

Evaluation

**CAPACITY-BUILDING FOR COOPERATION ON DAM SAFETY
IN CENTRAL ASIA
PHASE 3 (2014-2017, E240, RUSSIAN FUNDING)**

Final Report
27.05.2017

Konstantin Karabanov, Consultant

Table of Contents

Executive summary	3
1. Introduction	5
2. Findings	6
3. Conclusions and recommendations	13
4. Annexes	15
1. Terms of Reference	15
2. Lists of reviewed documents	17
3. Survey questionnaire	22
4. List of interviewees and surveyed participants	25

Executive summary

There are over 100 large dams in Central Asia the safety of which is currently causing concern, and many of them are located on transboundary rivers. The majority of these dams were constructed 50-60 years ago, and the funds for their adequate maintenance have been limited¹. Taking into account the population growth in flood plains downstream from the dams, the failure of any dam may have catastrophic consequences - there have already been precedents of such accidents in the downstream regions and countries.

The United Nations Economic Commission for Europe (UNECE) has been continuously supporting Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) in the development of institutions, legislation, capacity building and sub-regional cooperation in dam safety. One of the initiatives was the *Capacity-building for cooperation on dam safety in Central Asia* project (hereinafter – the Project).

The first phase of the Project took place in 2006-2007, the second phase in 2007-2011, and the third phase started in 2012 and finishes in 2017. The third phase of the Project was implemented by the Environment Division of UNECE in collaboration with the Executive Committee of the International Fund for Saving the Aral Sea. Since 2014 the third phase has been funded mainly by extra-budgetary contributions from the Russian Federation.

The present evaluation of the 2014-2017 part of the third phase of the Project was performed at the request and for the benefit of the UNECE Secretariat and the Russian Federation, the latter being main donor. The **purpose** of the evaluation was to assess the relevance of the Project for the needs of the participating countries, its effectiveness, efficiency, potential for impact and sustainability of Project results.

According to the Project document (version of 21.11.2013), the overall objective of the third phase was to promote regional cooperation, as well as national legislation and institutions with regard to dam safety, thereby contributing to improved human safety and also trust in the building and advancement of the economic, social, and environmental situation in Central Asia.

The Project's **expected accomplishments** (EA) included:

EA1 Improved inter-state cooperation as well as awareness on dam safety and related issues in Central Asia

EA2 Improved national legislation and regulatory frameworks

EA3 Raised technical and legal capacity of experts and officials on dam safety issues

EA4 Improved safety and transboundary cooperation on individual dams

The **indicators of achievement** (I) were formulated in the Project document as follows:

I1 Platform for inter-state cooperation on dam safety in Central Asia established

I2 Improved national legislation and regulatory frameworks in a minimum of two countries

I3 Raised technical and legal capacity of at least 40 experts and officials on dam safety issues

I4 Improved safety and transboundary cooperation on minimum 2 individual dams on transboundary rivers

¹ United Nations Economic Commission for Europe. 2007. Dam Safety in Central Asia: Capacity-Building and Regional Cooperation. Water Series № 5. New York and Geneva: UNECE

The following **main activities** (A) were planned to be executed:

A1 Annual regional meeting for exchange of information and development of interstate cooperation

A2 Support to development of national legislation and institutions

A3 Annual regional capacity building event to “train the trainers” including supply of equipment for training

A4 Pilot activities on specific dams demonstrating technical solutions for transboundary safety monitoring

The evaluation was conducted in April-May 2017. It included a desk study of relevant documents, interviews (by telephone, Skype and face-to-face) of 20 Project participants, and a survey of 25 participants in the seminar on Dam Safety organized with the support of Rostekhnadzor of Russia in St. Petersburg on April 26-27, 2017.

The **main conclusion** of the evaluation is that the third phase of the *Capacity-building for cooperation on dam safety in Central Asia* project is very relevant, highly effective and efficient. The Russian Federation's contribution to the Project activities has been used towards the achievement of the four above-mentioned expected accomplishments and in accordance with the Project documentation.

In general, no significant obstacles to the successful implementation of the Project were reported; however, the progress was slowed down by a number of factors. Certain tensions between the countries in Central Asia and complicated national decision making mechanisms appeared to be the main challenges, thus reducing the Project's effectiveness.

The estimated impact of the Project includes improvements in various aspects of dam safety management in Central Asia countries, contributing to better environmental governance in the region. The development of the Project can provide valuable inputs to the process of the formation of a political, legal and institutional environment conducive to positive changes. However, according to the evaluation findings, the Project results sustainability might become a cause for concern: if the UNECE efforts are all completed at the present level of achievement, and limited funding is allocated by the Central Asia countries, some results of the Project may not be sustained.

Nevertheless, considering the complexity and immense scale of the dam safety issues facing Central Asia, the continuation of the Project may be desirable, and the Russian Federation may wish to continue supporting UNECE efforts. The further cooperation of UNECE with donors/partners and the increase in funding may allow extending the Project scale and matching it to the dam safety related needs of the countries in Central Asia.

The Central Asia countries could benefit from further support by the experts from the Russian Federation, who have expressed their interest in providing further advice and training on dam safety to the experts and officials from Central Asia.

1. Introduction

A. Purpose

The purpose of the evaluation was to assess the *relevance* of the Project for the beneficiary countries, and its *effectiveness* in reaching relevant outcomes and the intended beneficiaries. The evaluation also aimed at assessing the *efficiency* in the use of financial and human resources in reaching Project objectives. The Project's potential for *impact* and *sustainability* of the results were considered in the evaluation, bearing in mind that the safety of dams is best determined by accidents not occurring in the longrun.

The *relevance* of the Project is important as a basis for the discussion with donors and partner organizations for any future work by UNECE on dam safety. The assessment of the *effectiveness* will be used to frame the development of future sub-regional Projects in Central Asia including dam safety. The evaluation of the effectiveness assessed, for the benefit of the UNECE Secretariat and the donor, whether the activities and partnership with countries and international organizations had succeeded in achieving the expected accomplishments of the Project fully or partially, and to what extent Project activities were implemented in an *efficient* manner. The evaluation of *impact* was based on the analysis of evidence available via desk study and participant/stakeholder interviews regarding the changes and new developments with respect to dam safety, observable and anticipated during the period of the evaluation. Finally, the evaluation assessed how gender considerations were included the Project's design, execution and results.

B. Scope

The evaluation focused on activities completed during the 2014-2017 part of the third phase of the Project *Capacity-building for cooperation on dam safety in Central Asia* specifically, funded by the Russian Federation (E240). To the extent that information was made available in documentation and interviews, activities of partner organizations, previous relevant reviews or evaluations conducted, and other information which pertains to UNECE efforts in the successful execution of the Project were included in the evaluation.

C. Methodology

The methodology for the evaluation included the following:

1. Desk study of material found at the UNECE Project website (Project description, meeting reports, publications etc.) and other information provided by the Project Manager.
2. Interviews via Skype, telephone and face-to-face.
3. Analysis of a survey of Project participants and other stakeholders. The survey was developed by the consultant.

2. Findings

Relevance

According to the findings of desk research, interviews and surveys, the Project addressed key dam safety related issues in the region.

The countries in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) have been reported to be facing a serious problem of ageing dams that can threaten agriculture, energy production, infrastructure and households². Solving this problem requires a political, legislative and institutional environment conducive to positive change in the field of dam safety, as well as training and involving competent experts to work both on the legal and technical aspects of the issue.

For the most part, the Central Asian countries are lacking resources and impetus to develop this conducive environment; training experts and adopting innovative technical practices can also be a challenge. Taking this into account, the objective, expected accomplishments³ and activities of the Project are well matched to the needs and priorities of the participating countries of Central Asia.

The international cooperation issue addressed by the Project is particularly important for transboundary river dams that, on the one hand, can cause significant damage to the downstream areas in case of failure and, on the other, may have been the subject of a long-lasting dispute between the upstream and downstream countries. The Project's aim to improve safety of individual dams responded not only to the technical need for improvement, but also to the need of the Central Asian countries to have a demonstration object providing a model of technical upgrade that could be adopted in the region. The fact that transboundary issues had hardly ever been raised in other dam safety projects world-wide and also in the region makes this Project unique.

The findings also showed that the third phase of the Project was a logical continuation of the previous two phases, consistent with their achievements and outcomes. Whilst the earlier phases set up a dialogue space for the countries and resulted in the production of a model national law on the safety of large hydraulic facilities and of a draft regional agreement on cooperation on dam safety, the third phase focused on improving national legislation and institutional structure in individual countries, growing countries' capacity to take the developments forward, deepening the dialogue and cooperation.

Dam safety management is an important part of environmental governance and impacts the economic sustainability of countries in Central Asia. The Project can be regarded as a valuable contribution to the UNECE regular programme of work⁴.

² United Nations Economic Commission for Europe. 2007. Dam Safety in Central Asia: Capacity-Building and Regional Cooperation. Water Series № 5. New York and Geneva: UNECE

³ Project document version 21/11/2013

⁴ In accordance with the objectives of the Regular programme: Subprogrammes 1 and 4, Proposed programme budget for the biennium 2016-2017, UN General Assembly

Since the Project has been consistently addressing critical issues in the region, it can be concluded that its relevance is very high.

Effectiveness

On the whole, the efforts of UNECE in partnership with the International Fund for Saving the Aral Sea (IFAS), Organization for Security and Cooperation in Europe (OSCE), other partners⁵ and stakeholders, Rostekhnadzor and RusHydro representing the Russian Federation, resulted in the achievement of the expected accomplishments of the Project.

The inter-state cooperation and awareness on dam safety⁶ have been promoted via Project events and shared dam reviews, e.g. of Orto-Tokoi and Kirov dams. The main Project events included three regional meetings held in 2014-2017, six training workshops, and four workshops/seminars⁷, which allowed for experience exchange, learning, and continuation of the dialogue. Turkmenistan has been involved into the dialogue to a lesser extent than the other countries; however, its representatives still participated in the events. The Project has been playing the role of a platform for inter-state cooperation on dam safety in the region, and the Project Regional Meeting 2017 concluded with the stakeholders' decision to establish a regular dam safety forum in Central Asia⁸.

The Project has made a noticeable contribution to the improvement of national legislation and regulatory frameworks⁹ in the region. According to a representative of Kazakhstan¹⁰, the Project had a significant impact on amendments made to the Water Code of Kazakhstan in 2015 (new addition effective since 1 January 2016), and promoted the development of a draft law on dam safety expected to be considered by the Parliament of the Republic of Kazakhstan by July 2017. The Project also promoted the establishment of a dam safety control agency in Tajikistan (with the support of OSCE), and the development of Recommendations for improvement of dam safety legislation and regulatory framework in Kyrgyzstan¹¹. The corresponding national legislation in Tajikistan to a large degree builds on the “model legislation” developed in the previous phases of the Project.

The expected accomplishment related to raising the technical and legal capacity of experts and officials¹² in the region has been fully achieved due to the Project activities. The Project supported the establishment of the dam safety training centre in Taraz, Kazakhstan, and its six training seminars that took place in 2013-2016, with two more scheduled in 2017. It was reported by interviewees that since it was established in 2012, the centre had provided training to over 200 experts. Three more training events with participation of experts were arranged in Russia and Tajikistan in 2014 and 2017. Also, during the course of this Project a number of publications aimed at the improvement of capacity were produced, for example, “Modern

⁵ Eurasian Development Bank, Asian Development Bank, World Bank, United Nations Development Programme, Regional Environmental Centre for Central Asia, GIZ, International Commission on Large Dams

⁶ Expected accomplishment EA1, Indicator of achievement I1, Project document version 21/11/2013

⁷ Further details can be found in the Efficiency section below

⁸ Draft Report of the Regional Meeting on Cooperation on Dam Safety in Central Asia, Almaty, Kazakhstan, 01/03 – 02/03/2017

⁹ Expected accomplishment EA2, Indicator of achievement I2, Project document version 21/11/2013

¹⁰ As reported at the seminar in Saint Petersburg on April 26, 2017, and in a follow-up interview

¹¹ As reported at the seminar in Saint Petersburg on April 26, 2017

¹² Expected accomplishment EA3, Indicator of achievement I3, Project document version 21/11/2013

methods and technology for the safety of hydrotechnical installations” issued in 2015 and two other publications made in the same year¹³.

The Project activities aimed at the improvement of safety and transboundary cooperation on individual dams¹⁴ have resulted in safety reviews of two individual dams, two reservoirs and two hydraulic units. Draft exploitation rules for the Kirov dam were developed with the support of OSCE and a safety monitoring system was installed (2015) and tested (2016) on the Orto-Tokoi dam in Kyrgyzstan. The installation was performed with a contribution from the Swiss Agency for Development and Cooperation; the experts consulted during the course of this evaluation rated the system as highly efficient. Kyrgyzstan and Kazakhstan are currently considering the possibilities (including financial) for the Kirov dam safety upgrade.

Survey respondents and interviewees have reported that, in general, there were no significant obstacles to the successful implementation of the Project. In spite of certain tensions between Tajikistan and Uzbekistan, this Project has been characterized by good relations and dialogue within the Project framework. All countries have willingly participated and contributed to the exchange of information. Complicated national decision making mechanisms, including the allocation of funds, have been mentioned by some experts as the main challenges to the Project effectiveness in certain countries. In particular, in Kazakhstan the need to make funding available for inspections and other activities has been complicating the discussion around new legislation.

In general, the majority of Central Asia countries had a rather stable participation of experts; however, some of the participants surveyed pointed out that Turkmenistan had been changing representatives with no effective succession established.

The Project supported the overall objectives of the UNECE regular programme of work. The Project activities have contributed to the improvement of the participating countries’ capacity to manage dam safety related risks and thus to reduce the probability of dam failures. A dam failure may result in serious damage to human health, well-being of households, and the environment¹⁵. In consequence, building the capacity to manage dam safety related risks contributes to the improvement of environmental governance and performance throughout the region for safeguarding the environment and health. At the same time, dam failures may undermine the integrity of the infrastructure and economic sustainability of the concerned area, which creates a serious challenge to the sustained economic growth in case accidents occur repeatedly. Therefore, by contributing to the development of cooperation on dam safety, institutional and regulatory frameworks, the Project also contributed to the promotion of a regulatory environment conducive to sustained economic growth¹⁶.

¹³ Instructions for development, consultations and approval of rules for exploitation of hydrotechnical installation in Central Asia, 2015; Guidelines for the preparation of a national programme for safe exploitation of low-pressure hydrotechnical installations for countries in Central Asia, 2015

¹⁴ Expected accomplishment EA4, Indicator of achievement I4, Project document version 21/11/2013

¹⁵ For instance, on 11 March 2010 two dam failures in Kazakhstan caused death of at least 30 people and flooding of 397 households in total, and paralyzed normal everyday activities in these localities. Source: RBC News, <http://www.rbc.ru/society/12/03/2010/5704b6079a794714c9b520fa>

¹⁶ In accordance with the objectives of the Regular programme: Subprogrammes 1 and 4, Proposed programme budget for the biennium 2016-2017, UN General Assembly

In conclusion, having in mind the challenging political and social environment in which the Project has operated, and the immense scale of the issues that the Project has been addressing, the effectiveness of the Project can be considered as very high. The state of achievement on the date of evaluation is summed up in Table 1 of the “Conclusions and recommendations” section.

Efficiency

The present evaluation is focused on the main part of phase three of the Project funded by the Russian Federation and implemented in 2014-2017.

No major delays in the Project implementation schedule have been observed.

Within the limits of the present evaluation, a comparison of the Project budget and the outputs was performed.

According to the Project document (version of 21/11/2013), the annual budget of the Project provided by the Russian Federation was USD 100,000. The same document provides the following co-funding details:

- From UNECE in-kind: USD 20,000
- From participating countries in-kind: USD 30,000
- From other extra-budgetary projects: USD 25,000

The total budget provided by the Russian Federation over three years was USD 300,000. According to an overview of the Project finances provided by the Project Manager, the balance carried forward on 2 May 2017 was USD 14,000.

A detailed list of the outputs of the Project includes:

1. Three regional meetings in 2014-2017: Bishkek, Kyrgyzstan, November 11-12, 2014; Almaty, Kazakhstan, December 3-4, 2015; Almaty, March 1-2, 2017.
2. Development and release of a text-book with a CD on the safety of hydrotechnical installation, 2014, with the support of the Eurasian Development Bank, second edition released in 2016.
3. Arranging six workshops at the training centre in Taraz, two more coming in 2017, along with new equipment supplies.
4. Four workshops/seminars: Moscow, Russia, 2014, supported by the United Nations Economic and Social Commission for Asia and the Pacific; Shymkent, Kazakhstan, 2014, organizational support by IFAS; Tajikistan, 2017; Saint Petersburg, Russia, 2017, shared with Rostekhnadzor.
5. International experts consulting and participating in the workshops (Russia, Uzbekistan, Slovakia, Spain).
6. A national round table on dam safety in Astana, 2014, organizational support by IFAS.
7. Safety reviews of Orto-Tokoi and Kirov dams.
8. Installation and testing of a safety monitoring system on the Orto-Tokoi dam. The funds for improving the safety monitoring system were made available by the Swiss Agency for Development and Cooperation.

9. Safety review of Kyzylordinsky (2015) and Talassky hydraulic units, Ters-Ashchybulaq and Tasotkel reservoirs (2016)
10. Developing draft rules for exploitation for the Kirov dam, developed with support of OSCE and presented to the Chu-Talas Commission for further consultations and finalisation.
11. Three publications in 2015: “Modern methods and technology for the safety of hydrotechnical installations”, “Instructions for development, consultations and approval of rules for exploitation of hydrotechnical installation in Central Asia”, “Guidelines for the preparation of a national programme for safe exploitation of low-pressure hydrotechnical installations for countries in Central Asia”.
12. Development of Regulations on the management of Inventory of hydrotechnical installations, 2017.

Compared to the limited budget of the Project, the above listed outputs represent a solid evidence of reasonable funds utilization and synergetic cooperation between the donors and partners of the Project.

According to the information received from interviewees and respondents to the survey, the value of Project outputs to the participating Central Asia countries is unquestionably high. The results of both desk and stakeholder research suggest that the financial resources allocated to the Project were appropriate to the scale of the Project and used in an efficient manner. Put into words by one of the survey respondents, “Within its funding envelope <...>, it would be impossible to use the available Project resources in a more efficient manner.”

However, survey respondents have reported that the scale of the Project (and of its budget) was not entirely appropriate to the needs for dam safety improvement in Central Asia and that having more resources available would help extend the impact of the Project, e.g. performing a technical review and upgrade on at least one top priority dam in each country to provide all participants with a model to be adopted for the future works within the country. This is attributed to the fact that the needs of the countries possessing over 100 large ageing dams are immense and cannot be entirely covered by a Project of this scale within the selected timeframes.

The results of the desk research, interviews and the survey suggest that, with regard to the Project accomplishments, the human resources were used in an efficient manner. Participation of the Russian experts was highly appreciated by the stakeholders, and the experts from other countries and interstate organizations made a valuable contribution to the Project activities and progress.

The conclusion is that the efficiency of the Project within its funding envelope can be regarded as high.

Impact

Phase three of the Project maintained the international dam safety forum established in the previous phases and deepened the dialogue on cooperation, which contributed to the increased awareness of the countries regarding the issues to be addressed at both regional and national levels.

In spite of the tensions between the upstream and downstream countries of Central Asia, their willingness to continue the dialogue has the potential for further improvements in cooperation, even though it still may require external assistance when it comes to the most disputable matters. The efforts of UNECE and its partners contributed to taking the national discussion of the dam safety related weaknesses and strengths of countries of Central Asia to the next level making the expert opinion more agreeable to the ear of decision makers. This may facilitate the further development of frameworks and facilities required for the future dam safety assurance in the region.

The international training centre in Taraz is an important capacity-building point contributing to the increased potential of the countries to maintain dams at national and local levels: up to now, the training has been rather theory-oriented, with some elements of practice. The regional meetings, workshops and seminars were well attended by public officials and expected to contribute to their understanding of dam safety issues at national as well as regional levels. Some of the interviewees and survey respondents highlighted the improvements in this area in their responses. However, the expected supplies of equipment should allow for more practical training for the further improvement of the capacity of the technical experts.

The improvements of the national dam safety legal and institutional frameworks, made with the contribution of this Project, have the potential to give momentum to the development of national and regional policies backing dam safety management in the region

The work performed on individual dams is expected to contribute to both local safety of the downstream areas and the improved modus operandi of national and local authorities with regard to dam safety review and technical upgrade, in particular with regard to transboundary rivers.

All stages of the Project and the initiative's benefits have been accessible to all beneficiaries, regardless of gender. Mr Bo Libert, the UNECE Project Manager, in his invitations to the Project meetings inspired the participating countries to include in the Project female experts with relevant training. Nevertheless, women were a minority in the Project due to their general under-representation in the dam safety related professions. Women's perspectives as water users and child carers were naturally included in the Project design as any dam safety incident resulting in floods would have a strong impact on the household/family routine.

Sustainability

The work on national legislation and institutional frameworks is likely to be sustained but some countries are more capable than others of taking it forward from this point without external assistance. For instance, in spite of the challenges mentioned above, Kazakhstan intends to continue working on its regulatory framework, draft of the law on dam safety expected to be adopted in 2018, and on promotion of two- and three-party cooperation agreements. Uzbekistan has been using the information received via the Project to update technical staff training programmes, as well as Bachelor's and Master's degree programmes at Tashkent Institute of Irrigation and Melioration.

The experts stated that Uzbekistan was going to continue the implementation of best practices and innovative technologies the overview of which had been received during the course of Project activities, as well as working on the issue of tailing dams.

The safety monitoring system introduced on the Orto-Tokoi dam in Kyrgyzstan is probably the best example of the Project's sustainability. The experts from Kyrgyzstan communicated their intention to take forward the development of regulatory framework and the implementation of new methodological and technological approaches to dam safety in Kyrgyzstan, though the lack of financial resources had limited their ability to perform technical upgrades of dams¹⁷.

Some of the surveyed and interviewed national and international experts argued that, in spite of the observable improvements that this Project had contributed to, the Central Asia countries were still challenged by the upstream-downstream tensions and the uneven development of regulatory systems in the countries sharing basins. One of the interviewees stated: "Regarding transboundary rivers, we are sitting at one table and it is already a big success. However, some countries have not adopted the law yet."

Finally, according to the interviews, in case of international funding withdrawal, the financial sustainability of the international training centre in Taraz could be threatened.

One of the key factors that can support continuation of the Project dialogue and capacity-building is the establishment of a permanent dam safety forum/platform in Central Asia. This option was considered in the conclusions of the Regional Meeting in Almaty in March 2017 which recommended welcoming the initiative of the Executive Board of IFAS in Kazakhstan to establish a regular forum based on the outcomes and the capacity built by the Project.

¹⁷ As reported in interviews and the survey

3. Conclusions and recommendations

The main conclusion of the evaluation is that phase three of the *Capacity-building for cooperation on dam safety in Central Asia* project was very relevant, highly effective and efficient.

The Project has improved national legislation and institutional frameworks in individual countries, enhanced the experts' capacity to take the developments forward. Table 1 sums up the state of achievement on the date of evaluation.

Table 1. Expected accomplishments and indicators of achievement as in the Project document of 21 November 2013 vs state of achievement as of May 2017

Expected accomplishment	Indicator of achievement	State of achievement on the date of evaluation
EA1 Improved interstate cooperation as well as awareness on dam safety and related issues in Central Asia	I1 Platform for inter-state cooperation on dam safety in Central Asia established	Achieved
EA2 Improved national legislation and regulatory frameworks	I2 Improved national legislation and regulatory frameworks in a minimum of two countries	Achieved
EA3 Raised technical and legal capacity of experts and officials on dam safety issues	I3 Raised technical and legal capacity of at least 40 experts and officials on dam safety issues	Achieved
EA4 Improved safety and transboundary cooperation on individual dams	I4 Improved safety and transboundary cooperation on a minimum of two individual dams on transboundary rivers	Achieved*

* Note: by the date of evaluation, technical safety upgrade works as a part of this Project had been performed on one of the two dams. This can be explained by the complexity of technical, financial and cooperation issues involved. In terms of transboundary cooperation, the accomplishment of EA4 can be regarded as fully achieved due to the shared reviews and discussions of the safety of two dams (Orto-Tokoi and Kirov) covered in the Project.

The conclusions and recommendations on each evaluation criterion are the following:

Conclusion on relevance: There is no doubt that since the Project has been consistently addressing critical issues in the region, its relevance is very high.

Recommendation: The upcoming projects related to dam safety in Central Asia, if any, should address cooperation and capacity-building in dam safety in Central Asia, especially the focus on transboundary rivers.

Conclusion on effectiveness: Given the challenging political and social environment in which the Project has operated, and the immense scale of the issues that the Project has been addressing, the effectiveness of the Project can be considered as very high. The Project supported the overall objectives of the UNECE regular programme of work. The Project

activities have also contributed to the improvement of the participating countries' capacity to manage dam safety related risks and thus to reduce the probability of dam failures.

Recommendation: The UNECE should continue addressing concerns of the Central Asia countries on dam safety issues. Some of the countries may wish to avoid changing representatives attending the Project events and work on the developments at a national level. Should this be impossible, it may be reasonable to establish a strong succession of equally qualified representatives up-to-date with the most recent developments of the Project. This may allow faster progressing towards the expected accomplishments.

Conclusion on efficiency: The efficiency of the Project within its funding envelope can be regarded as high. Compared to the limited budget of the Project, the above listed outputs represent solid evidence of efficient funds utilization and synergetic cooperation between the donors and partners of the Project. Human resources were also used in an efficient manner, and there were no delays in the project implementation. All stages of the Project and the initiative's benefits have been accessible to all beneficiaries, regardless of gender.

Recommendation: Since qualified and dedicated staff is one of the key success factors for any project, continue with the people who manage and execute the Project at the UNECE, if possible.

Conclusion on sustainability: Many of the interviewed and surveyed stakeholders expressed concern over a sustainability of some Project results. If the UNECE efforts are completely phased out at the present level of achievement, some results of the Project may not be sustained.

Recommendations: The UNECE should continue its efforts and enhance cooperation with the donors/international development organizations. The governments of Central Asia countries should consider increasing funding for dam safety issues. The Central Asia countries may wish to set up a permanent Dam Safety Working Group to operate at the regular forum that the EC IFAS in Kazakhstan has suggested should be establish. The officially nominated Project focal points could serve as a core of such a Group. This will steer the future sustainability of work.

Conclusion on impact: The estimated impact of the Project includes improvements in various aspects of dam safety management in the Central Asia countries, contributing to a better environmental governance and disaster risk reduction in the region. The developments of the Project provide valuable inputs to the process of formation of political, legal and institutional environment conducive to positive changes.

Recommendations: Continuation of the Project beyond 2017 would be highly desirable. Implementing pilot activities on specific dams demonstrating technical solutions for transboundary safety monitoring on a dam in each country may significantly increase the impact of the Project. The Russian Federation may wish to continue supporting the efforts of UNECE, and fund the fourth phase of the Project. The Central Asia countries will benefit from further support by the experts from the Russian Federation, who have expressed their interest in providing further advice and training on dam safety to the experts and officials from Central Asia. Experience from other countries and regions are also of value in future efforts.

4. Annexes

1. Terms of Reference

Name of Consultant: Konstantin Karabanov

Requesting Office: Environment Division

1. Objectives and targets (Specific functions of Consultant/Individual Contractor)

The Consultant will make evaluation of the 2014-2017 part of the third phase of the Project Capacity-building for cooperation on dam safety in Central Asia.

This will include:

1. Desk study of material found at the UNECE Project website (Project description, meeting reports, publications etc.) and other information provided by the Project Manager
2. Interviews via Skype/telephone
3. Analysis of a survey of Project participants and other stakeholders. The survey will be developed by the consultant.

The following issues/questions will provide the basis for the evaluation.

Relevance

13. How relevant was the Project for the needs and priorities of countries in Central Asia?
14. How relevant was the design of the third phase of the Project, in line with the achievements and outcomes of earlier phases of the initiative?
15. How relevant was the Project with respect to the overall objectives of the UNECE regular programme of work?

Effectiveness

1. To what extent were the expected accomplishments of the Project achieved?
2. What were the challenges/obstacles to achieving the Project objective and expected accomplishments?
3. Give advice (if any) on how the expected accomplishments of the Project could have been more effectively achieved?
4. To what extent did implementation of the Project support the overall objectives of the UNECE regular programme of work? What were the tangible measures that can be attributed to supporting or enhancing the regular programme?

Efficiency

1. Were the available resources appropriate to the scale of the Project and the needs identified by member States in Central Asia on dam safety?
2. Were the human and financial resources allocated to the Project used efficiently and commensurate with the Project results?

Impact

1. To what extent has this Project impacted on the challenge of dam safety, in particular with regard to transboundary rivers, in Central Asia?

The evaluation will assess how gender considerations were included the Project's design, execution and results. It will make recommendations on how gender can be included in the design of future Projects in UNECE.

Ultimate results of services

The consultant will write a report of maximum 15 pages (plus possible annexes such as the results of the survey) with a 2-page self-standing executive summary of the evaluation results.

2. Lists of reviewed documents

I. Documents and publications of the third phase:

- Capacity-building for cooperation on dam safety in Central Asia, phase 3. Project document/proposal. Version 21/11/2013
- Capacity-building for cooperation on dam safety in Central Asia, phase 3 / E240. Annual implementation report (2015)
- Capacity-building for cooperation on dam safety in Central Asia, phase 3 / E240. Annual implementation report (2016)
- Efficient use of energy and water resources: participation of Russian specialists in the UNECE dam safety project in Central Asia (2011-2013, E166). Terminal report (not dated)
- Evaluation of the Project “Capacity-building for cooperation on dam safety in Central Asia”, Phase 3 (2014-2017, E240, Russian Funding). Terms of Reference (not dated)
- Guidelines for the preparation of a national programme for safe exploitation of low-pressure hydrotechnical installations for countries in Central Asia (2015a). [United Nations Economic Commission for Europe, International Fund for Saving the Aral Sea]
- Instructions for development, consultations and approval of rules for exploitation of hydrotechnical installation in Central Asia (2015b). [United Nations Economic Commission for Europe, International Fund for Saving the Aral Sea]
- Modern methods and technology for the safety of hydrotechnical installations (2015). [United Nations Economic Commission for Europe, Gosvodhoznadzor, Uzbekistan National Committee on Larger Dams]
- National Roundtable on Dam Safety, Astana, Kazakhstan, 17/09/014
- Presentations by the participants of the Seminar on Ensuring the Safety of Small Hydrotechnical Installations in Moscow, Russian Federation, made on 30/06-02/07/2014
- Publication on dam safety: Regulatory Frameworks for Dam Safety (2002/2003). [World Bank]
- Report of the Training Workshop on Establishment of an International Training Center for the Safety of Hydraulic Structures in the City of Taraz, Taraz, Kazakhstan 11/02-15/02/2013 (2013). [United Nations Economic Commission for Europe, Executive Board of the International Fund for Saving the Aral Sea in Kazakhstan, Kazakh National Science and Research Institute of Water Economy]

- Report on the First Training Seminar on Safety of Hydraulic Structures, Taraz, Kazakhstan, 14/04 -18/04/2014
- Report on the Orto-Tokoi safety monitoring, Moscow, 2015
- Report on the Second Seminar on Safety of Hydraulic Structures, Taraz, Kazakhstan, 26/05 – 30/05/2014
- The Regulation on the Cadaster of Hydraulic Technical Installations (HTI)
- The Seminar on Ensuring the Safety of Small Hydrotechnical Installations (HTI) in the countries of Central Asia, Moscow, Russian Federation, 30/06-02/07/2014
- Training on Dam Safety, Report, Shymkent, Kazakhstan, 19/11-21/11/2014

Regional meeting documents of the third phase:

- Regional Meeting on Dam Safety Cooperation in Central Asia, Almaty, Kazakhstan, 19/11-20/11/2013
 - Cooperation to ensure the safety of hydraulic structures on the Chu and Talas rivers between Kazakhstan and Kyrgyzstan. [Mr. Iskender Dzholdoshaliev, Mr. Oleg Makarov, Kyrgyzstan, Mr. Vladimir Sherbina]
 - Dam Safety management in Azerbaijan. [Mr. Sahib Hasanzade, Mr. Arif Akhundov]
 - Dam safety management in Spain. [Mr. Jurg n Fleitz, Oficiiana T cnica de Estudios y Control de Obras S.A.]
 - Development of a methodological guide for the safety of hydraulic structures. [Mr. Shukhrat Talipov, Uzbekistan, Mr. Alexander Yurchenko, Consultant]
 - On the establishment of a training center for dam safety and planning of its activities. [Mr. Medet Ospanov, Mr. Tursun Ibraev, Kazakhstan]
 - Overview of activities related to Dam Safety in Central Asia. [Mr. Medet Ospanov, Kazakhstan]
 - Overview of the progress in development of the Draft Regional Cooperation Agreement on Dam Safety in Central Asia. [Mr. Yuri Steklov, Consultant]
 - Proposals of Slovakia on cooperation with the countries of Central Asia in the field of dam safety. [Mr. Boris Minarik, Expert]
 - Report of the Regional Meeting on Dam Safety Cooperation in Central Asia, Almaty, Kazakhstan, 19/11-20/11/2013
 - Summary of activities which followed the second phase of the "Dam Safety in Central Asia: Capacity-Building and Regional Cooperation" Project. [Mr. Bo Libert, UNECE Regional Adviser]

- Support for cooperation on dam safety in the region under the ASBP-3. [Mr. Shukhrat Talipov, representative of EC IFAS]
- Regional Meeting on Dam Safety Cooperation in Central Asia, Bishkek, Kyrgyzstan, 11/11-12/11/2014
 - Dam Safety in Central Asia: Capacity-Building and Regional Cooperation. [Mr. Bo Libert, Regional Adviser, UNECE]
 - Examination of control and measuring equipment of the Kirov dam. [Mr. Vladimir Sherbina, Consultant / Director, Facility Safety Diagnostic Center JSC “Rusgidro”, Russia]
 - Experience of intersectoral working group in Kazakhstan. [Ms. Latifa Bulekbaeva, Representative of World Bank project]
 - Informational and diagnostic system of the Orto-Tokoi reservoir for controlling the parameters of dam safety. [Mr. Oleg Makarov, Director, Research institute "Vodoavtomatika i metrologia", Kyrgyzstan]
 - Report of the Regional Meeting on Dam Safety Cooperation in Central Asia, Bishkek, Kyrgyzstan, 11/11-12/11/2014
 - State regulation of safety low pressure (small) hydraulic structures in the Russian Federation. [Ms. Inna Kaliberda, Consultant / Deputy director, Scientific - Technical Center “Energobezopasnost”, Russia]
 - The problems of the dam safety management on strategic objects in Azerbaijan. [Mr. Sahib Hasanzade, Head of the Sector of hydraulic structures, State Agency for Water Resources in Emergencies, Azerbaijan]
 - UNECE regional project "Dam safety in Central Asia: Capacity-Building and Regional Cooperation" in Kazakhstan. [Mr. Medet Ospanov, Director, Executive Board of IFAS, Kazakhstan]
- Regional Meeting on Cooperation on Dam Safety in Central Asia, Almaty, Kazakhstan, 03/12-04/12/2015
 - Criteria of safety of low pressure of hydrotechnical installations on the example of the Uch-Kurgansky water-engineering system. [Dr. Masharif Bakiyev, Head of the Department of Hydraulic Engineering Constructions and Engineering Designs of Tashkent Institute of Irrigation and Melioration, PhD, Professor, Uzbekistan]
 - Dam safety management in Azerbaijan, Mr. Sahib Hasanzade. [Head of the Sector of Hydraulic Structures of the State Agency on Water Resources near the Ministry of Emergency]
 - Establishment of a system for automated monitoring of the safety of the Orto-Tokoi dam on the transboundary Chu river. [Mr. Oleg Makarov, Director, Research institute “Vodoavtomatika i metrologia”, Kyrgyzstan]

- Establishment of a system for automated monitoring of the safety of the Orto-Tokoi dam on the transboundary Chu river. [Mr. Vladimir Sherbina, Consultant, Director of Facilities Safety Diagnostic Center “Rushydro JSC, Russia]
- Guidelines for the preparation of a national programme for safe exploitation of low-pressure hydrotechnical installations for countries in Central Asia. [Ms. Inna Kalberda, Consultant, Russia, Mr. Shukhrat Talipov, Consultant, Uzbekistan]
- Information on implementation of the project “Dam Safety in Central Asia: Capacity-Building and Regional Cooperation”. [Mr. Bo Libert, Regional Adviser, UNECE]
- Instrumental research of a condition of hydrotechnical installations. [Mr. Iskander Mirkhashimov, Deputy Executive Director of KAAE, Kazakhstan]
- Legal framework for dam safety (Review of the World Bank). [Mr. Igor Petrakov, Consultant]
- Modern methods and technologies to ensure of safety of hydrotechnical installations. [Mr. Zafar Irisboyev, Chief specialist of the Gosvodhoznadzor, Secretary of Uzbekistan National Committee on Larger Dams]
- On activities of the training center for safety of hydrotechnical installations in Taraz. [Mr. Tursun Ibraev, Director of the International training centre for the safety of hydrotechnical constructions, Kazakhstan]
- Recent developments in the legislation on safety of hydrotechnical installations in the Russian Federation. [Mr. Vladimir Pimenov, Head of the Division for Supervision of Hydropower Plants and Hydraulic Engineering Structures at Rostekhnadzor, Russia]
- Report of the Regional Meeting on Cooperation on Dam Safety in Central Asia, Almaty, Kazakhstan, 03/12-04/12/2015
- Safety assessment of the Kyzylorda hydrosystem, located on the Syr Darya River. [Mr. Medet Ospanov, Director of the Executive Board of International Fund for Saving the Aral Sea (EB-IFAS) in Kazakhstan]
- Regional Meeting on Cooperation on Dam Safety in Central Asia, Almaty, Kazakhstan, 01/03-02/03/2017
 - Draft Report of the Regional Meeting on Cooperation on Dam Safety in Central Asia, Almaty, Kazakhstan, 01/03-02/03/2017

II. Documents and publications of the previous phases:

- Dam safety in Central Asia: Capacity-building for regional cooperation (phase II: 2007-2009). Project proposal. Version 24/07/2007
- Dam safety in Central Asia: Capacity-building for regional cooperation (phase II: 2007 - 2011) Final project report. Version 31/05/2012

- Dam Safety in Central Asia: Capacity-Building and Regional Cooperation. Water Series № 5. [United Nations Economic Commission for Europe (2007). New York and Geneva: UNECE]
- Draft model national law “On the safety of hydrotechnical installations” (not dated). Represented at the Second Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia. Almaty, Kazakhstan, 10/04 –11/04/2006
- Draft regional agreement on cooperation in emergency situations involving hydrotechnical installations (no date). Represented at the Second Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia. Almaty, Kazakhstan, 10/04 – 11/04/2006
- Model national law “On the safety of hydrotechnical installations” (translation of the Russian version dated 22 November 2006). Represented at the Third Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia. Almaty, Kazakhstan, 15/11-16/11/2006
- Model regional agreement on cooperation in emergency situations involving hydrotechnical installations (2006). Represented at the Third Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia. Almaty, Kazakhstan, 15/11-16/11/2006
- Report of the Second Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia, Almaty, Kazakhstan, 10/04-11/04/2006
- Report of the Third Expert Group Meeting on the Promotion of Dam Safety Cooperation in Central Asia, Almaty, Kazakhstan, 15/11-16/11/2006

III. Other documents:

- Strengthening cooperation for rational and efficient use of water and energy resources in Central Asia. Special Programme for the Economies of Central Asia (SPECA) (2004). [United Nations Economic Commission for Europe, United Nations Economic and Social Commission for Asia and the Pacific. New York: UNECE, UNESCAP]
- Support Guide for Conducting Evaluation (2014). [United Nations Economic Commission for Europe]
- UNEG Handbook for Conducting Evaluations of Normative Work in the UN System (2013). [United Nations Evaluation Group]

3. Survey questionnaire

EVALUATION: RATING, COMMENTS AND RECOMMENDATIONS

**International workshop on hydraulic engineering facility safety for participants
from Central Asia countries
April 25-28, 2017
St. Petersburg, Russia**

Dear participants,

The third phase of the UNECE «Capacity-building for cooperation on dam safety in Central Asia» project is over, and we would be very grateful if you could contribute to the project evaluation.

Please rate the following on a scale of 1 – 5 (from 1 – “poor” to 5 – “excellent”), or select YES/NO. Further comments and recommendations are very welcome.

Which country do you represent? _____

1. Please rate the relevance of the project for the dam safety related needs and priorities of your country.

Your comments and recommendations _____

2. Have you been directly involved in phase 1 (2006-2007) and phase 2 (2007-2011) of the project?

YES / NO (please circle)

3. If yes, please rate the relevance of phase 3, in particular with regard to the achievements and outcomes of earlier phases (phase 1 and phase 2)

Your comments and recommendations _____

4. To what extent were the expected accomplishments of the project achieved? Please rate the following from 1 (not all achieved) to 5 (fully achieved).

- | | |
|---|--------------------------|
| 1) Improved inter-state cooperation and awareness on dam safety | <input type="checkbox"/> |
| 2) Improved national legislation and regulatory frameworks | <input type="checkbox"/> |
| 3) Raised technical and legal capacity of experts and officials | <input type="checkbox"/> |
| 4) Improved safety and transboundary cooperation on individual dams | <input type="checkbox"/> |

5. Did you observe any challenges or obstacles to the successful implementation of the project?

YES / NO

6. If yes, what were these challenges/obstacles?

Your comments and recommendations _____

7. Were the resources (staff resources, other financial contributions) appropriate to the scale of the project? YES / NO

8. Were the resources (staff resources, other financial contributions) appropriate to the needs identified by member States in Central Asia on dam safety? YES / NO

Your comments and recommendations _____

9. In your opinion, were the human and financial resources used in an efficient manner, with regard to the project accomplishments? YES / NO

10. What specifically could have been improved to achieve the results more efficiently (with fewer resources, less time/effort invested)?

Your comments and recommendations _____

11. Have you observed changes or new developments with respect to dam safety as a result of this project? YES / NO

12. If yes, what changes have you observed? Please elaborate on the changes you have observed, in particular with regard to transboundary rivers.

Your comments and recommendations _____

13. In your opinion, what would the situation on dam safety in Central Asia be without this project? Please select an option:

- a) The situation would be worse
- b) The situation would be the same (no change)
- c) The situation would be better

Your comments and recommendations _____

14. To your knowledge, have all stages of the project and the initiative's benefits been accessible to all beneficiaries, regardless of gender? YES / NO

Your comments and recommendations _____

15. The project aimed to develop institutions and legislation and build the capacity of Central Asia countries on dam safety, and promote sub-regional cooperation. In your opinion, will the results of this project be sustained after UNECE efforts are completed? YES / NO

16. If yes, what results are you expecting to be sustained after UNECE efforts are completed?

Your comments and recommendations _____

Is there anything else you would like to tell us?

May we contact you for further discussion? Thank you for sharing your details below.

THANK YOU!

PLEASE RETURN THIS QUESTIONNAIRE TO THE WORKSHOP MANAGER!

4. List of interviewees and surveyed participants

I. Interviewed by telephone/Skype/face-to-face

1. Dr. Masharif Bakiyev, Professor of the Department of Hydraulic engineering constructions and engineering designs of Tashkent Institute of Irrigation and Melioration, PhD, Uzbekistan
2. Mr. Bolat Bekniyaz, Director, Executive Board of IFAS in Kazakhstan
3. Mr. Arslan Berdiyev, Leading Expert on Water Management issues, "Ynanch-Vepa" - analytical agency, Turkmenistan
4. Ms. Alma Chengelbayeva, Chief Specialist of Water Resources Department of the Executive Board of IFAS in Kazakhstan
5. Mr. Iskender Dzholdoshaliyev, Head of division of technical policy and investments, Water Management Department, Kyrgyzstan
6. Mr. Valrii Gutnik, Head of division, Water Management Department, Kyrgyzstan
7. Mr. Tursun Ibrayev, Director of the International training centre for the safety of hydrotechnical constructions, Kazakhstan
8. Mr. Zafar Irisboev, Chief specialist of the Gosvodhoznadzor, Secretary of Uzbekistan National committee on larger dams, Uzbekistan
9. Mr. Rati Japaridze, Head of the department on economy and ecology, OSCE Programme Office in Astana, Kazakhstan
10. Ms. Inna Kaliberda, Consultant, Deputy director on scientific works of "Enrgobezopasnost" Scientific - Technical Center, Russia
11. Mr. Bo Libert, Regional Adviser on Environment, Environment Division, United Nations Economic Commission for Europe
12. Mr. Oleg Makarov, Director, Research institute "Vodoavtomatika i metrologia", Kyrgyzstan
13. Mr. Rustamzhon Nabiev, Senior Specialist of Department on Supervision of Hydro-technical Facilities, State Supervision Services on Safety Operation of Hydro-technical Facilities, Ministry of Energy and Water Resources, Tadjikistan
14. Mr. Marat Narbayev, Head of Water Resources Department, Executive Board of IFAS in Kazakhstan

15. Ms. Bakhriniso Narzullaeva, Program Assistant for Energy Security and Water Management, Economic and Environmental Department, OSCE office, Tajikistan
16. Mr. Erkin Orolbaev, Consultant, Kyrgyzstan
17. Mr. Vladimir Pimenov, Head of Division of Hydropower Plants and Hydraulic Structures Supervision (Department of State Energy Supervision), Rostechnadzor, Russia
18. Mr. Tulegen Sarsembekov, National expert, Kazakhstan
19. Mr. Vladimir Scherbina, Director of Diagnostic Center for the Safety of Facilities “Rushydro JSC”, Russia
20. Ms. Irina Sokolova, Head of International Relations Department, Rostechnadzor, Russia
21. Mr. Shukhrat Talipov, Deputy Head, GEF IFAS Agency, Uzbekistan

II. Survey respondents

1. Mr. Arslan Berdiyev, Leading Expert on Water Management issues, "Ynanch-Vepa" - analytical agency, Turkmenistan
2. Mr. Dzhamshed Bobozoda, Chief Expert of Infrastructure Development Department, Executive Office of the President of the Republic of Tajikistan, Tajikistan
3. Mr. Iskender Dzholdoshaliyev, Head of division of technical policy and investments, Water Management Department, Kyrgyzstan
4. Ms. Elena Filippova, Head of “Information and analytics centre for hydraulic engineering structures safety” Department of Vedeneev VNIIG
5. Mr. Muhiddin Gulov, Senior Specialist of State Supervision Services on Safe Operation in Industry and Mining under the Government of the Republic of Tajikistan, Tajikistan
6. Mr. Valrii Gutnik, Head of division, Water Management Department, Kyrgyzstan
7. Mr. Zafar Irisboev, Chief specialist of the Gosvodhoznadzor, Secretary of Uzbekistan National committee on larger dams, Uzbekistan
8. Mr. Rati Japaridze, Head of the Department on economy and ecology, OSCE Programme Office in Astana, Kazakhstan

9. Ms. Inna Kaliberda, Consultant, Deputy director on scientific works of “Enrgobezopasnost” Scientific - Technical Center, Russia
10. Mr. Yury Kozhanov, Head of Department for cooperation on technological safety monitoring and control, Department for International Cooperation and Protocol, Rostekhnadzor
11. Mr. Oleg Makarov, Director, Research institute “Vodoavtomatika i metrologia”, Kyrgyzstan
12. Mr. Zhihanshy Makysh, Head of department of state control in the sphere of use and conservation of water resources of the Water Resources Committee of the Ministry of Agriculture
13. Mr. Ibadulla Mirzaev, Deputy Director of “Kazvodhoz” department in Karaganda, Ministry of Agriculture, Kazakhstan
14. Mr. Rustamzhon Nabiev, Senior Specialist of Department on Supervision of Hydro-technical Facilities, State Supervision Services on Safety Operation of Hydro-technical Facilities, Ministry of Energy and Water Resources, Tadjikistan
15. Mr. Marat Narbayev, Head of Water Resources Department, Executive Board of IFAS in Kazakhstan
16. Mr. Orazmurat Orazmuradov, Head specialist of the Department of Investments, Projects and new technologies of the Ministry of Agriculture and Water Economy, Turkmenistan
17. Mr. Erkin Orolbaev, Consultant, Kyrgyzstan
18. Mr. Seyitguly Ovlyagulyyev, Head of mechanics and water pipes department of the Ministry of Agriculture and Water Economy, Turkmenistan
19. Mr. Vladimir Pimenov, Head of Division of Hydropower Plants and Hydraulic Structures Supervision (Department of State Energy Supervision), Rostekhnadzor, Russia
20. Mr. Murze Purliyev, Head of Department of the state institute "turkmensuwlymtaslama" of the Ministry of Agriculture and Water Economy, Turkmenistan
21. Mr. Amrikhon Raimov, Deputy Director (Generation) of Joint Stock Company "Pamir Energy", Tajikistan
22. Mr. Bakhodir Ruziboev, Director of design institute JSC “UzGip”, Uzbekistan

23. Mr. Said Sharipov, CAREC Consultant, RECCA

24. Ms. Irina Sokolova, Head of International Relations Department, Rostekhnadzor,
Russia

25. Mr. Shukhrat Talipov, Deputy Head, GEF IFAS Agency, Uzbekistan