of subscription was awaited.
- Tajikistan made the initial payment and remained active till December 2002. It is now an inactive NC.
- Azerbaijan was admitted to ICID family but the payment of their subscription to effect the new membership is awaited.

The Central Office of ICID is in correspondence with the Chairman, ST-ARAL and Chairman, ASRWG regarding country membership of the NCs of Turkmenistan, Tajikistan and Azerbaijan. The CO requested the NCs of Kyrgyzstan and Kazakhstan to come up with their nominations for ST-ARAL membership.

**A. CONTINUING ITEMS**

**Item 4 : Further progress regarding Aral Sea Basin (ASB)**

In the 13th meeting, IPTRID indicated about the distribution of the English version of the report on Aral Sea Basin (ASB) amongst the key actors and stakeholders of the region based on the IPTRID mailing list. SIC-ICWC translated the ASR report into Russian language with the help of IPTRID and Chairman, ST-ARAL and distributed the book amongst the key stakeholders using SIC-ICWC mailing list.

The Chairman, ST-ARAL while expressing his gratitude to IPTRID and all other donors of the ASB for providing financial and technical assistance, stressed the need to promote the work related to drainage investigations drainage design and drainage investments.

It may be noted that IPTRID Strategic Framework was subject to further review. IPTRID's own future status is not certain.

**4.1 WWF5 and Aral Sea Basin**

During WWF5 at Istanbul, a special session on Aral Sea Basin was arranged with GWP showing a new interest in introducing IWRM concept.

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GWP sub-regional side event (SE 026) on 'Climate change, water resources management, governance and capacity building issues in Central Asia and Caucasus' was co-organised by Interstate Commission for Water Co-ordination in Central Asia (ICWCCA) and Global Water Partnership (GWP) on 18 March 2009 at Istanbul, Turkey.

During the event Prof. Dukhovny presented a book on 'IWRM – From Theory to Real Practice: The Experience of Central Asia'. The book highlights IWRM practical experiences from CACENA. The book is available online at: <[http://www.cawater-info.net/library/eng/gwp/dukhovny\\_sokolov\\_e.pdf](http://www.cawater-info.net/library/eng/gwp/dukhovny_sokolov_e.pdf)>.

President Chandra Madramootoo, VPH Dukhovny and Secretary General Gopalakrishnan participated in the event.

The background, challenges and actions and principal outcomes of CACENA side event are enumerated in **Annex 1**. Additional information on Aral Sea Basin and GWP CACENA can be accessed at: <[www.cawater-info.net](http://www.cawater-info.net)>, <[www.gwpcacena.net](http://www.gwpcacena.net)>.

## **4.2 APWF and Aral Sea Basin**

The members of ST might be interested to note an initiative that took place during the 1st Asia Pacific Water Summit (APWS), organized during 3-4 December 2007 at Beppu in Japan. Among many other sessions, Aral Sea Panel Session on "Commitment for Ensuring Water Security in the Aral Sea Basin – Cooperation versus Competition" is of particular interest to ST-ARAL. The background of APWF together with summary report of Aral session is available at **Annex 2**.

### **Item 5 : Capacity Building Programs**

The following points were brought out in the 13th meeting (2006):

- CAREWIB Project is being implemented with the financial assistance of the SDC. This will strengthen the present organizational infrastructure and encourage large-scale involvements of stakeholders and world audience in the Aral Sea problems.
- The first stage of the project is completed successfully and awaits the announcement of second stage with the support of SDC. This will help to spread the major task of methodological approach of the CAREWIB to national network formation with proper information on qualitative and quantitative availability of water, land and environmental characteristics.
- Technical Assistance from Asian Development Bank for Improved Management of Shared Water Resources in Central Asia coordinated by SIC-ICWC initiated preparations of Agreements on the transboundary aspects for Amudarya and Syrdarya rivers and financial issues for collaboration.

The Chairman further intimated that ST-ARAL together with former Chairman of ST-ARAL VPH Chandra Madramootoo and President Hon. Aly Shady would continue exploring assistance for the Capacity Building Programme. UNESCO-IHE is also taking interest for developing network of training branches in the region.

#### **(i) New initiatives in Aral Sea Basin**

In the 13th meeting the Chairman Special Team mentioned that the ST should continue its efforts in coordinating Brace Center of McGill University (Canada), SIC-ICWC, CIDA and EU for bringing developments in different zones of Central Asia.

#### **(ii) Environmental and Socio-economic Assessments**

Chairman, in the 13th meeting (2006), mentioned about:

- Completion of the first stage of the project on "Delta Syrdarya improvement" financed by the Government of Kazakhstan and The World Bank
  - Preparation of a feasibility study on the second stage of the project
  - Promotion of the works for South Priaralie carried out by the Government of Uzbekistan and
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- Completion of the report on socio-economic and environmental consequences of Aral Sea disaster by SIC-ICWC and its introduction as a publication in the next meeting.

The Central Office requested (11 May 2009) President Chandra Madramootoo and PH Aly Shady (Canada) to further update on the above issues. In response, VPH Dukhovny informed (18 May 2009) that not much progress has been made in this regard.

Chairman will apprise the members on further progress during the meeting.

**Item 6 : Top level meeting in Almaty and new IFAS**

Many rounds of meetings took place among the five Aral states.

**Special activity:**

Besides having Special Work Team on Aral Sea Basin (ST-ARAL) with Prof. Dukhovny as its Chairman and also publishing a paper on 'Drainage in the Aral Sea Basin' in Special Issue of ICID Journal on occasion of 25th anniversary of WG-DRG, ASB is always high on the agenda of ICID.

To bring the challenges of ASB to fore, ICID will be organizing a Special Session on ASB Initiative during its 60th IEC and 5th ARC during December 2009 in New Delhi, India. The theme of the Special Session will be 'Water and Food Security in Central Asia'. The background note of the Special Session is available at **Annex 3**.

Efforts are being made to facilitate the special session from donors so as to enable participation by ST (ASB) country membership.

**Item 7 : Issues on "Scientific and technical framework of transfer of Siberian water to Central Asia"**

While deliberating various issues, Prof. Dukhovny informed that the region should concentrate its attention in the next 20-25 years on the efficient use of its own water and increase its productivity. The project on 'transfer of water' has sound viability for tackling the problems of Siberia from excess water and ASB from water scarcity by mid 21st century. But the real needs of Central Asia will depend on many factors such as characteristic of the region in terms of self-sufficiency in food and development of irrigation, global prices of agricultural produce, political and social situation in the region and in the neighbouring states. New option for future situation keeping in view the emerging socio-economical scenario in Central Asia was explored by SIC-ICWC and IWMI using PODIUM model.

The Chairman, ST-ARAL also brought to the notice of the members regarding new political movement in the sphere of Euro Asian Economic Council, which helped to generate fresh interest in the future of transfer of Siberian river flows to the region of Central Asia. The Russian Government and National Committee of ICID are in the process of working out modalities for framing plans considering socio-economic, ecological and technical aspects and the feasibility.

Mr. Acad. Boris Kizyaev, Member, ST-ARAL informed that the plan was political having social implications. The Government has yet to work out the feasibility. In 2-3 years, some result could be expected.

The Central Office requested (11 May 2009) Mr. Acad. Boris Kizyaev (Russia) to provide update on the above issue. In response, VPH Dukhovny informed (18 May 2009) that he has brought out the issues in his presentation which are available on their website.

Chairman will apprise the members about further progress during the meeting.

**Item 8 : Need for developing linkages with WG-CLIMATE**

In the 13th meeting (2006), Prof. V. Dukhovny stressed the need for including more work on socio-economic aspects addressing issues like reduction of poverty, provision of livelihoods etc through implementation of improved water management practices.

VPH Dukhovny, Chairman, ST-ARAL brought the following three issues to the attention of Chairman, WG-CLIMATE:

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- (i) Impact of change in precipitation, temperature and humidity of air on the water resources of region
- (ii) Impact of glacier melting on the river flow and
- (iii) Impact of climate change on the water consumption of crops.

The Chairman, WG-CLIMATE agreed (2007) to consider the aspects under the purview of WG-CLIMATE.

During the 14th meeting at Sacramento (2007), it was suggested to continue the discussion on ST-ARAL through E-mails.

Chairman may like to apprise the progress during the meeting.

**Item 9 : Any other business**

President Hon. Lee had an invitation from H.E. Mr. Rustam Azimov, the First Deputy Prime Minister of the Republic of Uzbekistan to take part in the International Conference "The Problems of Aral : Impact on the Gene Pool of Population, Flora, Fauna and International Cooperation for Mitigating Consequences" scheduled during 11-12 March 2008, Tashkent. While thanking the Deputy Prime Minister of the Republic of Uzbekistan, the then ICID President sent his regrets for his inability to attend the event due to prior commitments and suggested representation of ICID at the conference through ICID Vice President Hon. Victor Dukhovny, Director, Scientific Information Center of Interstate Commission for Water Coordination, Uzbekistan.

Chairman may apprise the members.

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**SPECIAL WORK TEAM ON ARAL SEA BASIN (ST-ARAL)****5th World Water Forum  
GWP Sub-regional side event (SE 026)  
on  
'Climate Change, Water Resources Management,  
Governance and Capacity Building Issues in Central Asia and Caucasus'  
18 March 2009 at Istanbul, Turkey****Background**

The CACENA (Caucasus and Central Asia) region can geographically be subdivided into two subregions:

The Southern Caucasus (three countries – Azerbaijan, Armenia and Georgia), and Central Asia (five countries – Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan). There is a big differentiation in renewable water resources availability among the countries within each subregion.

The biggest part of the territory is located in the arid and semi-arid climate, and irrigated agriculture accounts for about 85-90 % of total water use. The most common challenging issues for the Caucasian sub-region are the low access to proper drinking water supply and sanitation, water ecosystems degradation, floods and, in some zones, water scarcity. For Central Asia there are increasing water deficit and water ecosystems degradation. Transboundary issues (conflicting interests for water among upper and downstream countries) are common for the whole CACENA region.

There are principal efforts undertaken by national water authorities mostly addressing to implementation of the integrated water resources management (IWRM) principles towards sustainable development and MDGs achievement in all eight countries. These include public participation in decision making, promoting political will to cooperation among sectors and countries, initiating dialogues among all stakeholders and support to practical actions at local levels. Due to active role of the Regional Water Partnership (RWP) CACENA in a close cooperation with the Executive Committee of International Fund for the Aral Sea Saving (EC IFAS) and the Interstate Commission for Water Coordination (ICWC) a lot of joint activities have been implemented, as a result of which good relationship has been established between water related professionals from all countries. During the regional meetings within the framework of RWP CACENA, exchange of information and management experience takes place between the principal stakeholders. The RWP CACENA provides favorable conditions for integrating not only into the GWP network activities, but together with the IFAS and other regional processes also for involving local partners into activities supported by other international organizations and donors.

**Main Challenges and Actions**

There are a number of challenges for sustainable water resources management in Central Asia and Southern Caucasus, which are predetermined by the following destabilizing factors:

- *Population growth*, although its rates have reduced in comparison with the last quarter of the 20th century, makes up not less than 1.5% per year resulting in significant, additional demands for water;
  - *Urban population growth* and expanding urban areas causes additional pressure on the water resources;
  - *Changes in crop pattern* due to restructuring of agriculture there is tendency to produce more highvaluable crops;
  - *Climate change* causes increasing water requirements for agriculture and more often recurrence of extreme flood and drought events;
  - *Progressing instability in world prices on agricultural production* against increase in costs of agricultural inputs makes the irrigated farming less cost-effective, at the same time there are no alternatives to irrigation due to its high social significance for the region (about 60% of rural population rely on it).
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- *Worsening of the competition for water resources between upstream and downstream countries* - mainly due to shifting the water flow regimes towards the interests of maximum hydropower production, especially in winter time – created serious friction in regional cooperation.
- *Possible increase in water withdrawals from the Amudarya river by Afghanistan* after stabilization of its economic situation will add stress on the actual water balance.

There are also a number of *internal challenges*, which should be added to those listed above:

- *Lowering the accuracy of water resources accounting/registration and forecasting*, resulting in unproductive water losses along river channels;
- *Obsolescence and degradation of water infrastructure* at all levels of water management hierarchy resulting in increase of unproductive water losses and deterioration of monitoring;
- *Low level of capital investments to rehabilitation and upgrading water infrastructure*;
- *Increased number of end water users (farmers)*;
- *Insufficient financing of Operation and Maintenance (O&M) resulting in loss of skilled personnel*.

The principal outcomes of the CACENA side event were as following:

**a. Climate Change**

- i. EC IFAS presented recently completed regional report on Climate Change in Central Asia, which shows the real picture of the challenging issues region will face in coming few decades
- ii. Tajik Minister of Land & Water to look at less water consuming crops. This initiative was supported by other water leaders from CACENA countries
- iii. Agreement of immediate need improved water efficiency among key actors
- iv. Actions to be taken for improved water quality

**b. Transboundary Cooperation**

- i. Water leaders from the region confirmed their commitment for cooperation and looking to the GWP CACENA as a neutral platform for transboundary dialogues
- ii. ADB is happy with progress and will support further efforts towards new agreements

**c. Water Governance**

- i. IWRM is a baseline for on-going reforms in water sector over the region
- ii. Uzbek delegates called to build cooperation on the UN Convention 1997 principles. In response, Tajik delegates proposed Central Asian Convention on Water

**d. Capacity Building**

- i. The need for joint regional capacity development umbrella was stressed to coordinate all actors involved (local, regional, international donors and agencies, etc.)
  - ii. Build on achievements from Swiss financed IWRM project in Fergana Valley (led by ICWC and IWMI) with involvement GWP CACENA, UNDP and CapNet
  - iii. Universities of Helsinki and Montana ready to cooperate for growing new generation of water leaders
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**Some ideas on follow-up activities after 5th World Water Forum:**

- Meeting of ICWC in April 2009 – to discuss outcomes of the 5th World Water Forum and follow-up activities.
- Meeting of Presidents of the IFAS countries in Kazakhstan – to discuss further Joint Aral Sea program activation.
- Give input to the “Wider Europe Initiative” proposed by Finland on its water component
- Cooperation with Helsinki University of Technology on a 2009-2010 Caucasus curriculum on IWRM for young water professionals
- A number of working regional meetings under umbrella of “Transboundary Dialogue” to discuss progress on interstate agreements, which are under preparation with support from ADB and conducted by EC IFAS (certain contribution to dialogues will be made by GWP CACENA with involvement of Finland).
- Launching new program for CACENA jointly with WWC and IUCN “Water Governance” –summer 2009 (expected Finland involvement – details will come later).
- Special session during Regional Asian Conference of ICID in December 2009 – to discuss further collaboration program for the Central Asian countries.
- Preparations for the 2nd Asia-Pacific Water Summit to be held in Singapore in June 2010

Additional information on: [www.cawater-info.net](http://www.cawater-info.net), [www.gwpcacena.net](http://www.gwpcacena.net)

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**SPECIAL WORK TEAM ON ARAL SEA BASIN (ST-ARAL)****APWF and Aral Sea Basin**

One of the decisions in the 4th WWF held in Mexico in 2006 was to involve the region's water ministers and establish an effective mechanism that will encourage more collaborative efforts on water resources management. It was hoped that this will accelerate the process of integration of water resources management for the socio-economic development effectively in the Asian and Pacific regions. This resulted in the creation of an Asia-Pacific Water Forum (APWF).

The 1st meeting of APWF was held in Beppu, Japan in December 2007. The forum identified that the 'Aral Sea Basin' agenda is unique and is of the global importance and recommended a UN recognition for concerted action.

- In the 1st Asia Pacific Summit, while making the speeches by the heads of the Government pertaining to Central Asian Countries, the President Republic of Tajikistan and Vice Prime Minister of Kyrgyzstan agreed that the economy and vulnerability of water related disaster need a cooperative approach. This was particularly so to solve water related issues including those of the ASB. Increasing investment levels, particularly in rehabilitating their country's ageing water infrastructure were asked for and mentioned that it require immediate attention.
- In the 1st Asia Pacific Summit, the Asian Development Bank (ADB) reported on their commitment to boost water investments in the ASB region. The intended outcomes of the ADB Water Financing Programme (WFP), which was launched in the 4 WWF by the ADB for a new five-year WFP, were also presented in the meeting. The WFP will direct new investments at rural communities, cities and heart of the water sector, river basins. Under the WFP, the ADB enhanced actions of interest in water. Well over US\$2 billion annually was allocated between the periods 2006 -2010 (4 WWF Synthesis, 2006).

Aral Sea Panel Session on 'Commitment for Ensuring Water Security in the Aral Sea Basin – Cooperation versus Competition' was organized during the 1st APWS. The summary report of the session follows:

The Aral Sea crisis is the disaster of the 20th century. It will require huge efforts to solve the Aral Sea basin problems. Efforts have been made in last 15 years, but many problems still remain to be solved. The Large Sea is shrinking continuously. The problem is worsening due to global climate change, population growth and economics of the Central Asian countries.

The Aral Sea Panel Session has been organised to discuss existing problems and propose new initiatives to achieve sustainable water management in Central Asia.

The session was Chaired by President of the World Water Council Mr. Loich Fauchon and attended by the President of the International Fund for saving the Aral Sea, President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon, officials from Central Asian countries, representatives of the international organizations, academics, NGOs, private sectors and media. The problems of the Aral Sea Basin in the context of the Priority Themes of APWF were discussed within the framework of the session. The initiatives proposed were:

- Offer the International Fund for saving the Aral Sea; the status of the United Nations Institute for coordination of activities of international organizations and donors. Also announce the Aral Sea Basin as the priority region for achieving the Millennium Development Goals.
  - Support the initiative of the Government of the Republic of Tajikistan about organization of an International Conference on water related disaster reduction in 2008 in Dushanbe, during which the outcomes of the 1st Asia-Pacific Water Summit were shared.
  - Promote the creation of the Aral Sea Basin Public Water Council.
  - Create a Central Asian sub-regional Centre of the Asia-Pacific Water Forum in Dushanbe, Republic of Tajikistan
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**SPECIAL WORK TEAM ON ARAL SEA BASIN (ST-ARAL)****Special Session on Aral Sea Basin Initiative**  
**“Water and Food Security in Central Asia”**  
**10 December 2009, 09.30-13.15 Hours****During 60<sup>th</sup> IEC Meeting and 5<sup>th</sup> Asian Regional Conference**  
**5-11 December 2009, New Delhi, India****Introduction**

The Aral Sea basin countries have been facing challenges of ensuring water and food security, at the same time preserving natural entities, such as rivers and their catchments, other water bodies and land, aiming at sustainable natural systems. Climatic changes reflected by more frequent extreme phenomena (floods and droughts), as well as other factors, such as population growth, intense rural migration, incomplete agricultural restructuring, growing water use for both agricultural and energy needs make the countries in the region paying more attention to water management improvement, based on current world trends.

A need for better water management can be illustrated by the analysis of water and environmental conditions during the recent past. For example, in the Syrdarya river basin, the Kyrgyz farmers suffered from shortage of irrigation water as their brothers in Uzbek and Tajik territories of the Fergana Valley and had to bear substantial losses. Evidently, for better water availability, it is necessary to ensure long-term flow regulation and even put into operation new hydro-schemes storing water in non-growing season during wet years and partially releasing water in dry years. However, all these structures should be operated, according to interstate agreements, in a way beneficial for all riparian countries, taking into account conservation of water and energy resources and non-infringement of environmental interests. It is therefore necessary for all stakeholders to learn lessons from the recent developments by reconsidering strategies and identifying ways of development that would bring maximum regional benefits in hydro-energy production, irrigated agriculture and environment.

There exist a stiff competition between irrigated agriculture, hydro-energy, and environmental conservation exacerbated by substantial deficit of investments in water resources development and modernization of water sector, taking into consideration an increasing gap between the prices of agricultural produce and hydro-energy. Moreover, continuous growth of electricity prices, with the proposed two-fold increase by 2025 makes other water uses, including irrigated agriculture uncompetitive as compared to hydro-energy production. Nevertheless, the socio-economic importance of irrigated agriculture and environmental conservation for more than 50 millions people living in the Aral Sea region cannot be ignored in view of the quite low incomes of rural people (which accounts for more than 60% of the total population).

**Integrated Water Resource Management**

Measures for improvement of water availability include shifting to the integrated water resources management approach. Besides, the already implemented ‘hydrographic approach’, public participation through involvement of water users in both management and maintenance of systems should be practiced. The integration of all water hierarchy’s levels to reduce organizational losses, conjunctive use of ground, surface, and return waters, and improvement of water and land productivity, and water conservation are to be kept in view. Moreover, water conservation and efficient water use measures should be aimed at reducing the general withdrawal by all sectors from all sources, at least by 20 % by 2025. Possibility of such saving in the region is proved by the results of the project “Integrated Water Resources Management in the Fergana Valley”, which is implemented since 2001 within Kyrgyzstan, Tajikistan, and Uzbekistan under support of the Swiss Agency for Development and Cooperation.

Along with this, deterioration of irrigated lands through widespread increase of land salinization is particularly alarming. At present, the area of medium and heavy saline lands is more than 3 million hectares causing a huge damage to agriculture. Other challenges in the region are - ageing infrastructure, lack of financial resources, aging of staff, lack of qualified personnel (brain drain), poor level of professional training, and weak development of economic mechanism. Thus, under prevailing conditions, it is very important to undertake coordinated actions and joint management by developing transboundary cooperation in water sector. Exchange of best practices and

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technologies in the area of water resources management, capacity building in water sector through specialized training are of importance.

### **Objectives of the Session**

The main objective the session is to acquaint ICID members/ professionals with the Aral Sea basin problems through presentations of approaches and solutions by water experts from the Central Asian countries. It is also intended to initiate dialogue with experts from other countries and international organizations in order to develop general recommendations for improving prevailing water and environment related situation of the region. As an outcome of the session, on the basis of overall discussions and recommendations, it is expected that the participating member countries of the Aral Sea region will prepare and submit proposal for modernization of irrigated agriculture with due consideration of the environment for submitting to respective national governments in the region.

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