

## REPORT

on

### **the national workshop conducted in Kyrgyzstan within the Joint UNESCO-IHE and SIC ICWC Central Asia Project “Capacity Building for Integrated Water Resources Planning and Management for Central Asia”**

**1. SIC ICWC of Central Asia together with UNESCO-IHE** (Institute for Water Education, UNESCO IHE, Delft, Netherlands) implements the project named “Capacity Building for Integrated Water Resources Planning and Management for Central Asia”. One of the project objectives is development of training system in the water sector of the five Central Asian (CA) countries.

In 2010-2011, a series of regional workshops for preparation of national trainers (training of trainers) was delivered with the assistance of key experts of the foreign project partner (Institute for Water Education) and by using the resources of SIC ICWC in four training blocks:

- Block № 1. Integrated Water Resources Management (IWRM);
- Block № 2. Improvement of Irrigated Agriculture (IIA);
- Block № 3. International Water Law and Policy (IWLP);
- Block № 4. Regional Cooperation in Transboundary Rivers (RCTR).

Leaders of each Block (regional trainers) - leading experts of SIC ICWC - have developed training programs, training modules, and prepared a package of necessary training materials.

The next stage of the training related activity under the project will include delivery of national workshops in each of the five countries of the Central Asian region.

National workshops were held in Uzbekistan in Tashkent city, Samarkand, and Fergana during 12-21 September 2011. The topic of the national workshops – «Organization of hydrometry, planning of water use, and improvement of WUA activities» fitted the subjects of several modules in the Block № 1 (IWRM) and the Block № 2 (IIA).

The national workshops in Kazakhstan were held in the towns of Kyzylorda and Shymkent during 8-12 November 2011. The topics of these workshops covered all the above-mentioned 4 training blocks/directions (IWRM, IIA, IWLP, RCTR).

**2. A national workshop in Kyrgyzstan** was held in Bishkek city on 8-9<sup>th</sup> of December 2011.

The topic of this national workshop covered all the above-listed training blocks/directions as in Kazakhstan.

The trainees (“target” audience) included specialists from the sub-departments of State Committee for Water Resources and Land Reclamation of the Kyrgyz Republic (KR) (heads and deputy heads of basin water management authorities - BWMA, chiefs of their divisions (for water use, planning), etc.) and other water organizations. The lecturers of Kyrgyz Agrarian University (KAU) and specialists from the Irrigation Institute took part in the workshop as well.

Mr. E.Zh. Zhusumatov, Deputy Chairman of the Kyrgyz State Committee for Water Resources and Land Reclamation (SCWRLR) welcomed the participants of the training.

He also introduced to the trainees the general situation in the national water sector by underlining an importance of trainings in capacity building of Kyrgyzstan’s water workers and wished successful accomplishment of this workshop.

### **3. Moderators/lecturers:**

- (1) Mamataliyev N.P., national coordinator of IWRM-Fergana Project, national trainer for IWRM Block.
- (2) Kadyrbekov A.I., chief of division for Water User Associations (WUA) support and regulation, national trainer for IIA Block.
- (3) Sakhvayeva Ye.P., chief of information-analytical division of SCWRLR, national trainer for IWLP Block.
- (4) Satimkulova G.S., national expert in water-related problems, national trainer for RSTR Block.
- (5) Drugalyova Ye.E., head of the sub-department “Land reclamation and water management” at KAU, trainee of Joint Project of SIC ICWC and IHE-UNESCO “Capacity building...”, invited lecturer.
- (6) Polyak Ye.G., expert from Irrigation Institute, invited lecturer.

### **4. Main issues addressed (Block, reporter, lecturer):**

The workshop was opened by the report of Mr. E.Zh. Zhusumatov, Deputy Chairman of SCWRLR.

#### **A) Lectures:**

- 4.1. Aims and objectives of the Program “Capacity building in integrated water resources management in KR” (IWRM, Mamataliev N.P.).
- 4.2. Fundamentals of IWRM. IWRM principles in the Akbura river basin (IWRM, Mamataliev N.P.).
- 4.3. Improved irrigated agriculture. Irrigated agriculture in Central Asia and KR in particular (IIA, Kadyrbekov A.I.).
- 4.4. Experience of shared water and energy management in transboundary rivers of KR (RSTR, Satimkulova G.S.).
- 4.5. Water issues, development and implementation of national IWRM plans. Water supply and demand management. Water governance and management (IWRM, Drugalyova Ye.E.).
- 4.6. Water requirements and water use planning (IIA, Kadyrbekov A.I.).
- 4.7. Experience, lessons and ways to reform the water sector and agriculture; implementation of IWRM: IWRM-Fergana Project case-study) (IWRM, Mamataliev N.P.).
- 4.8. Development and application of automated water control systems for transboundary waters in the Chu and Talas rivers (Polyak Ye.G., Polyak Ye.G.).
- 4.9. Fundamentals of international water law (international law of water resources). History: origin, evolution (IWLP, Sakhvayeva Ye.P.).
- 4.10. Forms and principles of water governance. Participatory principle. Transfer of irrigation system management (IWRM, Drugalyova Ye.E.).
- 4.11. Systems of international relations. International relations as a set of political, legal, and other kinds of communication between international legal entities (IWLP, Sakhvayeva Ye.P.).
- 4.12. Water use effectiveness: social and economic aspects. Models for financing water entities (IWRM, Drugalyova Ye.E.).
- 4.13. Integration of international water law norms into the Kyrgyz legislations. Agreements, the basics of regional water cooperation (IWLP, Sakhvayeva Ye.P.).

In particular, the lectures:

- on the Block “IWRM” addressed historical and current experience in national water governance, an importance of IWRM implementation, with the focus on wider public participation in IWRM and its information support by using the regional database - through SIC’s portals - CAREWIB, CAWATER-INFO. National IWRM plans were discussed. The illustration of improved water management effectiveness is given on the basis of IWRM-Fergana Project.

- on the Block «IIA», gave priority to water saving, water demand management, and water use planning.

- on the Block «RSTR», introduced to the trainees the experience of shared water management on the case-study of Chu-Talas Commission (Kyrgyzstan-Kazakhstan), methods and tools of comprehensive analysis of water and energy management in transboundary rivers in KR. Particular attention was paid to the economic basis of water and energy management, searching consensus on these matters at interstate and intersectoral levels, and the institutional structure of interstate water management along transboundary rivers of KR. The trainees actively participated in discussion of transboundary water use problems and other issues of transboundary water cooperation in the region, including implementation of SCADA systems for transboundary water allocation (using Chu and Talas rivers as an example). Thus, the trainees from Talas BWMA noted that SCADA, which has been operating for already 2 years, shortened significantly the time of calculations needed for receipt, distribution, and use of water resources in the Talas river basin and increased accuracy of water measurements.

- on the Block «IWLP», introduced to the trainees the system of international relations, the fundamentals of international water law (IWL) and so on. The interest was generated in origin and formation of water law in the region and in its development during the period of independence. IWL was presented as the history of continuous development of water and land relations in the region since the legal norms at Zoroastrism and the norms of Muslim water law (*shariah*, *adat*) and till the present situation, including the time of tsarist Russia and the Soviet period. Knowledge was shared on the basic water-related Conventions, such as of 1992 UNECE, 1997 UN, Aarhus, Espoo and others. One of critical points during discussions of IWL lectures was connected with the integration of principle “water is an economic good” into the interstate water relations in CA.

**B)** A role-playing game on “Elaboration of a regional strategy of integrated water and energy management in the Aral Sea basin’s countries” was played during the training. Here, the focus was placed on reaching consensus between the national interests of the Parties (riparian countries of the Aral Sea basin) related to usage of water and water-energy resources.

In general, the lecture stuff was based on actual data from the Kyrgyz water-management organizations and adapted to local specificities of water use.

The trainees and other participants of the national workshop received hand-outs on all topics of the training.

## **5. Participants** of the national training (quantity).

Totally, 36 persons participated in this national workshop and 26 persons from all areas of the republic have got training.

**6.** The workshop identified the most active trainees, who demonstrated the leadership skills. These trainees were recommended as potential trainers for each training Block (6 in total):

- Block No. 1 (IWRM) – Abdyrazakov B., chief of WUA support and regulation division, Osh BWMA.

- Block No. 2 (IIA) – Batyrkulov B., coordinator of WUAs, Talas BWMA.

- Block No. 3 (IWLP) – Abdyaev K., deputy head of Osh BWMA, Abdrasulov E., chief engineer, Naryn BWMA.

- Block No. 4 (RSTR) – Karimbayeva R., senior expert of water use issues division, Issyk-Kul BWMA, Murzaliev N., first deputy head, Chu BWMA.

**7. Assessment of the training course and teaching quality** (the assessment was carried out using a five-point scale (5 points – excellent; 4 points – good; 3 – satisfactory; 2 – unsatisfactory; 1 – bad), overall score broken down by positions and in total, as the arithmetical mean).

(Note: in the original questionnaire these scores are given in the following form: «I absolutely agree» (5); «I agree» (4); «Neutral» (3); «I do not agree» (2); «I absolutely disagree» (1)).

As contrasted with the national training in Kazakhstan, where the general assessment for the course was given, in Kyrgyzstan each lecturer was assessed separately. In total, 94 questionnaires, including for lecturers, were processed:

- Sakhvayeva Ye.P., national trainer (IWLP block) – 18 questionnaires (18 trainees of 29 ones gave their opinion, which is 62.1 % of the total questionnaires distributed),
- Satimkulova G.S., national trainer (RSTR block) – 18 (62.1 %),
- Mamataliev N.P., national trainer (IWRM block) – 17 (58.6 %),
- Kadyrbekov A.N., national trainer (IIA block) – 16 (55.2 %),
- Drugalyova Ye.E., invited lecturer (IWRM block) – 15 (51.7 %),
- Polyak Ye.G., invited lecturer (RSTR block) – 10 анкет (34.5 %).

In total, a little more than half of trainees - on average 54% - gave their opinions about the course (filled questionnaires returned back out of the total quantity of 174).

(Note: in Kazakhstan, trainees were more active in estimation of trainings: 88.5 % in Shymkent and 84.6 % in Kyzylorda).

The averaged estimations (in brackets – estimation variation limits), the indicators are arithmetical mean rather than weighted average:

- (1) Teaching quality (goal of training reached) – 4.1 (4.0-4.3);
- (2) Quality of training materials (easy to understand) - 3.9 (3.8-4.1);
- (3) Relevance of the prepared training materials (topics) – 4.3 (4.1-4.6);
- (4) Enough time for questions and discussions – 4.0 (3.8-4.3);
- (5) Ratio of theory and practice – 3.9 (3.7-4.0);
- (6) Enough time for familiarization with lecture materials – 3.9 (3.8-4.1);
- (7) Method of evaluation of knowledge got by the trainees upon completion of the training courses – 4.0 (3.8-4.1).

The general (integral) score given to the training course – 4.2 (4.0-4.4).

It is notable that high scores were given to the invited lecturer Mrs. Drugalyova Ye.E., Head of the sub-department “Land reclamation and water management” at KAU, who, as mentioned earlier, was a trainee of the regional workshop in Tashkent. She has high mean scores on items (1), (2), (4), and (7), including highest scores on some of them. According to trainees’ opinion, she is leading among the lecturers in terms of teaching quality. This emphasizes once again an importance of involving lecturers from educational institutions of respective specialization in capacity building in the water sector since they possess professional skills and experience in education.

The trainees gave well lower scores to the national training in Kyrgyzstan as compared to national workshops in Kazakhstan (Shymkent – 4.7; Kyzylorda – 4.8). The latter is explained

by higher expertise of national trainers (professor from the Kazakh National Agrarian University; Director of South-Kazakhstan branch of the Republican State Enterprise “Kazvodkhoz”) and invited lecturers with extensive experience of practical work (deputies head of Aral-Syrdarya Basin Inspection).

The lowest average scores were given to the items «Ratio of theory and practice» (5) – 3.9 and « Enough time for familiarization with lecture materials» (6)– 3.9.

The explanation can be similar to that given regarding the same low score of the item «Ratio of theory and practice» (4.5) in case of national workshops in Kazakhstan. This is due to time constraints of the workshops (2-3 days in Kazakhstan and 2 days in Kyrgyzstan).

Similar to workshops in Kazakhstan, the time constraints and a wish to cover the topics of all 4 training Blocks in Kyrgyzstan did not allow making practical exercises (for example, on IIA Block) and testing the acquired skills as was the case during national workshops in Uzbekistan, where narrower (“module”) target limited by hydrometry subject-matter was formulated.

This circumstance (workshop time limitation) was also mentioned in the trainees’ comments.

### **8. Main comments of trainees:**

8.1. The training is extensive, and the two-day workshop was not enough. The training stuff is massive and requires more time for studying.

8.2. It is advisable to conduct such trainings, including practical exercises, at the low level - from rayon (district) level and lower (WUAs, farms). For example, this includes training of water users (farmers) in adequate and efficient use of irrigation water and wise management of irrigated land;

8.3. It is necessary to examine in detail the issues related to enforcement of a number of requirements stipulated in the Kyrgyzstan’s Water Code, updating of Provisions on payment by water users for water delivery services in mountain regions and under complex climatic conditions in some areas in the Republic (for example, in Issyk-Kul province);

8.4. The issues of interstate water allocation in Issyk-Kul province need to be solved on the basis of experience of developed countries in joint water management;

8.5. Identify ways for solving the problem of river pollution by the gold-mining company “Kumtor”; etc.

Particularly, the trainees raised the problem of huge brain drain due to low salaries of staff in the water sector and proposed to apply to the National Government for consideration of this problem.

**9. The information about the Joint UNESCO-IHE and SIC ICWC Project** “Capacity Building in the Integrated Water Resources Management and Planning in Central Asia”, its goals and main objectives in part of training was presented by Mr. Zhusumatov E.Zh., Deputy Chairman of SCWRLR, and Mr. Mamataliyev N.P., national coordinator of IWRM-Fergana Project and national trainer.

The workshop participants thanked the organizers and lecturers for this training and stressed the importance of the trainings for building educational capacity of water specialists.

The staff of the ICWC Training Center made organizational arrangements under preparation of the national workshop in October 2011 in cooperation with the persons in charge of national workshops in Kyrgyzstan. The interest and proper assistance of the leadership of SCWRLR KR in organization of the workshop played a big role.

The workshops held in Kyrgyzstan, Kazakhstan and Uzbekistan have shown that the national trainers trained at regional workshops have acquired required skills, become armed with

training materials, and are able to deliver trainings in the region's countries on their own and at a highly professional level, with adaptation to local specificities.

The national workshop conducted in Kyrgyzstan and training approaches were close to those in Kazakhstan - the trainees were provided knowledge within the framework of all 4 training Blocks of the project. The main difference was that two workshops in two provinces were held in Kazakhstan, whereas in Kyrgyzstan, one workshop covered trainees from all republican provinces.

As was mentioned earlier, 3 trainings were held in Uzbekistan (taking into account regional characteristics of the republic and in order to save money and involve wider community of trainees), and the workshops were limited by one autonomous module dedicated to hydrometry (water accounting, water use planning at low level, and other issues).

In all three cases (national workshops in Kyrgyzstan, Kazakhstan and Uzbekistan), they applied the approaches, methods, training materials worked out and tested by SIC ICWC together with its foreign partners (experts from the Institute for Water Education, UNESCO IHE, Netherlands).

While finalizing given Report (February 03, 2012), a national workshop was held in Turkmenistan (January 26-31, 2012). Currently organization of two national workshops is underway in Tajikistan.

Particularly, the Tajik Ministry of Land Reclamation and Water Resources approved these national workshops in two areas - Khojent city and Dushanbe city and preliminary dates were set: late February - early March 2012.

Note: some delay with composition of given Report is due to delays with provision of materials on the national workshop in Kyrgyzstan. For example, information on assessment of the course was received in late January.

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