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EXECUTIVE BOARD OF THE INTERNATIONAL FUND FOR
SAVING THE ARAL SEA IN THE REPUBLIC OF KAZAKHSTAN

**REPORT OF THE TRAINING WORKSHOP ON ESTABLISHMENT OF AN
INTERNATIONAL TRAINING CENTER FOR THE SAFETY OF HYDRAULIC
STRUCTURES IN THE CITY OF TARAZ¹**

KAZAKH NATIONAL SCIENCE AND RESEARCH INSTITUTE
OF WATER ECONOMY

Taraz, Kazakhstan
11-15 February 2013

¹ This report has been issued by the Environment Division of the Economic Commission for Europe (UNECE) and the Executive Board of the International Fund for Saving the Aral Sea in the Republic of Kazakhstan.

1. On 11-15 February 2013, the Kazakh Science and Research Institute of Water Economy (KazSRIWE), Taraz, has held a training seminar to provide advisory assistance on THE organization of an International Training Centre for the Safety of Hydraulic Structures.
2. The training seminar was organized by the Executive Board of the International Fund for Saving the Aral Sea in the Republic of Kazakhstan, in close cooperation with the Ministry of Emergency Situations and the Committee for Water Resources of the Ministry of Environmental Protection, with financial support from the United Nations Economic Commission for Europe under the third phase of the regional project “Dam Safety in Central Asia: capacity building and regional cooperation”.

1. Background

3. Hydraulic Structures (HS) are unique objects, which imply a specific nature and complexity of their operation. Until now, many countries of Central Asia have not yet established state regulation for ensuring the safety of hydraulic structures, which reduces not only the effectiveness of measures, but also prevents the development of strategic cooperation in this area. The regulatory framework governing the HS safety is either outdated, or was formally adopted from industrial and construction sectors. There are not always properly maintained State Registers of hydraulic structures; modern means of monitoring and diagnostics of the facilities are being introduced very slowly. Still, there are no developed state policy concepts to govern this area; there are no clearly defined HS safety state supervision functions. At the same time, there are also differences in approaches to ensure the HS safety between the countries. Specific legislation only exists in Tajikistan and Uzbekistan.

In these circumstances, the burden of handling the safety issues had been imposed directly on the HS operators, leading to a sharp increase in the probability of emergencies.

4. In addition, there is a natural process of aging of the hydraulic structures most of which were built 30-40 years ago and now require systematic monitoring of their technical condition and appropriate repair work meeting modern requirements. However, lack of appropriate funding for these activities increases the likelihood of accidents in the HS.

5. In addition to the issues above, the countries of Central Asia face a very urgent need for ongoing strengthening of human resources, i.e. along with a set of social support measures aimed to ensure the stability of cadres, there is a need for a continuous process for improvement of knowledge and skills of the concerned government officials and employees of water management organizations.

2. Objectives of the Workshop

6. Since 2004, the UN Economic Commission for Europe, in close cooperation with the EC IFAS and the governments of Central Asia, with the financial support of the Government of

Finland and additional funding from the Government of the Russian Federation, has been implementing the regional project “Dam Safety in Central Asia: capacity building and regional cooperation”. The project aims at building the national capacity in dam safety and strengthening of regional cooperation in this area. To date, the second phase of the project is finalised and the third phase of the project has been initiated.

In Kazakhstan, the project is focused on the following areas:

- preparation of comments and proposals to the regional agreement on cooperation on dam safety in Central Asia;
- development of a draft national law on dam safety;
- development of technical regulations for dam safety;
- establishment of the International Training Centre on Dam Safety in the city of Taraz;
- organization of training courses in hydraulic structures safety for managers.

7. In recent years, Kazakhstan has been actively working to establish the International Training Centre for the Safety of Hydraulic Structures. The establishment of this center was supported by the Ministry of Emergency Situations of Kazakhstan, Water Resources Committee of the Ministry of Agriculture (*before reorganization, the WRC used to be a part of the Ministry of Agriculture*) and the Department of Land Reclamation and Water Resources of the Kyrgyz Republic, which has expressed its willingness to send their experts to vocational courses. The establishment of the International Training Center was discussed and found support at a meeting of the bilateral Commission on the use of interstate water facilities at the Chu and Talas rivers.

8. The training Workshop was aimed at providing advice from the practical experience of the Gosvodkhoznadzor (State Supervisory Authority for Water Management) Diagnostic Center of Uzbekistan.

3. Participants

9. The Workshop was attended by 28 water experts from the Kyrgyz Republic, Republic of Uzbekistan, stakeholder ministries and state bodies of the Republic of Kazakhstan, KazSRIWE experts and provincial water utilities agencies of the Water Resources Committee under the Ministry of Environmental Protection, the list of which is annexed to this report.

4. Opening of the Workshop

10. The Workshop was opened by Mr. Kenshimov A.K., deputy director of the EB IFAS in the Republic of Kazakhstan, who noted that many large dams and hydraulic structures in Kazakhstan require large and growing capital investments to repair and monitor their condition. He emphasized that in order to ensure dam safety, the regulatory framework on dam safety needs to be further improved, staff of the relevant regulatory bodies, operational and other water organizations needs training and re-training.

11. Another welcoming speech to the participants of the Workshop was delivered by Mr. Talipov Sh. G., representative of Gosvodkhoznadzor of Uzbekistan. He noted that Gosvodkhoznadzor experts are ready to provide advice to the International Training Centre in Taraz in setting up the training process.

5. Approval of the Workshop Agenda

12. The Workshop adopted the following agenda:

- 1) Opening of the Workshop;
- 2) Presentations on the following topics:
 - inspection,
 - modern technologies to ensure safety of hydraulic structures,
 - modeling situations affecting the safety of hydraulic structures,
 - challenges in diagnostics of technical condition of hydraulic structures,
 - maintaining the HS Cadastre,
 - ensuring safety and monitoring of pumping stations,
 - ensuring safety of HS through field observations using geodetic methods, etc.;
- 3) Visit to Kirovskoye reservoir (Kyrgyzstan) and Talas dam (Kazakhstan);
- 4) Developing recommendations of the Workshop;
- 5) Miscellaneous;
- 6) Closing of the Workshop.

6. Presentations of the Workshop participants

13. Presentations were delivered by the Uzbekistan Gosvodkhoznadzor experts. During the 4 days, more than 32 presentations were delivered on the topics listed above.

14. In addition, the Gosvodkhoznadzor experts presented draft curriculums and a list of necessary equipment for the training center laboratory. The titles, purposes and specifications of the devices and equipment were presented on slides, followed by the addresses of web-sites where more detailed information can be obtained, and a purchase order can be placed.

15. Workshop participants commended the high quality of presentations and professionalism of the speakers from the Gosvodkhoznadzor of the Republic of Uzbekistan.

7. Other activities

16. On 13 February 2013, participants of the Workshop visited the Kirovskoye reservoir (Kyrgyzstan) and Talas dam (Kazakhstan), to familiarize themselves on-site with the structural features of HS, learn more about the issues of concern in operation of the HS and their equipment with instruments and devices.

17. The Workshop materials will be used to publish a compilation of documents, and some pre-announced materials were distributed to all the participants on CDs.

18. The Workshop participants received certificates for participation in the training on establishment of the International Training Centre on HS Safety in Central Asia at the KazSRIWE in Taraz.

8. Conclusions and recommendations

19. The Workshop participants made the following recommendations on the issues discussed:

- 1) To request the Executive Committee of the IFAS (Mr. Ibatullin S. R.) to apply to the UNECE for financial support to purchase instruments and equipment for the laboratories of the Training Center in Taraz.
- 2) To request the Executive Board of the IFAS in Kazakhstan to suggest to the appropriate government authorities of Kazakhstan to continue work on the development of a separate draft Law on HS safety in Kazakhstan.
- 3) To request the Executive Board of the IFAS in Kazakhstan in cooperation with the Executive Committee of the IFAS and the stakeholder ministries and departments of the Republic of Kazakhstan to intensify their efforts to accelerate the signing of the Regional Agreement on HS safety in Central Asia,
- 4) To ask the Water Resources Committee under the MEP to speed up the preparatory and organizational work for Kazakhstan's accession to the International Commission on Large Dams.
- 5) To request the Executive Board of the IFAS in Kazakhstan in cooperation with the UNECE to provide assistance in sending the Training center specialists for practical training to countries (Training centers) with advanced technologies and methods of HS operation, as well as in engaging international experts to study and subsequently implement international experience in dam safety;
- 6) Have the Training center to publish a booklet "On activities of the International Training Centre for hydraulic structures safety", and consider the possibility of creating their own website.
- 7) Have the Training center to intensify its activities in conformance with the goals and objectives stated in the Charter of the Training Center, and to develop close ties with the concerned government agencies and water organizations in the Republic of Kazakhstan and Central Asia, in order to continuously improve the educational process.
- 8) Have the Training center to speed up the compilation of the list of required instruments and equipment, and before March 31, 2013 apply to the relevant public and private entities and international donors for purchase thereof.

9. Conclusion

20. The process of ensuring safe operation of hydraulic structures is very active in Central Asia.

The Central Asian countries are interested in the establishment and development of the International Training Centre in Taraz for Hydraulic Structures Safety, to provide training, retraining and advanced training to relevant professionals.

21. The UNECE, IFAS and other international organizations provide support for the establishment of the International Training Centre for Hydraulic Structures Safety, which in the nearest future will provide education and advanced training to the personnel of concerned government agencies and water management organizations operating the hydraulic structures in Central Asia.

22. The Workshop participants expressed their gratitude for the UNECE financial support to the Workshop and to the Executive Board of the IFAS in the Republic of Kazakhstan for the good organization of the event.

**Список участников тренинга
по организации Международного Учебного центра по безопасности
гидротехнических установок в Центральной Азии.
11-15 февраля 2013г, г. Тараз, Казахстан**

**List of participants
of the training workshop on establishment of an international training center for hydraulic structures safety
in Central Asia, 11-15 February 2013, Taraz, Kazakhstan**

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