

# EXTERNAL EVALUATION OF THE UNECE PROJECT "CAPACITY BUILDING FOR COOPERATION ON DAM SAFETY IN CENTRAL ASIA (PHASE 3)"

*United Nations Economic Commission for Europe*

**The evaluation has been commissioned by the UNECE Environment Division**

Draft Evaluation Report



Charvak hydroelectric power plant on the CHIRCHIK river, Uzbekistan  
(Dam height-168 m; volume of water-2006 million.m<sup>3</sup>)

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### ACRONYMS

AFD	French Development Agency
DAC	Development Assistance Committee
EU	European Union
GIZ	German International Cooperation Agency
IFAS	International Fund for Aral Sea
IWAC	International Water Assessment Centre
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Cooperation in Europe
PMU	Program Management Unit
PRODOC	Project Document
SDGs	Sustainable Development Goals
SPECA	Special Program for the Economies of Central Asia
SDC	Swiss Development Cooperation Agency
TOC	Theory of Change
TOR	Terms of Reference
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
VVB	Slovak Hydraulic Construction Organization

## II. Executive summary

Between the dates of the 10<sup>th</sup> April and 2021 and the 9<sup>th</sup> July 2021 a comprehensive evaluation of the UNECE project “Capacity building for cooperation on dam safety in Central Asia (phase 3)” was conducted by an independent evaluator. The evaluation report presents the process and methodology applied to identify the findings, conclusions and recommendations of an independent evaluation of the project “Capacity building for cooperation on dam safety in Central Asia (phase 3)” (hereinafter project). Project was designed and implemented by the United Nations Economic Commission for Europe (UNECE) based in Geneva. The report describes the results of four years of efforts to enhance dam safety in Central Asia by enhancing pertinent capacity building for cooperation during this period.

The evaluation reviewed the project design, activities, outcomes and the overall impact achieved during the entire period of the project duration. The project was originally designed for 3 years, from September 2017 to June 2020. In 2020 the UNECE requested the extension of the project duration till December 2020 and later on till June 2021. Both extension were approved by the donor – the Government of the Russian Federation. This report was commissioned by UNECE to identify findings and conclusions, as well as to provide recommendations. It is expected that the recommendations should inform management decisions regarding future UNECE efforts in capacity building focusing on enhanced dam safety in Central Asia at both, national and regional levels. The conclusions/recommendations contained in this report demonstrate the need for some shifts in how the cooperation on dam safety in Central Asia should be shaped in the future. It is hoped this final evaluation will not only stimulate debate but also inspire appropriate change.

This report aims to:

1. Inform about an independent assessment of the relevance, coherence, effectiveness, efficiency and sustainability of the project “Capacity building for cooperation on dam safety in Central Asia” implemented by the UNECE Environment Division.
2. Assess the quality and extent to which the planned activities have been implemented and the expected outcomes of the project have been achieved.
3. Identify the causes and factors of success and failure in terms of accomplished results in strengthening national and regional capacities of Central Asia countries for development and implementation of the institutional, regulatory and technical frameworks, as well as for improvement of inter-state cooperation on dam safety.
4. Propose a list of findings and make conclusions accompanied by recommendations with emphasis on a learning and forward looking approach for possible improvements of the UNECE activities in supporting capacity building for cooperation on dam safety in Central Asia.

**Overall evaluation:** The relevance of the project development objective and coherence in cooperation with international partners were high. The relationships built up between the UNECE Project staff and the national institutions of the beneficiary countries were credible and sustainable. However, the relationships between the authorities the five countries of Central Asia mandated with the responsibility for dam safety experienced both, high and low levels. A slow progress in terms of the development and implementation of new legal, regulatory and technical frameworks on dam safety was noted at country-specific scales. Negotiations regarding the regional cooperation agreement on dam safety did not bring up a tangible result, while progress was noted in the bilateral cooperation between some countries. Nevertheless, the overall impression of the evaluation was that the recipient countries were happy with the contributions made by the project as a unique regional initiative that address the challenges of dam safety in Central Asia systematically.

Analysis of the findings and conclusions exposed some challenges and issues that need the attention of UNECE in order to consolidate the gains registered so far and to achieve sustainable results in the long-term. Priority areas for the future UNECE attention are debated in the recommendations.

### KEY FINDINGS:

The findings identified during the evaluation process are described in detail in the chapter VI. The key findings can be summarized as follows:

1. The UNECE project “Capacity building for cooperation on dam safety in Central Asia (phase 3)” was highly appreciated by its recipient countries since its activities and outcomes addressed the persisting concerns/needs related to dam safety in this region in a highly relevant manner.
2. The project did not address the gender equality issues linked to dam safety sufficiently. Similarly, the linkages between the dam safety and the most vulnerable groups special needs were not considered evidently.
3. The implementation of the project’s activities in the required sequence was generally coherent. The shortcoming was late recruitment of international expert to support drafting of national legislation and organization of two seminars to discuss draft legislation on dam safety and cancelation of the development and show casing of the dam technical solutions for transboundary safety monitoring.
4. The UNECE project management was highly diligent in seeking out budgetary discipline and cost efficiencies. These efforts resulted in a wise and adequate allocation of resources and facilitated the implementation of the project activities within the anticipated budget.
5. The COVID-19 pandemic was the main factor that resulted in the delays in the implementation of several activities, as well as in modifications of several meetings from the face-to-face mood to a virtual one.
6. The interviews held with the recipient countries representatives and international partners demonstrated a positive influence of the project vis-à-vis the practices of beneficiary countries in the field of dam safety, as well as a promising perspectives to sustain the project activities beyond its life span.

## **KEY CONCLUSIONS:**

The evaluation resulted in the following key conclusions:

1. The UNECE project “Capacity building for cooperation on dam safety in Central Asia (phase 3)” was successful and impacted positively on the ongoing activities of the five countries of Central Asia in the governance addressing dam safety and bilateral cooperation. UNECE has been rated as a solid and reliable partner by implementing and development partners.
2. The need to improve the safe operation of hydraulic and hydro-electric structures and to establish constructive and comprehensive cooperation in the safe operation of these structures with a focus on transboundary rivers in Central Asia persists.
3. The project’s emphasis on capacity building in supporting national institutions to train staff, and make use of new methods, technologies, legal and normative approaches was highly relevant and implemented coherently.
4. Contributions of the project capacity building activities for achieving its planned outcomes/overall objective was not systematically measured during the capacity building workshops/seminars/study tours. The capacity building events’ relevance, pertinence and coherence as well as their overall impact were not formally evaluated and documented.
5. The evaluation of the project rated 3 evaluation areas, relevance, efficiency and sustainability, at a highly satisfactory rating, and 2 evaluation areas, effectiveness and coherence, at a partially satisfactory rating. The ratings at little satisfactory level, or not satisfactory level, were not considered as appropriate neither by the interviewed stakeholders, nor by the evaluator

## **KEY RECOMMENDATIONS:**

The evaluation resulted in the following key recommendations:

1. UNECE to continue supporting national and regional capacities on hydraulic and hydro-electric structures and cooperation on dam safety, in close cooperation with relevant global and regional organizations, and donors.
2. UNECE Secretariat to present the findings of this review to the Committee on Environmental Policy to continue promoting dam safety awareness across all government agencies and among general public.
3. During the future similar project designs UNECE should include explicit provisions to address gender equality, vulnerable people and disabled in project activities, outcomes, as well as reporting. One of the directions could be to make a study/assessment of how gender roles, as well as situation of

vulnerable/disabled people could be influenced by displacement and environmental migration as a consequence of a major dam accident. National crisis management agencies should be actively integrated in these efforts.

4. To address some of the project design related shortcomings, encountered during the evaluation, UNECE should consider the following in the future project design:
  - Develop a comprehensive overall project design concept that links inputs, activities, outputs and results/outcomes with the overall objective(s) and aspirations that set the scene for project activities
  - Include appropriate monitoring & evaluation provisions, including baseline information, realistic indicators of success and targets that support both clear reporting and project management.
5. In the future projects UNECE should systematically assess, monitor and document the usefulness and expected impact of the capacity development workshops by canvassing feedback from the participants through a well-tailored questionnaires, quiz approach application and internet based tools as e.g. Survey Monkey. These assessments should include a space for qualitative comments and improvement proposals by participants.
6. For the purposes of sustainability in development of legal, regulatory and technical frameworks on dam safety in Central Asia, UNECE should maintain frequent engagement with Governments and other partners through, but not limited to advisory missions.

### III. Introduction

#### • Project's Background

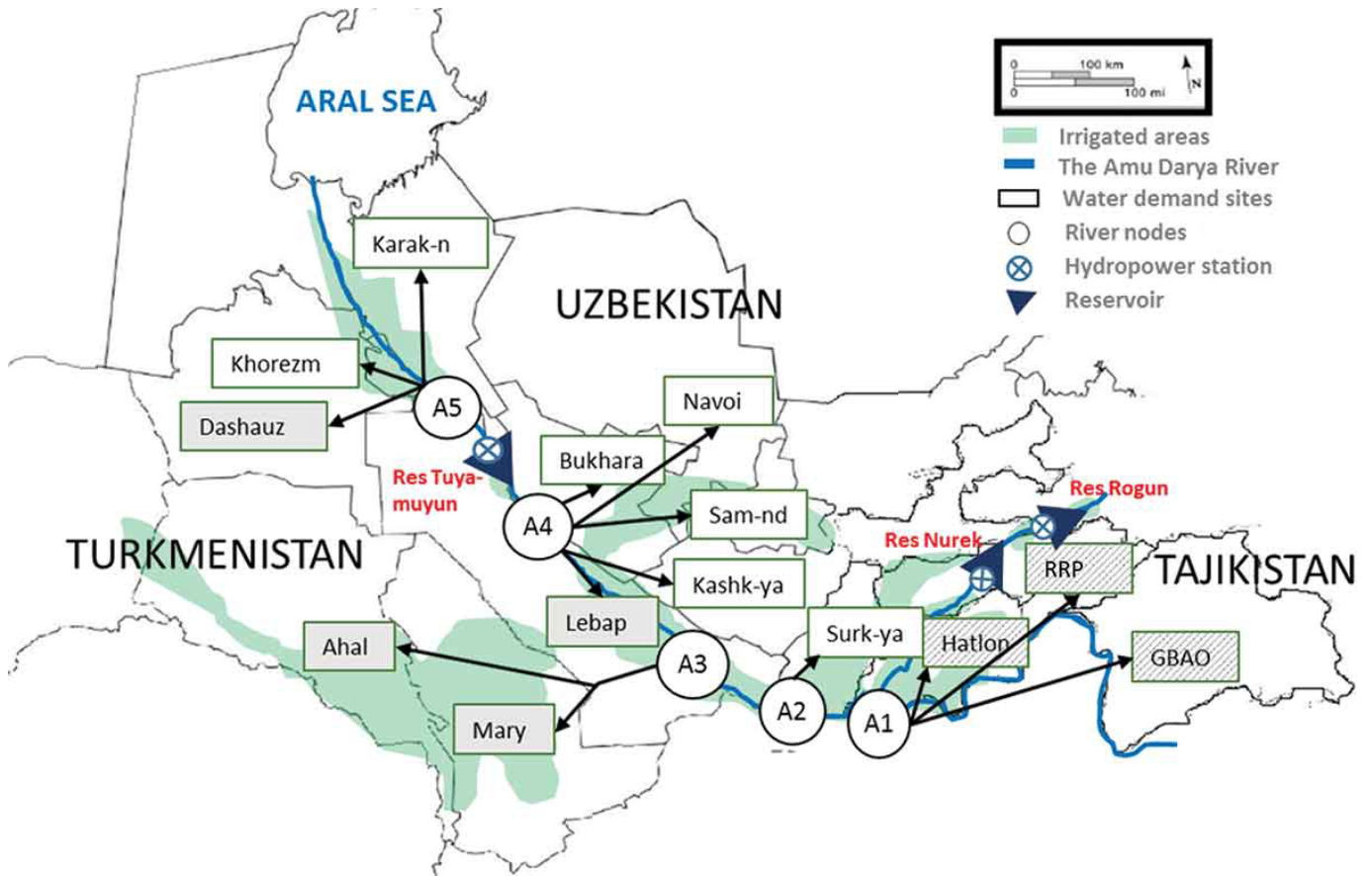
The hydraulic and hydro-electric dam planning, construction, maintenance and safety management is notoriously difficult. If there are safety related problems the negative impacts are often threatening the lives and livelihoods of population living in the dams' vicinity and beyond. Dam safety problem impacts most vulnerable groups within society, while the benefits of dams are typically spread in a much more diffuse pattern. These challenges have generated decades of debate around dam safety, yet it is not always clear how dam planning and management can be significantly improved. Anyway, it is important protecting the well-being of all people that could be negatively affected, adopting a holistic and scientific vision towards dam safety decision-making. In the same context, it's a must paying attention on invisible and overlooked aspects of dam safety decision-making. A special attention has to be paid to defending the rights of the most vulnerable groups (e.g. disabled persons) and advocating for gender equality.

In Central Asia, concern over the safety of more than 100 large dams as well as thousands of small hydraulic structures has grown significantly in recent years. Many of these dams do not have owners. Ageing dams, their inadequate maintenance (lack of sufficient funds), limited number of sufficiently trained personnel, coupled with population growth in flood plains downstream from the dams, have resulted in increased risks to life, human health, property and the environment. Failure of a dam could have disastrous consequences in downstream regions and countries.<sup>1</sup> Since 2006 Central Asia countries intensified their efforts to address the dam safety challenges. The respective national authorities started to explore the appropriate approach to develop/improve appropriate institutional and legal frameworks for dam safety. The UNECE and partners, including the Eurasian Development Bank implemented since 2006 one project preparatory phase and two substantive phases prior to the third phase of the project which achievements are assessed by this report. As early as in 2007 (after concluding the 1<sup>st</sup> phase) the project activities resulted in drafting a "Model National Law on Safety of Hydraulic Structures", "Draft Regional Agreement on Cooperation in the Field of Safety of Hydraulic Structures between the Governments of Central Asia" as well as "Draft Multilateral and Bilateral Agreement Related to Cooperation in Case of Emergency Situations at Dams in the Central Asia Countries".

Many large dams are located on cross-border rivers and dam safety failures may pose threat to several neighbours. Some rivers flow through several countries as demonstrated in Figure 1 showing AMU DARYA river flow.

<sup>1</sup> <https://unece.org/environment-policy/water/areas-work-convention/projects-central-asia/capacity-building-cooperation-dam-safety-central-asia>

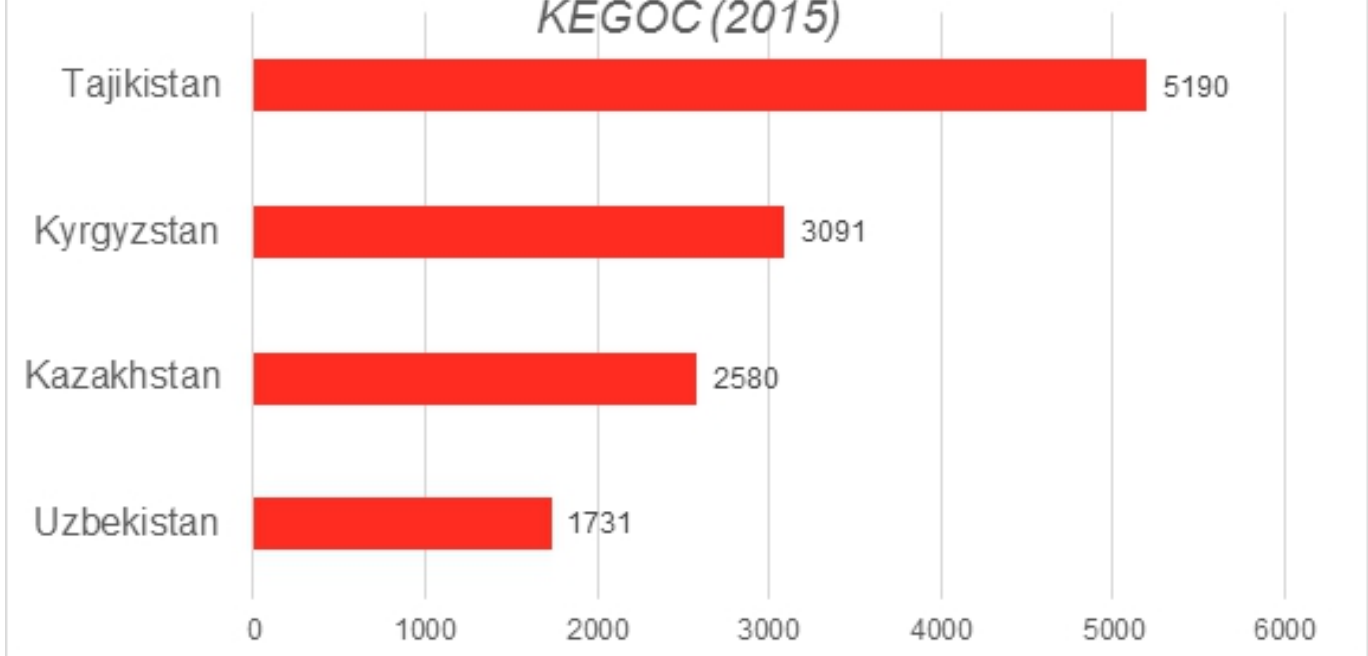
**Figure 1: Amu Darya river basin schemes with 3 major dams**



The hydraulic dams and their water reservoirs in Central Asia are of great economic and environmental security importance for the countries situated in this region. They represent an efficient means protecting against droughts, floods and landslides, generate hydropower, stabilize water supply and contribute to seasonal and sustainable regulation of river flow in the interests of agricultural irrigation. The importance of dams for hydro-energy production in four out of five Central Asia countries is shown in figure 2.

**Figure 2:**

**Fig.2. Leaders in HEP capacity in Central Asia - Tajikistan and Kyrgyzstan**  
 Aggregate installed capacity of HEPs in Central Asian countries, in megawatts MW  
 Source: *International Hydropower Association (2015), KEGOC (2015)*



On the other side, dams can represent a significant potential safety risk, because a dam failure often results in major economic and environmental damages, human injuries and loss of lives. Dam safety is a regional priority in Central Asia and therefore it is situated high on the agenda of the international cooperation with the countries of the region since most dams in this region were built more than 60 years ago, as well as due to limited resources for their maintenance and renovation. Moreover the existing legal and normative frameworks for the safe operation and risk management of hydraulic dams are not sufficiently developed in this region. A renewed sense of urgency of strengthening international and regional cooperation on dam safety was triggered by a serious accident on the KZYL-AGASH dam in Kazakhstan (2010) with some forty-five fatalities and major economic, social and environmental disruption. UNTV produced a short movie on YOUTUBE in 2011 about this accident: "Dam safety in Kazakhstan and Kyrgyzstan" in [English and Russian](#). Even more recently, in May 2020 nearly 100,000 people have been displaced in Uzbekistan and Kazakhstan after an Uzbek dam burst, flooding thousands of homes and destroying agricultural fields. The wall of the dam reservoir SARDOBA in eastern Uzbekistan burst triggering a government operation that saw 100,000 people evacuated.<sup>2</sup>

Dam safety has long been the area for UNECE activities. In March 1989, at their session, Senior Advisers to UNECE governments on Environmental and Water Problems have endorsed Recommendations to UNECE Governments on Dam Safety with Particular Emphasis on Small Dams ([Eng, Fre, Rus](#)). The Recommendations focused on measures to be taken at legislative, policy, financial and operational levels to increase the safety of dams, including small dams. UNECE, in particular through its Convention on the Protection and Use of Transboundary Watercourses and International Lakes, is engaged in promoting cooperation on the management of shared water resources in Central Asia – a pre-condition for sustainable development in the subregion. One direction of activities is promoting the safe operation of several hundred dams situated in the region, most of which are constructed on transboundary rivers.

<sup>2</sup> [https://www.youtube.com/watch?v=wX1JG7ckEkY&t=8s&ab\\_channel=RadioFreeEurope%2FRadioLiberty](https://www.youtube.com/watch?v=wX1JG7ckEkY&t=8s&ab_channel=RadioFreeEurope%2FRadioLiberty)

The project is part of work of the **UNECE Environment Division** responsible for the implementation of the **UNECE Subprogramme 1- Environment**. The core objective of the UNECE Sub-program 1 is to improve environmental governance and performance throughout the region for safeguarding the environment and health.

The project builds on the activities and outcomes of its previous phase entitled “Capacity building for cooperation on dam safety in Central Asia 2014-2017” with a total funding of US\$ 300,000 provided by the Russian Federation. The overall objective of this 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. Efforts targeting the achievement of the overall objective consisted of the following main activities:

- 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

Building on the 2014-2017 phase the objective of the project’s third phase, designed for the period 2017-2020, was to strengthen national and regional capacities of Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) for development and implementation of the institutional, regulatory and technical frameworks for dam safety.

To achieve these objectives the project design included different activities including a series of annual regional meetings for exchange of information and development of interstate cooperation among key stakeholders with responsibility for running and maintenance of hydraulic facilities; support to drafting by consultants of national legislation; organization of two roundtables/seminars to discuss draft legislation; two regional capacity building events to “train the trainers” on dam safety; and development and show-casing of the dam technical solutions for transboundary safety monitoring.

## • Subject of the Evaluation

Subject of the evaluation is the project “Capacity building for cooperation on dam safety in Central Asia (phase 3)”. **The objective** of the project was to strengthen national and regional capacities of Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) - for development and implementation of the institutional, regulatory and technical frameworks for dam safety.

The UNECE Technical cooperation project form indicated that the objective of the project would be achieved through the following **activities**:

- A1.1. Organisation of three annual regional meeting for exchange of information and development of interstate cooperation;
- A2.1. Support to drafting by consultants of national legislation and organization of two roundtables/seminars to discuss draft legislation;
- A2.2. Organisation of two regional capacity building events to “train the trainers” on dam safety;
- A3.1. Development and show-casing of the dam technical solutions for transboundary safety monitoring.

The same document stipulated the following expected **results/outcomes** of the project:

- EA1. Improved inter-state cooperation on dam safety in Central Asia
- EA2. Improved national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety in Central Asia
- EA3. Improved safety and transboundary cooperation on individual dams

The project activities were funded by the government of the Russian Federation in amount of US\$ 302’840. According to the UNECE Technical cooperation project form the UN regular budget resources dedicated to the project activities were estimated as 2 months of P5 level/Regional Advisor and 2 months of P3 level/ECE-ESCAP office in Almaty.

The Project’s implementation (third phase) time was of four years (from July 2017 to June 2021). The project previous phase lasted from 2014 to 2017 and was also funded with a similar amount by the government of the Russian Federation (US\$300,000).

## • Purpose of the evaluation



According to the consultant’s TOR, the primary purpose of the evaluation was to assess the extent to which the objectives of the project “Capacity-building for cooperation on dam safety in Central Asia (phase 3)” were achieved. The evaluation was expected to assess the relevance, coherence, effectiveness, efficiency, and sustainability of the project in supporting member States to cooperate on dam safety in Central Asia and improving national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety. The evaluation was also expected to assess the level of attention paid on human rights, gender equality results, and disability inclusion in the context of the project and to examine the use of available resources according to the principle value for money.

The results of the evaluation, including recommendations may improve the services provided by the UNECE to member States through regular technical cooperation as well as for the discussion with donors and partner organizations about any future work by UNECE in the Central Asia region and beyond.

#### • **Scope of the evaluation**

The evaluation covered the entire period of the original project’s life-time, starting from September 2017 to June 2020, and its two extensions, to December 2020 and later on to June 2021. The beneficiary countries of this project (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) were associated in the activities underpinning in this evaluation. The final evaluation assessed project performance against expectations set out in the projects’ logical framework.

The consultant’s TOR stipulated the consideration of the universally recognized values and principles of human rights and gender equality and their integration at all stages of the evaluation, in compliance with the United Nations Evaluation Group’s revised gender-related norms and standards.

Therefore, the evaluation also assessed how gender considerations were included in the process and made recommendations on how gender can be included better in the similar projects in the future.

## **IV. Evaluation methodology and limitation factors**

#### • **Methodology**

The overall evaluation methodology was guided by the assessment purpose, objectives, and key review questions. The evaluator applied a mixed methodology, participatory and inclusive approach to arrive at unbiased and credible findings. The evaluation framework, as it was framed by the Evaluation Terms of Reference (TOR) prepared by the UNECE, provided a foundation for the assessment. The respective TOR cleared by the UNECE Program Management Unit (PMU) are available in annex 1.

The final evaluation methodology comprised the following process and sequencing:

##### **1. Desk research**

The evaluation reviewed and analyzed all relevant documentation (List of documents reviewed is in annex 2) that was provided by UNECE project staff and other stakeholders as available. Documentation comprised reports and outputs resulting directly from work under the project, including:

- regional meetings and national workshops reports,
- papers presented during the regional meetings,
- project technical cooperation form,
- budgetary information,
- annual progress reports,
- national dam safety situation reviews,
- bilateral agreements on dam safety,
- electronic questionnaires completed by the stakeholder,
- relevant legal, regulatory and technical documents related to dam safety in Central Asia,

- list of participants in major regional and national seminars and meetings, and other information as provided to the evaluator.
2. **Semi-structured interviews** with key stakeholders (via telephone or skype) including: relevant Government officials in the beneficiary countries, national agencies responsible for the management of hydrotechnical installations, project consultants, participants of project workshops, OSCE Center in Kazakhstan, GIZ Office in Uzbekistan, Vodohospodarska Vystavba, Bratislava (dam safety agency of the Slovak Republic), UNECE project manager and other relevant stakeholders.
  3. **An electronic survey** of internal and external stakeholders, in English and Russian. Both versions of the questionnaire were developed by the consultant to assess the perspective of main stakeholders; results of the survey were disaggregated by gender. The final list of the stakeholders interviewed and/or contacted by an electronic survey with details is provided in annex 3.

#### 4. Data review and analysis

A mixture of qualitative and quantitative data was collected during the desk research, stakeholders semi-structured interviews and electronic consultations. Data was reviewed, collated, triangulated and analyzed, and then integrated in the report in narrative or tabular form as appropriate.

#### 5. Evaluation report

The draft evaluation report was delivered to UNECE Geneva for review, and the feedback received from UNECE Geneva was incorporated into the final report.

The evaluation was conducted in accordance with the UNECE Evaluation Policy, including gender-responsive methodology, methods and tools, and data techniques. The evaluation findings, conclusions and recommendations reflect a gender analysis. The methodology was aligned with the requirements of the Office of the internal oversight service COVID-19 Response Evaluation Protocol. The evaluation activities were guided by the basic principles of effective and sound evaluation including OECD/DAC evaluation criteria.

- The OECD/DAC six evaluation criteria<sup>3</sup> were applied as an essential background. Those criteria are as indicated in the box 1.

#### Box 1: The OECD-DAC Evaluation Criteria

-	<b>RELEVANCE</b> <u>is the intervention doing the right things?</u>
-	<b>COHERENCE</b> <u>how well does the intervention fit?</u>
-	<b>EFFECTIVENESS</b> <u>is the intervention achieving its objectives?</u>
-	<b>EFFICIENCY</b> <u>how well are resources being used?</u>
-	<b>IMPACT</b> <u>what difference does the intervention make?</u>
-	<b>SUSTAINABILITY</b> <u>will the benefits last?</u>

- Special emphasis was placed on distinguishing as rigorously as possible, at all stages of the evaluation process, between findings (facts), conclusions (interpretation of the facts, drawing on the judgement of the evaluator), and recommendations (reasoned advice based on the evaluation findings and conclusions).

<sup>3</sup> <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

The final evaluation report's structure and methodology was designed in compliance with the UNECE Evaluation Policy and Evaluation Guide<sup>4</sup> and reflecting the United Nations Evaluation Group norms and standards. As prescribed by the TOR the evaluation addressed the following issues: relevance, coherence, effectiveness, efficiency and sustainability, as follows:

1. Assessment of the relevance of the project's design and implementation for meeting the project's objectives as well as in light of the specific needs/priorities of the beneficiary countries and the UNECE mandate as expressed in the UNECE Program of Work, including the Water Convention. The project's consistency with the 2030 Agenda and the extent to which the project focused on the needs of the most vulnerable groups of population and considered gender equality in its work.
2. Evaluation of the level of coherence in the collaboration with the UN system, other international organizations in the region and the degree to which the activities were implemented in the required sequence needed to ensure the greatest impact of the project.
3. Assessment of the effectiveness of the Project's considering the degree of achievement of the results expected during the project design in terms of planned activities, outcome and impact. In the same context the evaluation identified the challenges/obstacles faced in the implementation process.
4. Evaluation of the level of efficiency in the use of the human and financial resources allocated to the project, and whether these resources were commensurate to the project's results..
5. Review of the sustainability and ownership of the Project's outcomes in the beneficiary countries and the degree to which the project influenced the practices in these countries to further pursue cooperation to improve the safe management of dams in the region. The possibility of replication of the similar activities in the UNECE region and beyond was also looked at.

For each of the evaluation criteria a cluster of questions was established, including the assessment of the levels of accomplishment. Rating for the levels of accomplishment was established on four-point scale: **high, partial, little and not at all**. The relevance of the Project's activities with regards to gender equality, empowerment of women and incorporation of the perspective of the most vulnerable groups was reviewed as well. The approach was guided by the gender-responsive methodology, methods and tools in line with the United Nations Evaluation Group norms and standards. A gender analysis was reflected in the evaluation findings, conclusions and recommendations.

The feedback received from the interviews and completed questionnaires was integrated into the evaluation report after a careful analysis, cross-checking and triangulation. The research methods applied were predominantly qualitative, with a quantitative element limited to descriptive statistics. The outcomes generated by desk reviews, interviews and evaluation questionnaires were synthesized and aggregated by main issues. The data and information received were triangulated and cross-validated considering carefully the issues of convergence and divergence.

Considering the absence of indicators of successful accomplishment in the Technical Cooperation Project Form the evaluator integrated in the evaluation matrix also this component. The matrix was designed by the evaluator to facilitate evaluation process and ensure its clarity and transparency (Table 1). The matrix brought to one place an overview of the evaluation criteria, data sources, data collection and analysis methods and indicators of successful accomplishment of outputs/outcomes.. Key questions related to each of the five evaluation criteria are described in the section containing the evaluation findings.

**Table 1: Evaluation matrix:**

Evaluation criteria	Data sources	Data collection and analysis method	Indicators of success
Relevance	The Technical Cooperation Project Form, annual implementation reports, policy guidelines, financial	Review/analysis of key documents related to the Project, individual interviews, electronic questionnaire, analysis,	Level to which the activities accomplished and outcomes achieved responded to the needs and priorities of the beneficiary countries, were consistent with the 2030 Agenda, other global and regional

<sup>4</sup> [https://www.unece.org/fileadmin/DAM/press/pr2014/UNECE\\_Evaluation\\_Policy\\_October\\_2014.pdf](https://www.unece.org/fileadmin/DAM/press/pr2014/UNECE_Evaluation_Policy_October_2014.pdf)

	reports, regional meetings and workshops' reports, country-specific documents, feedback from interviews and questionnaires, other documents reviews.	synthesis, triangulation and cross-validation of views and information.	priorities, and with the UNECE program of work. Degree of attention to the needs of the most vulnerable groups consideration and the gender equality. Level of the relevance of the project design and implementation for meeting the project's objectives.
Effectiveness	The Technical Cooperation Project Form, annual implementation reports, policy guidelines, financial reports, regional meetings and workshops' reports, country-specific documents, feedback from interviews and questionnaires, other documents reviews.	Review/analysis of key documents related to the Project, individual interviews, electronic questionnaire, analysis, synthesis, triangulation and cross-validation of views and information.	Extent to which the results expected during the project design in terms of planned activities, outcome and impact were achieved. Extent to which the challenges/obstacles to achieving the planned activities and objective of the project have been addressed effectively.
Efficiency	The Technical Cooperation Project Form, annual implementation reports, policy guidelines, financial reports, regional meetings and workshops' reports, country-specific documents, feedback from interviews and questionnaires, other documents reviews.	Review/analysis of key documents related to the Project, individual interviews, electronic questionnaire, analysis, synthesis, triangulation and cross-validation of views and information.	Extent to which the human and financial resources allocated to the project have been used efficiently and commensurate achieve expected results. Extent to which the allocated resources were appropriate to the design of the project.
Sustainability	The Technical Cooperation Project Form, annual implementation reports, policy guidelines, financial reports, regional meetings and workshops' reports, country-specific documents, feedback from interviews and questionnaires, other documents reviews.	Review/analysis of key documents related to the Project, individual interviews, electronic questionnaire, analysis, synthesis, triangulation and cross-validation of views and information.	Extent to which the products developed through this project can be maintained, implemented, and replicated in the UNECE region or in other regions. Level to which the project influenced the practices of beneficiary countries to further pursue cooperation to improve the safe management of dams in the region.
Coherence	The Technical Cooperation Project Form, annual implementation reports, policy guidelines, financial reports, regional meetings and workshops' reports, country-specific documents, feedback from interviews and questionnaires, other documents reviews.	Review/analysis of key documents related to the Project, individual interviews, electronic questionnaire, analysis, synthesis, triangulation and cross-validation of views and information.	Level of coherence in the collaboration with other entities of the UN system and other international organizations in the region. Degree of coherence in appropriate sequencing the activities needed to ensure the greatest impact of the project.

## • Limitation factors

The major limitations in carrying out the final evaluation were:

- The advent of COVID-19 and associated travel restrictions had a significant effect on the evaluation process. The COVID-19 was declared by the World Health Organization as a worldwide pandemic. The crisis management measures

put in place by the beneficiary countries, as well as by the UN system prevented travels to/from the beneficiary countries and led to the changes in the execution of the planned Project’s activities as well as of the evaluation approach.

- Several of the interviewed stakeholders were involved only in some areas of the Project activities and during the interviews were not in a position to provide a “comprehensive picture” of the Project’s successes and failures.
- The capacity development workshops’ outcomes were not consistently assessed and documented, that made the assessment of the capacity development events’ impact on the project’s outcomes and its overall objective difficult.

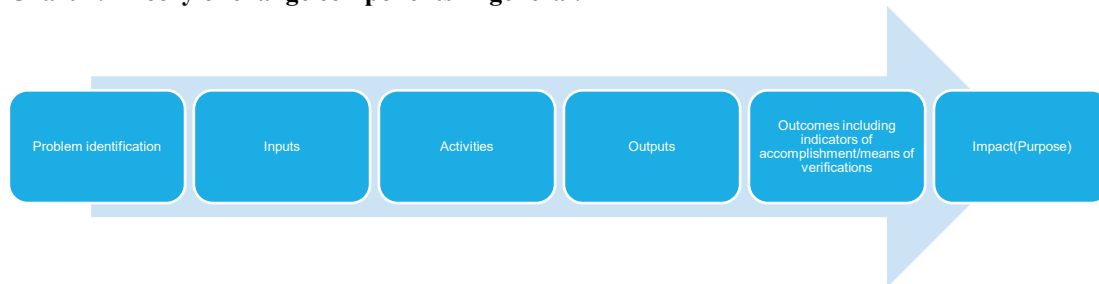
## V. Theory of Change

This chapter describes the theory of change in general, and also comments on how it was reflected in the project’s document under evaluation. Generally, the theory of change should show a time-bound pathway from ‘start’ to ‘end’ of the project by specifying the needed steps to achieve certain goals/objectives.

As far as the capacity development projects are concerned, the theory of change articulates pathways followed by the project for achieving a desired change, identifying the solution proposed for addressing the existing problems, by identifying the activities which can generate the outputs and outcomes and resulting finally in pertinent solutions. The pertinent solutions, in turn, result in achieving the overall objective/impact. These pathways leading to a desired change are generally demonstrated in the logical framework document as a major tool for demonstrating the philosophy of any project.

For the project evaluated in this report the logical framework document (Log frame) was not specifically designed. Nevertheless, the evaluation was able to identify some steps belonging to theory of change in the Technical Cooperation Project Form. However, it was noted that some important elements of the theory of change approach were not reflected in the Technical Cooperation Project Form (PRODOC), e.g. problem description, indicators of accomplishment for the expected results (outcomes) as well as means of verification of the level of achievements of the planned results are missing.

**Chart 1: Theory of change components in general:**



The Technical Cooperation Project Form included only some steps of the comprehensive theory of change pathway as shown in chart 2.

**Chart 2: Steps considered in the Technical Cooperation Project Form**



According to the Technical Cooperation Project Form **the inputs** consisted of the financial resources (USD 302.804,-) and human resources from the UN regular budget (2 months of P5 UNECE Regional Advisor and 2 months of P3 UNECE-ESCAP office in Almaty).

The financial and human resources supported the implementation of the following **activities**:

- A1.1. Organisation of three annual regional meeting for exchange of information and development of interstate cooperation;

- A2.1. Support to drafting by consultants of national legislation and organization of two roundtables/seminars to discuss draft legislation;
- A2.2. Organisation of two regional capacity building events to “train the trainers” on dam safety;
- A3.1. Development and show-casing of the dam technical solutions for transboundary safety monitoring.

The expected accomplishments/results/**outcomes** as written in the Technical Cooperation Project Form were defined as:

- EA1. Improved inter-state cooperation on dam safety in Central Asia
- EA2. Improved national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety in Central Asia
- EA3. Improved safety and transboundary cooperation on individual dams

The proposed **objective** of the project was:

To strengthen national and regional capacities of Central Asian countries for development and implementation of the institutional, regulatory and technical frameworks for dam safety.

PRODOC failed to consider the possible risks to project implementation. Project governance structure was not described.

## VI. Findings

The outcome evaluation sought to answer some important questions focused around evaluation criteria as outlined in the TOR. Considering five evaluation criteria, relevance, coherence, effectiveness, efficiency and sustainability the findings’ section is outlined in five sub-sections. Each sub-section relates to one of these criteria. Findings are based on the reading, analysis, cross-checking and triangulating of all available documents and the feedback received from the project’s main stakeholders. After descriptive assessment and analysis based on the inputs received from the contacted stakeholders and reviewed documents a consolidated evaluation rating was established for each of five criteria.

**Table 2: Four-point scale for ratings**

<b>Rating</b>
<b>Highly</b> (relevant, coherent, effective, efficient, sustainable)
<b>Partially</b> (relevant, coherent, effective, efficient, sustainable)
<b>Little</b> (relevant, coherent, effective, efficient, sustainable)
<b>Not at all</b> (relevant, coherent, effective, efficient, sustainable)

## RELEVANCE

This section contains an assessment of the relevance of the project based on independent analysis of the external evaluation and stakeholders’ views and perceptions on the underlying questions. The evaluation of relevance was concerned with the project consistency with important global development agendas, program of work of UNECE, regional priorities, appropriateness of the project’s focus in addressing needs of the beneficiary countries. The levels of gender equality consideration and attention to vulnerable groups special needs were also looked at.

The relevance chapter analyses the opinions received from the key stakeholders and outputs stemming from the background documents in responding to the evaluation questions 1 to 4, which were determined in the Terms of Reference for this evaluation.

### **Question 1: To what extent was the project consistent with the 2030 Agenda and other global and regional priorities and the program of work of the UNECE, including the Water Convention?**

The project was fully consistent with the 2030 Agenda<sup>5</sup> in supporting the expected achievements of Sustainable Development Goal (SDG) 9, and in particular its Target 9.1 “By 2030, develop quality, reliable, sustainable and resilient infrastructure,

<sup>5</sup> <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all”.

Its activities and outcomes were also aligned with SDG 6 and its target 6.5 “By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”, and SDG 7 and its target 7.1 “By 2030, ensure universal access to affordable, reliable and modern energy services”.

The project design was also consistent with another global agenda, the Sendai Framework for Disaster Risk Reduction 2015-2030<sup>6</sup> adopted at the Third United Nations World Conference on Disaster Risk Reduction, held from 14 to 18 March 2015 in Sendai, Miyagi, Japan. Hundreds of dams in Central Asia were constructed 60-70 years ago, and the resources for their proper maintenance have not been sufficient. Therefore, the potential of a possible dam accident is considerable. This risk is further exacerbated by the fact that the region is frequently affected by earthquakes. Such an accident could result in a major technological disaster with catastrophic consequences for population, economic assets and environment. Safer operation of individual dams is aligned with the Sendai Framework outcome expected over period 2015-2030 “The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries “.However, this alignment was not fully exploited during the implementation of activities since the national authorities mandated for disaster/accident risk reduction played secondary role in the project.

The project was well aligned with the UNECE mandate as expressed in its strategic framework/biennial program plans 2016-2017<sup>7</sup> and 2018-2019<sup>8</sup>, as well as with the Water Convention<sup>9</sup>. The project outputs/outcomes made a pertinent contribution to the fulfilment of the UNECE responsibility for facilitating economic integration and cooperation among its member States and promoting sustainable development and economic prosperity in the UNECE region. Management of dam safety is an integral part of environmental governance with a significant potential in impacting sustainable development and economic progress. The UNECE Water Convention was adopted in 17 March 1992 and entered into force on the 6 October 1996. The Convention requires states to, ‘prevent, control and reduce transboundary impact during the use of transboundary waters in a reasonable and equitable way, and ensure their sustainable management’. Project’s focus on dam safety, and regional and transboundary cooperation on the use of transboundary waters was therefore consistent with the priorities of the UNECE Water Convention.

## **Question 2: To what extent did the project respond to the priorities and needs of the beneficiary countries?**

PRODOC failed to contain the text describing a “problem statement” in functions of the assessment of the priorities and needs of the beneficiary countries. From reading of PRODOC it was not clear what were the priorities and needs of the beneficiary countries at the beginning of the 3<sup>rd</sup> phase. Therefore, the evaluation of relevance in this area was made against the views and statements of the key stakeholders and analysis of relevant documents, in particular the evaluation report of the 2<sup>nd</sup> phase of the project issued in 2017. Based on stakeholder consultation, review of available documentation and prevailing concerns regarding dam safety in Central Asia it can be concluded that the project was addressing a major concern in the region in the broader nexus of energy, agriculture, climate change, water and safety of population.

There are several hundred large and medium size dams in Central Asia the safety of which is a source of concern and majority of them are situated on transboundary rivers. After the collapse of the Soviet Union, the countries of the region did not develop all legislative, regulatory and technical documents required for a safe operation of dams. Logically, this results in a high level of dam safety risks in the region. In addition, the majority of these dams were constructed very long time ago, “and the funds for their adequate maintenance have been limited”<sup>10</sup>. Thus the probability of dam failure, which could result in a major human, economic and environmental disaster is high. The level of potential negative consequences stemming from dam failure has been constantly rising due to population growth in the flood plains downstream from many dams in Central Asia.

In addition to safety risk the hydraulic dam constellation in Central Asia includes also a security risks which was confirmed during the interviews with the stakeholders. Water sources of several major rivers are located in one country but the water energy generated by these rivers is exploited also in other countries. As a matter of fact, the upstream countries(Kyrgyzstan, Tajikistan) are highly depending on the energy production through hydropower produced, while the downstream countries(Kazakhstan, Turkmenistan, Uzbekistan) are highly depending on the water for agricultural irrigation purposes. Probability of security risk originating from water management problem was confirmed quite recently (April 2021) by escalation of armed conflict on the

<sup>6</sup> [https://www.preventionweb.net/files/43291\\_sendaiframeworkfordrren.pdf](https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf)

<sup>7</sup> <https://undocs.org/en/A/69/6/Rev.1>

<sup>8</sup> <https://undocs.org/en/A/71/6/Rev.1>

<sup>9</sup> <https://unece.org/fileadmin/DAM/env/water/pdf/watercon.pdf>

<sup>10</sup> United Nations Economic Commission for Europe. 2007. Dam Safety in Central Asia: Capacity-Building and Regional cooperation. Water series No.5 New York and Geneva: UNECE

border between Tajikistan and Kyrgyzstan. The security risk constitutes a major bottleneck in the process of signing a regional cooperation agreement on dam safety.

The key issue addressed by the project was the regional and transboundary cooperation. This aspect is especially important for transboundary river dams that, on one side, can cause major damage to the downstream countries in the case of dam accident and, on the other side, may become a source of a serious dispute between the upstream and downstream countries concerning water scarcity. Considering these persisting challenges the Government representatives of all beneficiary countries expressed during the interviews their interest and continued need in receiving the UNECE assistance in capacity building for cooperation on dam safety. This situation makes capacity building on dam safety in Central Asia a high priority issue on both regional and national scale, which was fully acknowledged in feedback received from stakeholders from all countries concerned through interviews and electronic questionnaire. The project was initiated following official request of the states of Central Asia which consider the enhancement of dam safety as priority area. It was a logical continuation of efforts made during its previous phases. At this stage, the project is a unique regional initiative of his nature that attempts to address capacity development, legal and institutional strengthening and the improvement of regional cooperation in the safe management of dams in Central Asia.

**Question 3: To what extent was the project focused on the most vulnerable? Was disability inclusion mainstreamed at all stages of the project cycle? Did UNECE advocate for gender equality in this area of work?**

As already mentioned, the text of the PRODOC has not been drawn up enough. PRODOC listed key target groups and beneficiary countries as **“Main target groups are national institutions in Central Asia countries responsible for the safety of hydro-technical installations (Committee for water resources, Ministry of Environment and Water Resources, Kazakhstan; State Committee for Water Management and Melioration, Kyrgyzstan; Ministry of Energy and Water Resources and State Service on the Supervision in the Field of Safety of Hydraulic Constructions, Tajikistan; Ministry of Agriculture and Water Resources, Turkmenistan; Water Control Facilities Committee “Gozvodkhoz nadzor”, Uzbekistan). Beneficiary countries are Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan “.** However, the same document was short of making any statement concerning the need to focus a special attention on the most vulnerable groups, including disabled people. The need for advocating for gender equality in the area of dam safety was not mentioned, as well.

Gender equality is “ a broad concept and a goal for development. It is achieved when men and women have equal rights, freedoms, conditions, and opportunities for realizing their full potential and for contributing to and benefiting from economic, social, cultural, and political development. It means society values men and women equally for their similarities and differences and the diverse roles they play.”<sup>11</sup> Moreover, in case of a dam failure as a consequence of insufficient level of dam safety women and men have different needs and attitudes. Lessons learned from implementation of technical cooperation projects showed that the need for integration of advocacy for gender equality as well as for focusing on the most vulnerable, including disabled had to be considered during the project design phase. If not, these issues are left on the back burner. As a matter of fact, these issues were not addressed by the PRODOC.

Contrary to the 1<sup>st</sup> phase, the 3<sup>rd</sup> phase of the project considered linkages between dam safety level and the probability of dam accident/disaster only vaguely. This might be one of the reasons why the gender equality and special needs of the most vulnerable, including people with disabilities did not figure in the project design and was not sufficiently considered in the activities. This is a shortcoming since, in general, women and men face different burdens as a result of intense dam safety events. Women and girls are typically relegated responsibility for unpaid household work and caregiving, particularly in less economically developed regions and in rural communities; water scarcity caused by climate change and lack of fair bilateral and regional cooperation on dam management and safety directly affect this work. Women’s unpaid care work will become increasingly time-consuming given climate change and water scarcity impacts on water availability and food production. Globally, in the aftermath of dam accidents, women carry out the majority of care and reproductive work. As a result, women have less time for paid work and to “participate in community decision-making, gain knowledge on adaptation strategies, or invest in new resilient livelihoods” (UNDP, 2020). With more limited access to credit, information and relief services, women have fewer resources upon which to rely when a shock or disaster occurs (Shah, 2006). In the aftermath of disasters, women’s socio-economic marginalized status leaves them less likely to have the social status or material resources to rebuild homes and return to communities of origin (Dankelman, 2009). These factors reinforce and perpetuate the marginalization of women and girls. At the same time, women in Central Asia are skilled at mobilizing social networks and maintaining community structures and play a pivotal role in ensuring better outcomes for affected population following disasters caused by accidents/disasters. It is also critical to recognize that they are also powerful agents and leaders in their families and communities. Women and girls can play key roles providing resources for their families, facilitating migration, and adapting during displacement due to dam rupture or

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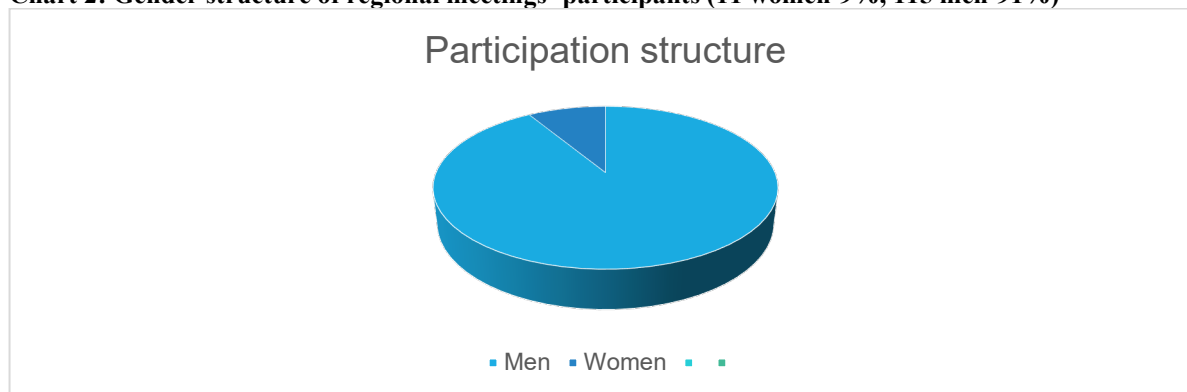
<sup>11</sup> ADS 201.3.9.3, effective 11/5/2009



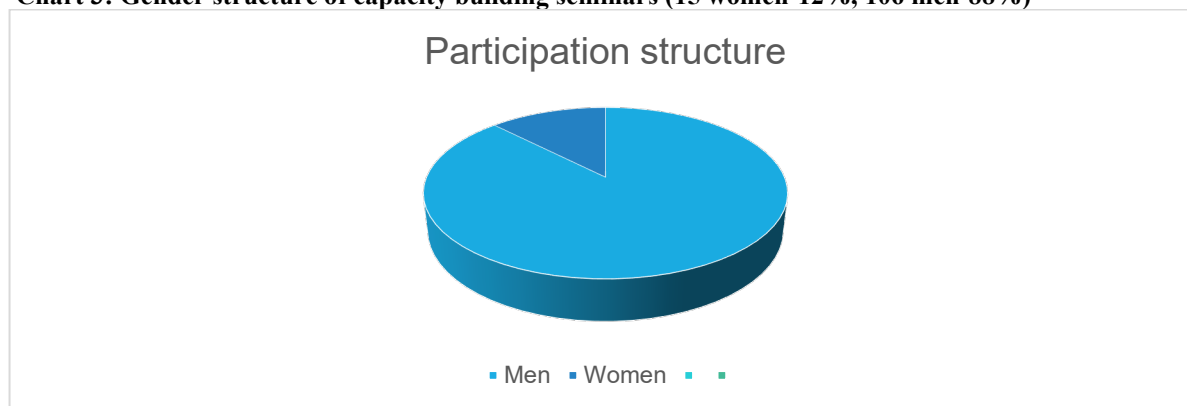
similar disasters. These gendered dimensions of vulnerability can be compounded by other factors, including age, disabled status, minority status etc. The 3<sup>rd</sup> phase was addressing exclusively the technical and technological aspects of dam safety. According to the statements made by almost all interviewed stakeholders the technical and technological aspects of dam safety are in the Central Asia historically a domain with a predominance of men.

The only visible sign of advocacy for gender equality was the UNECE effort to stimulate participation of women in the regional meetings and capacity building seminars. However, despite this effort there was quite limited participation of women in the project-related events as demonstrated in the following charts. Besides this aspect, the evaluator did not find evidence to suggest that gender and most vulnerable groups related issues were given special attention as part of this project. Charts 2 and 3 show the gender structure of the regional meetings and capacity building seminars organized in the project's context.

**Chart 2: Gender structure of regional meetings' participants (11 women-9%, 115 men-91%)**



**Chart 3: Gender structure of capacity building seminars (15 women-12%, 106 men-88%)**



Some stakeholders noted that during the preparation of regional meetings and workshops UNECE has consistently highlighted the importance of gender equality and the need to address the needs of vulnerable groups. A couple of stakeholders thought that there were no barriers to the integration of persons with disabilities at all stages of the project cycle. However, the prevailing view of the stakeholders was that advocacy for gender equality, and focus on the most vulnerable groups were addressed little.

**Question 4: How relevant was the project's design and implementation for meeting the project's objectives?**

The project design is represented by the Technical Cooperation Project Form (PRODOC). As already mentioned, this form was extremely succinct - just one A-4 format page and a budget annex. Several important elements were not described in PRODOC such as problem analysis/assumptions, outputs, project implementation-related risks accompanied by mitigation measures, indicators of success, stakeholder analysis and timeframe for planned activities. A specific outline of the logical framework was also missing. Some gaps in the PRODOC were filled during the implementation phase, e.g. annual implementation reports included information concerning the indicators of accomplishment/success and time frame for the implementation of activities.

PRODOC presented clearly the objective/purpose of the project and the activities through which this objective should be achieved. It also outlined the expected results/outcomes. The implementation activities planned at design stage were highly relevant for accomplishments of expected results/outcomes. The expected results/outcomes, if accomplished were relevant for achieving the project's objective. A shortcoming consisted in the absence of description in PRODOC concerning the status of

dam safety in Central Asia as function of the level of existing national capacities, resources available to this end and existing collaboration arrangements. Therefore PRODOC text was not sufficient for making a sound judgement whether the project's design and its objective were relevant for addressing all critical gaps in the field of dam safety, including regional and bilateral/transboundary cooperation. To close this gap the evaluation had to search for other sources of information providing information regarding the status of dam safety in Central Asia and the pertinent regional and bilateral cooperation in this region.

UNECE and the project stakeholders reacted to new challenges created by the COVID-19 pandemic promptly and adequately. The process of redressing several pending activities was simplified by the fact that the Project was at the time of the outbreak of the COVID-19 pandemic in its final year. In spite of the amendments of the overall implementation approach, the Project clearly targeted its original overall objective and the planned outcomes, with a conversion of a few activities from the face-to-face mode to the virtual status.

Based on the feedback received from the key informants/stakeholders complemented with the analysis of the main Project-related reports and documents, the evaluation finds that the Project's design and its activities were **highly relevant**.

## COHERENCE

The coherence of the Project's activities was evaluated against the following criteria (evaluation questions 5 and 6):

- The degree of coherence in collaboration with other entities of the UN system and other international organizations in the region;
- The degree of pertinence in the implementation of activities in the required sequence needed to ensure the greatest impact of the project.

### **Question 5: How coherent was the collaboration with other entities in the UN system and other international organizations in the region?**

The project management approach was coherent in its close collaboration with several leading stakeholders in the field of dam safety in Central Asia. In general, the level of dam safety inherently involves two major areas: a) technical and technological level of dam building and its equipment and b) risk reduction and preparedness planning related to potential dam failure. The 3<sup>rd</sup> phase of the project was focused almost exclusively on technical and technological aspects. Therefore, UNECE established collaboration with international and regional organizations with a sound level of expertise and experience in addressing technical and technological side of dam safety such as GIZ, OSCE, IFAS and IWAC. Moreover, these partners have a strong focus on capacity building activities. These four main partners are active in the region and beyond focus and assisted the project in raising awareness about the dam safety in Central Asia. In addition, a practical collaboration was established with the company VODOHOSPODARSKA VYSTAVBA BRATISLAVA (VVB), Slovak Republic and its division on dam safety. VVB organized and financially supported a week-long workshop and a study-tour for the 20 Central Asian dam and water management experts in Slovakia.

GIZ (German International Cooperation Agency) operates in Central Asia since 1992 and is committed to support the host countries in sustainable development of different sectors, such as health, economic development and in the efficient management of natural resources. The GIZ traditionally engages in capacity building as major support to the partner countries in shaping their own future according to the identified needs. E.g. in Uzbekistan, GIZ implemented the EU program "Sustainable management of water resources in rural areas in Uzbekistan" promoting best European practice based on the EU Water Framework Directive and pursues the overall objective to contribute to sustainable and inclusive growth in the rural sector in Uzbekistan in the context of a changing climate. GIZ is also implementing "Transboundary Water Management in Central Asia" Program to support the countries of the region in water management and to make water a subject of intensified transboundary cooperation. Capacity building on different levels of engagement played a crucial role in this overall focus. GIZ enriched the project by its know-how in capacity building and financed the participation of the representatives of Uzbekistan in the meetings and workshops conducted by the project.

OSCE Program Office is an OSCE operation based in the capital of Tajikistan, Dushanbe. This office is active in supporting the efforts of the Republic of Tajikistan aimed at further economic and environmental development through, inter alia, further improvement of business and trade opportunities, development of energy and transport, good governance and combating corruption, as well as the protection of the environment, water resource management and disaster risk reduction, and maintaining the coherence of the regional approach of the OSCE in Central Asia. OSCE financed the participation of the representatives of Tajikistan and Kazakhstan in the meetings and workshops conducted by the project.

IFAS (International Fund for saving the Aral Sea) is the only regional organization where all the five countries of post-Soviet Central Asia are collaborating. Its President is elected from among the Heads of State. The stated objectives of IFAS include establishing and maintaining an interstate environmental monitoring system, database and other information systems with the data on the environment of Aral basin, mobilizing financing for joint activities to protect air, water and land resources, flora and fauna, as well as funding joint scientific and technological projects and measures for the management of transboundary domestic waters. The objectives of IFAS and its organizations are to work towards integration and cooperation in order to use existing water resources more effectively and efficiently, to ensure sustainable development and to adapt to climate change in the region. However, it is widely recognized that the present structure of IFAS needs to be improved and the legal base to be adapted to fit the needs of today. Regional meetings organized by the project were held “under umbrella” of IFAS to ensure the participation of all five countries.

IWAC (international Water Assessment Centre) was established as a collaborative center of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) at the second meeting of the Parties (March, 2000). The Water Convention<sup>12</sup> is a unique legally binding instrument promoting the sustainable management of shared water resources, the implementation of the Sustainable Development Goals, the prevention of conflicts, and the promotion of peace and regional integration. As of 2017, the center is hosted by the Kazakh government in Nur-Sultan. It aims to support the implementation and application of the Water Convention, its Protocol on Water and Health and their respective programs of work. The Centre’s work is in all Central Asian countries and beyond. The Centre’s terms of reference are very broad and include organizing training courses, promoting the exchange of expertise and good practices related to the work under the Convention and the Protocol.

The potential of a closer collaboration on capacity building for cooperation on dam safety with UNDP country offices in the five recipient countries was not explored. This collaboration should be considered in the future, since UNDP has been active in this area as a donor or implementing agency in several countries of the UNECE region( Georgia, North Macedonia, Albania, Montenegro).

The national and regional disaster management structures are another important players in preparedness for and mitigation of risks that are inherent in dam operations. The project maintained only sporadic links with the national emergency management authorities as well as with the Central Asia Centre for Emergency Situations and Disaster Risk Reduction which was officially inaugurated in Almaty, Kazakhstan in 2016 . The groundwork for the center was laid through one of the many EU-funded projects in the region as part of the [Disaster Preparedness ECHO programme \(DIPECHO\)](#). Closer cooperation with the emergency management partners would boost the coherence of the project further.

#### Question 6: Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?

The level of coherence in the implementation of activities in the required sequence was partial. In order to be fully coherent the sequence of activities should follow in a most effective time-bound pathway from ‘start’ to ‘end’ of the project by implementing the activities needed to achieve desired outcomes and overall objective in a logical and timely manner (as explained above in the section addressing the Theory of Change).

The shortcoming that somewhat limited the project coherence was a delayed recruitment of international consultant to support drafting of national legislation and organization of two seminars to discuss draft legislation. As a matter of fact, this consultant was hired less than 2 months before the project’s end. Therefore, the consultant could not provide a timely support in development and implementation of the national legislation and in organization of two seminars to identify solutions for persisting challenges in development and implementation of legal, regulatory and normative frameworks. The cancelation of activity A.3.1. – “Development and show-casing of the dam technical solutions for transboundary safety monitoring” impacted the project coherence also negatively. Implementation of this activity could improve the levels of coherence in future cooperation with main regional and international organizations in addressing safety gaps which such as “show-casing” exercise could demonstrate. A partial solution to replace activity A.3.1 was found by additional activities aiming at improving bilateral cooperation between Tajikistan and Uzbekistan focusing on the dam located on transboundary river, building capacity of Tajik authorities in coordination and early warning.

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<sup>12</sup> <https://unece.org/environment-policy/water/about-the-convention/introduction>

In conclusion, the level of and sequence in implementation of the project activities experienced some shortcomings. Therefore, the evaluation exercise concluded that the overall approach of the project in establishing effective collaboration links and sequencing the implementation of activities was **partially coherent**.

## EFFECTIVENESS

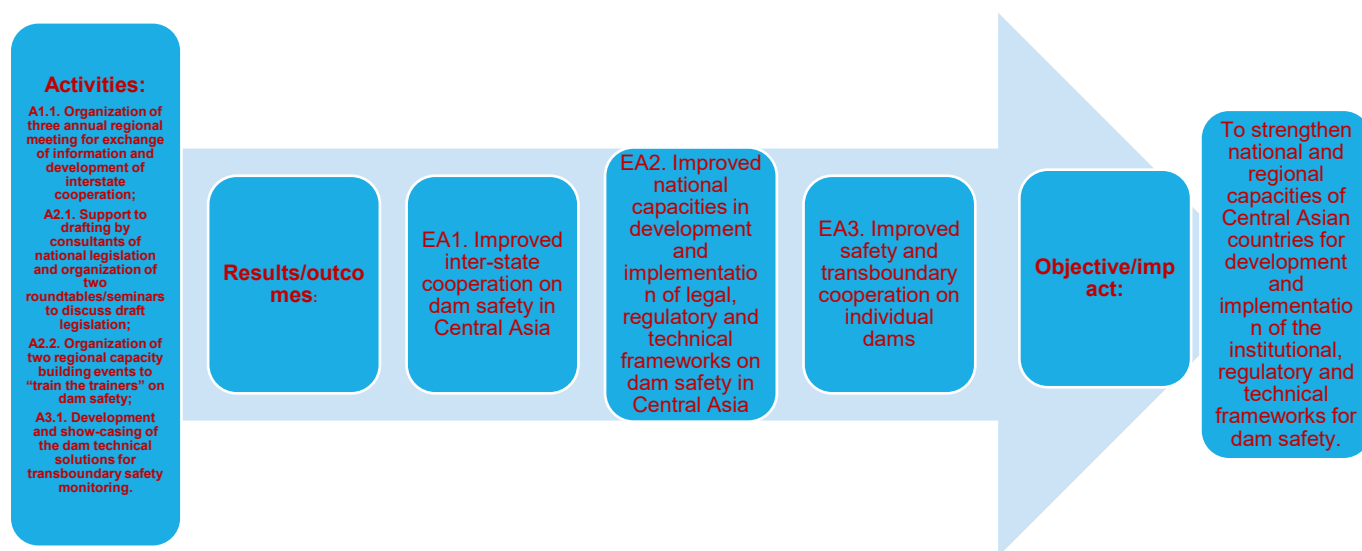
This section presents an analysis of the evidence in response to the evaluation questions about the effectiveness of UNECE contributions to the implementation of planned activities and to the achievement of expected outcomes and impact of the project:

- To what extent has the project implemented all activities as planned during the design phase?
- How the level of effectiveness in the implementation of planned activities influenced the achievement of expected outcomes and result?
- What obstacles impeded UNECE more effective performance in this area?

### Question 7: Did the project achieve the results expected during the project design in terms of the planned activities, outcomes and impact?

In general, the Project was designed and implemented using a well-thought and aligned logic. The coherence of this logic is evident from the horizontal hierarchy shown in the chart 4 where the project planned outcomes and impact are being met through employing an appropriate set of activities.

**Chart 4: Project’s planned activities, expected outcomes and objective:**



The starting point for assessing the effectiveness in the implementation of the planned activities, expected outcomes and impact was taking stock of the activities actually implemented, as well as outcomes actually achieved.

Activities planned under item A1.1. were **effectively implemented**. The 1<sup>st</sup> [Regional Meeting on Dam Safety Cooperation in Central Asia](#) was held in Almaty, Kazakhstan, May 30 - 31, 2018. The meeting was attended by 35 participants (including 6 females) coming from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. The meeting was also attended by representatives of IFAS, ROSTEKHNADZOR (Russian Federation), UNDP, OSCE, World Bank, Regional Environmental Center for Central Asia, Training Center for Safety of Hydraulic Structures. The 2<sup>nd</sup> [Regional Meeting on Cooperation on Dam Safety in Central Asia](#) was held in Tashkent, Uzbekistan, May 1-3, 2019. The meeting was attended by 40 participants (including 6 females). The meeting was also attended by representatives of regional and international organizations including IFAS, ROSTEKHNADZOR (Russian Federation), GIZ, OSCE, SDC, IWAC, Regional Environmental Center for Central Asia, Training Center for Safety of Hydraulic Structures and the French Development Agency (AFD). One of the key results of the meeting was a decision to resume the work on [the development of the regional agreement on dam safety cooperation in Central Asia](#). The 3<sup>rd</sup> in-person Regional Meeting on Dam Safety in Central Asia was scheduled for April 2020. However, the meeting had been cancelled due to the situation with the coronavirus in the region. Instead, a [virtual meeting](#) was conducted on June 15, 2020. The meeting was attended

by 12 people, including one woman. An important result of the meeting was the expression of intention by countries to develop regional agreement on cooperation on the safety of hydraulic structures in Central Asia. Upon request by country representatives the draft Agreement was shared with national authorities for their comments and feedback. By the end of the evaluation period, reports were received from Kazakhstan, Kyrgyzstan and Uzbekistan informing about the ongoing discussions of draft Agreement at the national level. Turkmenistan and Tajikistan did not provide any comments, as yet. It is to be noted that the Agreement was not envisaged by the initial project document. Therefore, it could be claimed that the project tried to go in this respect beyond the expected results.

Activities planned under item A2.1. were implemented with partial effectiveness since the consultants expected to provide support to drafting of national legislation during the seminars were not hired. Similarly, a round table planned for 2020 to discuss strengthening legal and institutional capacity for dam safety in Tajikistan was not held. In addition to the pandemic, the key reason of not conducting the roundtable was a vanishing interest of Tajik authorities in this activity. A training seminar on capacity building was held as part of the project, in NUREK, Tajikistan, 2 - 4 October 2018. The planned aim to strengthen institutional and legal framework of the Agency on Dam Safety Services in Tajikistan was achieved little. The seminar focused predominantly at sharing experience and best practices applied in the technical and technological field of dam safety management in Kazakhstan, Uzbekistan, and the Russian Federation (22 presentations). Little attention was paid to legislation-related issues with only 2 papers presenting examples of legal aspects of dam safety. The workshop was attended by 35 people 5 female participants. Round table on improving regulatory and institutional frameworks for ensuring the safety of hydraulic structures in Kyrgyzstan was conducted on September 10, 2019, in Issyk-Kul, Kyrgyzstan. The meeting was attended by 18 (including 4 females). The objective of the meeting was to discuss the improvement of national legislation and national regulatory and technical framework for the safety of hydraulic structures in Kyrgyzstan. In addition, the event was aimed to discuss cooperation opportunities in the field of dam management in Central Asia, as well as issues of harmonization of the legal frameworks and regulatory documents. 50 % of the papers presented during this round table focused on legal and normative aspects of dam safety. Project also supported the development and adoption of the “Regulation on conservation and decommissioning of obsolete hydrotechnical installations in Uzbekistan”, issued in June 2020 in Tashkent, Uzbekistan. Regrettably, a round table planned for 2020 to discuss strengthening legal and institutional capacity for dam safety in Tajikistan had to be cancelled due to the coronavirus pandemic and a vanishing interest of Tajik authorities.

Activities planned under item A.2.2. were implemented with high effectiveness. A regional training workshop was conducted in TARAZ, Kazakhstan on 16-18 October 2018. The workshop was organized and hosted by the Training Center for the Safety of Hydraulic Structures (TARAZ) and aimed to improve the skills of water management specialists in Central Asian countries in the field of hydraulic structures safety. The participants also visited the Talas hydrotechnical unit and the TERS-ASHCHIBULAK reservoir, where they deepened their knowledge about its operation and equipment. The event was attended by 36 experts including 8 women. From 7<sup>th</sup> to 11<sup>th</sup> October 2019 the project jointly with the financial and know-how support VODOHOSPODARSKA VYSTAVBA Bratislava(VVB) and with financial support from GIZ and OSCE organized a study-tour and a workshop for 20 Central Asian dam and water management experts (including 2 females). The dispute between Slovakia and Hungary concerning a dam situated in the territory of both countries on Danube River dispute, which was solved by an agreement, was presented as the case study demonstrating participants how the competing interests should be balanced to the benefit of all parties involved.

The implementation of activities planned under item A.3.1. did not take place. Instead, a suggestion to donor was made to develop and publish a regional synthesis report of hydrotechnical installations in Central Asia. This change diminished the efficiency of the project in terms of achievement of the expected results/outcomes and objective since the regional synthesis report would bring only a limited added value regarding innovative approaches on dam safety. Cancellation of the activity A 3.1. covering the development and show-casing of the dam technical solutions for transboundary safety monitoring diminished considerably the level of achievement of the outcome E A3. “Improved safety and transboundary cooperation on individual dams”. Nevertheless, some non-conclusive discussions on improving transboundary cooperation on individual dams took place at the regional meetings as well as at the national level. In the margins of the regional meetings discussions were held between Uzbekistan and Tajikistan, and Uzbekistan and Kyrgyzstan concerning bilateral cooperation on dam safety. A draft program for the development of bilateral cooperation on dam safety between Tajikistan and Uzbekistan has been proposed. However this initiative was not successfully concluded, since no reaction or any feedback to the draft program was received from the Tajik authorities, so far.

Outcome E A1. was achieved as confirmed during the interviews with the stakeholders. Considerable improvements were achieved in the quality of bilateral dialogue and cooperation in dam safety between Kazakhstan and Kyrgyzstan, and between Uzbekistan and Kyrgyzstan offering a promising perspective for a sustainable continuation.

During the life of the project **two bilateral agreements on cooperation on dam safety** were signed. In October 2017, an Agreement was signed between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on the interstate use of the ORTO-TOKOY (KASANSAY) reservoir in the Ala-Buka district of the Jalal-Abad region of the Kyrgyz Republic. Similar agreement between the Government of the Republic of Tajikistan and the Government of the Republic of

Uzbekistan on cooperation to ensure the functioning of the FARHAD Dam was signed on March 9, 2018. There is a realistic expectation that this kind of activities could be maintained and implemented by national authorities beyond the project duration.

With regard to the outcome E A.2. a sound effectiveness in its achievement was noted in Uzbekistan and to certain degree also in Kyrgyzstan, the level of achievement in the remaining three countries was limited. In spite of a partial effectiveness in implementation of the planned activities, the project made an important contributions to the public awareness and the advancement of the dam safety agenda in Central Asia.

The main focus of the project was on capacity development activities (workshops, seminars, study tour) as a key vehicle to achieving the expected outcomes and the overall objective. While such a strategy was pertinent, it was not supported by an efficient monitoring/evaluation of the capacity development events impact. The monitoring system failed to assess the level of contribution of the capacity development activities in supporting the achievement of the expected outcomes and the overall objective of the project. As a matter of fact, the relevance and degree of impact of the capacity development events was not evaluated by means of a formal questionnaire filled in by the seminars' participants. Good practice suggests that capacity development events should include a tangible evaluation segment (quiz, evaluation questionnaire, etc.) as tool for measuring the extent of their effective contribution to achieving of the expected project results.

A mixed success in delivery of all planned activities resulted in a **partial** achievements of the expected outcomes and the overall objective/impact of the project. This judgement also reflects the prevailing feeling that the stakeholders expressed during the interview phase.

#### **Questions 8: What were the challenges/obstacles to achieving the activities' objective and expected accomplishments?**

The main challenges/obstacles noted by the stakeholders during the project implementation were the following:

- Insufficient resources available in the countries of Central Asia for addressing aspects of dam safety in a comprehensive manner.
- Multiple changes of the political leadership and economic priorities in the several recipient countries.
- Methodological challenges stemmed from the fact that the countries of Central Asia did not achieve an agreement concerning the use of the model of national legislation on dam safety drafted in the previous phases of the project.
- COVID-19 pandemic outbreak created an additional challenge for a smooth implementation of the project planned operations. Replacement of face-to-face events by the on-line ones did not result in the desired effect.
- The quality and level of political and economic relations among five countries of the region varied frequently.
- Turkmenistan's participation and engagement in the project's activities was sporadic.
- Uzbekistan and to certain degree Kazakhstan were the only two countries that demonstrated a continuing interest in achievement of the project objective.
- The inputs/feedback required from the recipient countries were often provided with considerable delays.
- Insufficient number of leading international experts in dam safety and in the development of respective legal, regulatory and technical frameworks engaged in the project.
- Absence of the formally defined national coordinators for the project.

The countries of Central Asia continue facing multiple political, economic and institutional challenges. Given the internal nature of the majority of the challenges the project was not in a position to mitigate their negative impact on the effectiveness of its activities.

On the other hand, there were several other challenges, which negative influence on the project effectiveness could be reduced by the project management, such as: absence of the formally defined national coordinators, and limited recruitment of leading international experts in dam safety and the related legal, regulatory and technical frameworks. Project addressed these challenges in a limited scope. After independent assessment of the level of implementation of the planned activities and achievements of the expected outcomes and impact, the evaluation finds that **the effectiveness of the project was partial**.

#### **EFFICIENCY**

This section presents an analysis of the evidence in response to the evaluation questions about the efficiency of UNECE actions in converting the available human and financial resources into results as well as whether the funding was well spent and generated some added value.

**Question 9: Were the human and financial resources allocated to the project used efficiently and commensurate to the project results.**

The UNECE modality for project implementation requires alignment of all project activities with UN terms and conditions, notably for staff/employment, and procurement systems. This means that there was little flexibility available to the project management about the costs structures for recruitment of personnel, sub-contracting and travel related costs. Similarly, the procurement procedures were aligned with UN practice. In general, UNECE has been efficient in converting resources into results, although more so in some components than in others. Project has made impressive contributions to the exchange of good practices, training and networking which are efficient approaches for boosting the regional and transboundary cooperation of dam safety experts in Central Asia. The activities implemented were accomplished with a relatively modest budget. Contributions were less efficient in the development of policy, legal and regulatory frameworks and the regional agreement finalization.

During the interviews almost all stakeholders confirmed that the UNECE project management was highly diligent in seeking out budgetary discipline and cost efficiencies. These efforts resulted in a wise and adequate allocation of resources and facilitated the implementation of the project activities within the anticipated budget. Project resources were spent for the activities pertinent to achievements of the planned outcomes and objective.

In terms of the overall rate of spending, table 3 shows that funds were proportionally disbursed during the first two years of the project. During the third year 2020 the rate of expenditures has decreased abruptly, with a slight improvement in 2021. A low level of disbursement of funds in the last one-and-half year was caused by a negative impact of the COVID-19 global pandemic. By the end of 2020 expenditure represented almost 76 % of the total project budget. It is expected that by the end of the project (30 June 2021) the budgetary resources will be spent at approximately 93 %. According to this financial overview provided by UNECE, the unspent balance to be carried forward on 30 June 2021 will be USD 20,428.-.

**Table 3: Finance summary to June 2021**

<b>Capacity building for cooperation on dam safety in Central Asia (phase 3)</b>							
Budget item	Spent in 2018	Spent in 2019	Spent in 2020	Committed and Planned for 2021	Total	Expected balance	
<b>TA personnel</b>	<b>44 954</b>	<b>35 698</b>	<b>2 689</b>	<b>33 921</b>	<b>117 262</b>		
Individual contractor	9 322	4 861	0				
International/local consultants	35 632	30 837	2 689	33 921		13 078	
<b>Sub-contracting</b>	<b>58 695</b>	<b>30 164</b>		<b>12 485</b>	<b>101 344</b>		
Grants	58 695	30 164					
contractual services				12 485			
<b>Operating cost</b>	<b>0</b>	<b>3 247</b>			<b>3 247</b>		
	0	3 247					
<b>Travel and subsistence</b>	<b>3 036</b>	<b>23 574</b>	<b>0</b>	<b>0</b>	<b>26 610</b>		
Travel	3 036	23 574				5 000	
<b>UN programme and Support costs (13%)</b>	<b>0</b>	<b>13 869</b>	<b>12 049</b>	<b>350</b>	<b>6 033</b>	<b>2 350</b>	
<b>TOTAL</b>	<b>0</b>	<b>120 554</b>	<b>104 732</b>	<b>3 039</b>	<b>52 439</b>	<b>20 428</b>	

The human resources for ensuring the project management were funded from the UN regular budget resources, 2 months of P5/Regional Advisor (UNECE Geneva) and 2 months of P3 officer (UNECE-ESCAP office in Almaty).

The financial and human resources allocated to the project were commensurate to its results. The originally planned duration of the project was extended by 12 months. The main reasons of such an extension were the challenges stemming from the COVID-19 pandemic. The original deadline for the implementation of all activities was 30 June 2020. This deadline was extended twice, first time until 31 December 2020 and afterwards until 30 June 2021. Both extensions received a green light from the donor of the project budget. Continued financial support from the donor (Russian Federation) to the UNECE-managed project confirms donor satisfaction with the UNECE efficiency and adequacy in allocation of the human and financial resources allocated to the project.

**Question 10: Were the resources (financial and human) appropriate to the design of the project?**

Based on the prevailing feedback received from the project stakeholder and the evaluator's analysis, the overall assessment is that the financial and human resources allocated to the project implementation activities as design in the PRODOC were appropriate. Only a few interviewees thought that the scale of the project budget was rather small in comparison to all problems facing the dam safety in Central Asia. E.g. several concerns raised pointed to persisting (and not covered) need of conducting the technical reviews and putting in place pertinent technological solutions for the ageing dams.

An appropriate balance between the resources received from the donor and the requirements as designed during the project formulation was reached also thanks to the mobilization of additional resources from several additional stakeholders involved in the project.

In addition to extrabudgetary financial contribution from the core donor (Russian Federation), UNECE was proactive in seeking financial and human resources from other sources. Additional resources were mobilized from the recipient governments in providing workshop premises, assistance in logistics and information sharing, from the GIZ and OSCE regional offices in financing participation of stakeholders from the beneficiary countries in regional meetings and capacity building seminars. A substantive additional financial and human support was obtained from BBV Bratislava, Slovakia. BBV provided financial and in-kind support for organizing a study-tour and capacity building workshop held in 2019 in Bratislava, Slovak Republic, as well as for financing travel related to participation of international experts in the study-tour to a major hydro-electric dam in Slovakia. A very good level of synergy in using resources from different sources was noted.

The overall assessment of the project efficiency was that human and financial resources allocated to the Project were under complicated circumstances used **highly efficiently** and commensurate to the Project results. Nevertheless, the evaluator is of the opinion that the project would have been even more efficient if more resources were spent for improving national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety. From five Central Asia countries the project organized a practical "round-table" on improving regulatory and institutional frameworks only in one country (Kyrgyzstan).

## **SUSTAINABILITY**

The project "Capacity building for cooperation on dam safety in Central Asia" completed its 3<sup>rd</sup> phase. During its life-time the project experienced with regard to its sustainability several successful as well as less successful stories. Some problems continue to persist. This section presents an evidence and analysis in response to the evaluation questions about the sustainability of the UNECE contribution to the planned outcomes:

**Question 11: To what extent the products developed through this activity can be maintained and implemented? Could the activity be replicated in the UNECE region or in other regions?**

**Question 12: To what degree the project influenced the practices of beneficiary countries to further pursue cooperation to improve the safe management of dams in the region ?**

The experience from the capacity building-oriented projects reveals that sustainability mechanisms are inbuilt in almost all projects which design phase was accompanied by consultations with beneficiaries. Main stakeholders of the recipient countries were consulted during the period when the project was designed. These consultations were facilitated by the fact that the project was a logical continuation of the previous two phases. Active involvement of beneficiaries from project design through to implementation was the key factor to ensure sustainability of the products generated. Notwithstanding, the changes in the political and economic priorities, accompanied by staff turnover especially for trained staff in Government ministries/agencies was a key



challenge to sustainability. The lessons from the success stories show that the project has done well to build on the prior work carried out during its first and second phases.

Sustainability may be seen from various angles in relation to different aspects of the project. For example, some aspects linked to the accomplishments of the expected outcomes EA1 and EA3, (e.g. inter-state/transboundary cooperation on dam safety) may be assessed in the context of long-standing cooperation frameworks (IFAS, IWAC, etc.) that paid attention to this problem in a sustainable manner and there is a good perspective that this issue will be addressed also beyond the life of the project. As far as the expected outcome EA2 is concerned, the gradually growing awareness of the countries of Central Asia about the importance of the state-of-the-art legal, regulatory and technical frameworks on dam safety resulted in adoption of several up-dated frameworks. It can be realistically expected that these efforts will continue. In this context, it will be important for a continued sustainability in this field that some aspects are addressed in the future, at least partially, through national capacity building and technology-related budgets. The extent to which such resources will be made available in the future remains unresolved as at the time of this evaluation.

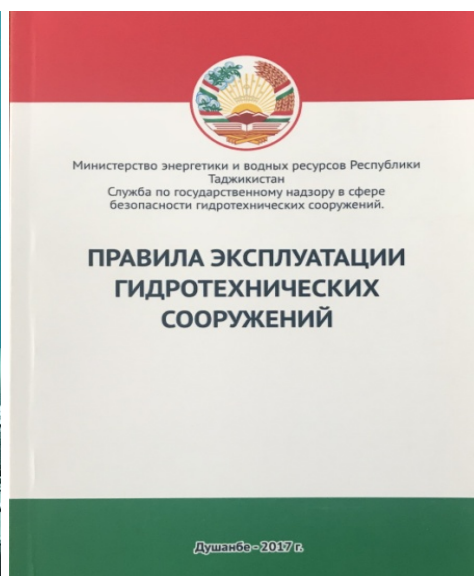
It is to be stressed that the overall thrust of the project is to address the capacity building on dam safety in Central Asia. This agenda involves multiple issues and challenges which cannot be “fixed” once and for all by a single project. As several stakeholders put it, “consideration of long-term sustainability has to be seen with a measure of reality, since there are some aspects that will just never be funded through national budgets...”. What was broadly confirmed during the interviews with and surveys received from the key informants is that the project has helped the national authorities with the responsibility for dam safety amplify their work and raise awareness as well as understanding that this issue requires a continued work. Similar impact was noted from the interviews with the international partners and some of them envisage to amplify their activities on dam safety. For example, GIZ has recently raised € 250,000 for a new project for training on dam safety with a main focus on Tajikistan (State Agency on Surveillance and Safety on Hydraulic Structures of Tajikistan). The training activities funded by GIZ will take place in the International Center on Safety of Hydraulic Facilities in TARAZ, Kazakhstan. The participants from Tajikistan, Uzbekistan (GOSVODHOZNADZOR), Kyrgyzstan (State inspection for Environmental and Technical Safety) and Kazakhstan will be invited to this training.

Project produced sustainable results for its beneficiaries also through providing a platform (annual regional meetings) for exchange of information and good practices related to dam safety and strengthening the inter-state cooperation as well as through several capacity building seminars/workshops and study tours. The unresolved issue is whether and how this regional platform continue its activities when the project lifetime is over.

Another important element of sustainability relates to project effects and impact on growing awareness of the urgent need to revise national legal, regulatory and technical frameworks on dam safety. **Tajikistan** adopted a new **"Water Code of the Republic of Tajikistan"** in 2020. Its article 36 defines the maintenance of the state register of water management structures. Article 66 of the Code states that water users operating hydropower facilities are obliged to ensure the development and filling of reservoirs, taking into account the priority of drinking and household needs of the population. The Code also reflects the requirements, rights and obligations of their operating services. It is also encouraging that the Government of the Republic of Tajikistan prepares a draft proposing the necessary amendments to its law on **"The Safety of Hydraulic Structures"**, adopted in December 2010. Earlier, in 2016, the **"Water Code of Turkmenistan"** was adopted, which covers the issues related to safe operation of the hydro-electric structures. The Republic of **Uzbekistan** drafted in 2021 the new law **"On Safety of Hydraulic Structures"** (annex 5). Moreover, in **Uzbekistan and Kazakhstan** the project stimulated the development and adoption of several new normative and technical frameworks on dam safety. E.g. project supported the development and adoption of the "Regulation on conservation and decommissioning of obsolete hydrotechnical installations in Uzbekistan", issued in June 2020 in Tashkent, Uzbekistan.

Last but not at least, **Tajikistan** published in 2017 a series of documents regulating normative and technical frameworks on dam safety such as: **technical reference manual, operational rules for hydrological structures and regulations for the safety of hydrological structures** as shown in Figure 3.

**Figure 3: Manuals and regulations issued in Tajikistan in 2017:**



All these positive changes were influenced by the project impact. As far as the background underlining the positive changes is concerned, the laws on the safety of hydrological structures has been adopted, as yet, only in two countries of the region – Uzbekistan and Tajikistan. At the same time, Uzbekistan is actively working on the creation of a new version of this document, by the development of new bylaws. Kazakhstan does not yet have a codified legislative system for ensuring the safety of hydrological structures. The legislative and regulatory framework for regulating public relations in this area is either outdated or formally transferred from the field of industrial production and construction in Kazakhstan. The Water Code of Kyrgyzstan contains norms directly related to the issues of ensuring the safety of the hydro-technological structures. However, this document needs to be corrected, providing for the clarification and addition of individual articles. This situation does not exclude the expediency of adopting an appropriate independent law in Kyrgyzstan. In Turkmenistan, the application of the normative legal documents of the Soviet period continues. The need to bring national legislation in line with existing requirements, as well as with international norms and standards, was drawn to the attention of the country's authorities during the project's meetings.

The regulation and legislative processes in Central Asia continue to be characterized by a complicated and protracted nature. The process of the development and implementation of legal, regulatory and technical frameworks is generally slow. Certain barriers could probably be overcome if additional funding is available for recruitment of an international expertise to guide national efforts and build sufficient capacities in this field.

Considerable improvements were achieved in the quality of bilateral dialogue and cooperation in dam safety between Kazakhstan and Kyrgyzstan, and between Uzbekistan and Kyrgyzstan offering a promising perspective for a sustainable continuation. During the life of the project **two bilateral agreements on cooperation on dam safety** were signed. In October 2017, an Agreement was signed between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on the interstate use of the Orto-Tokoy (Kasansay) reservoir in the Ala-Buka district of the Jalal-Abad region of the Kyrgyz Republic. Similar agreement between the Government of the Republic of Tajikistan and the Government of the Republic of Uzbekistan on cooperation to ensure the functioning of the Farhad Dam was signed on March 9, 2018. There is a realistic expectation that this kind of activities could be maintained and implemented by national authorities beyond the project duration.

It can be also realistically expected that the project's investments continue to deliver benefits beyond the life of the project in the field of improved inter-state cooperation on dam safety. However, considering the national budgetary limitations and the procurement rules of the UN and other international organizations a limited progress can be realistically expected in the area of procurement of a monitoring and warning equipment for dam safety that would meet the state-of-the-art standards. The countries of Central Asia will need an additional hands-on-the-job assistance to consolidate interventions of the project and sustain know-how created.

Concerning the future perspective of sustainability, it was important, that the implemented activities buttressed the levels of awareness of the importance of the dam safety in the context of the development agenda. This awareness went hand in hand with a growing understanding of this concept, and its practical application, and resulted in several initiatives for scaling up and institutionalizing this approach. These trends indicate that stakeholders of the recipient countries own the outcomes of the Project to a fair degree. Moreover, active involvement of GIZ in the project activities triggered a recent decision that GIZ would continue funding capacity development activities on dam safety in Central Asia in its new project.

Sustainability of the project's result was reinforced by a rather stable selection of experts participating in the regional meetings and capacity building events. The only exception was Turkmenistan. The representatives of this country did not participate in the meetings and seminars regularly.

Overall, the approach and methods for enhancing capacity building on dam safety developed by the project can be applied and replicated in other countries of the UNECE region or in other regions. This opinion was often expressed during the interviews with the international organizations that were actively involved in the project activities as stakeholders.

In spite of a complicated process related to the development and implementation of legal, regulatory and technical frameworks, the overall degree of the project sustainability was judged **as high**.

## VII. Conclusions

The evaluation process was inclusive and participatory, engaging stakeholders from the national authorities of the beneficiary countries, partners from international organizations, consultants and UNECE. Based on findings presented in the previous chapter the following conclusions were drawn up by the evaluation exercise:

1. **The evaluation activities elicited interesting findings, conclusions and attendant recommendations which should help improve the design and quality of implementation of future projects addressing capacity building for dam safety.**
2. **The evaluation was carried out as per the methodology outlined above. In spite the Covid-19 pandemic the approach was inclusive and participatory, engaging stakeholders from both the beneficiary countries and international partners.**
3. **The activities implemented in the framework of the 3<sup>rd</sup> phase of the project have consolidated the results achieved in its previous phases in improving inter-state cooperation on dam safety in Central Asia and encouraging the process of development of up-to-date legal, regulatory and technical frameworks on dam safety in several countries.**
4. **Overall, the capacity building for cooperation on dam safety has been successful and impacted positively on the ongoing activities of the five countries of Central Asia in the governance addressing dam safety and bilateral cooperation. UNECE has been rated as a solid and reliable partner by implementing and development partners.**
5. **The project document did not include explicit provisions to address gender equality, vulnerable people and disabled in project activities and outcomes and therefore these issues were addressed very little.**
6. **The need to improve the safe operation of hydraulic and hydro-electric structures and to establish constructive and comprehensive cooperation in the safe operation of these structures with a focus on transboundary rivers in Central Asia persists.**
7. **The major challenge during the project implementation was lack of experience of the recipient countries in developing the regulatory and institutional frameworks for the dam safety.**
8. **Capacity development was an important element of the project, supporting national institutions to train staff, and make use of new methods and technologies.**
9. **There were important differences in methods/approaches applied by the beneficiary countries with respect to legislative/normative frameworks, documentation, as well monitoring methods regarding safety conditions of dams.**
10. **ON RELEVANCE: The relevance of the project was high. Its activities have been consistently addressing critical challenges faced by the beneficiary countries and were consistent with the program of work of UNECE in general, including the Water Convention, as well as with 2030 Agenda and other global and regional priorities. The project design and implementation were relevant for meeting its objectives. The only shortcoming was a limited attention to gender equality and to the specific needs of the most vulnerable groups of population.**
11. **ON COHERENCE: The coherence of the project in the collaboration with other entities of the UN system and other international organizations in the region, as well as in the implementation of its planned activities in the required sequence that was needed to ensure the greatest impact of the project was partial.**

12. **ON EFFECTIVENESS:** The effectiveness of the project in terms of achievement of the results (activities, outcomes, impact) expected during the project design was **partial**.
13. **ON EFFICIENCY:** The overall management of the project by UNECE was **highly** efficient. The human and financial resources allocated to the project were used wisely and commensurate to the project results.
14. **ON SUSTAINABILITY:** The products generated by the project enhanced awareness and commitments of the beneficiary countries concerning the need to address capacity building on dam safety in a consistent and sustainable manner. There is a realistic perspective that the project's investments continue to deliver benefits beyond its life time, and these efforts can be maintained and even replicated in the UNECE region or in other regions. The sustainability degree was **high**.

## VIII. Recommendations

1. Depending on available funding UNECE to continue supporting national and regional capacities on hydraulic and hydro-electric structures and cooperation on dam safety, in close cooperation with relevant global and regional organizations, and donors.
2. UNECE Secretariat to present the findings of this review to the Committee on Environmental Policy to continue promoting dam safety awareness across all government agencies and among general public.
3. During the future similar project designs UNECE should include explicit provisions to address gender equality, vulnerable people and disabled in project activities, outcomes, as well as reporting. One of the directions could be to make a study/assessment of how gender roles, as well as situation of vulnerable/disabled people could be influenced by displacement and environmental migration as a consequence of a major dam accident. National crisis management agencies should be actively integrated in these efforts.
4. To address some of the project design related shortcomings, encountered during the evaluation, UNECE should consider the following in the future project design:
  - Develop a comprehensive overall project design concept that links inputs, activities, outputs and results/outcomes with the overall objective(s) and aspirations that set the scene for project activities
  - Include appropriate monitoring & evaluation provisions, including baseline information, realistic indicators of success and targets that support both clear reporting and project management.
5. In the future projects UNECE should systematically assess, monitor and document the usefulness and expected impact of the capacity development workshops by canvassing feedback from the participants through a well-tailored questionnaires, quiz approach application and internet based tools as e.g. Survey Monkey. These assessments should include a space for qualitative comments and improvement proposals by participants.
6. For the purposes of sustainability in development of legal, regulatory and technical frameworks on dam safety in Central Asia, UNECE should maintain frequent engagement with Governments and other partners through, but not limited to, advisory missions..

## **IX. Annexes**

- 1. Annex 1: TOR for the evaluation of the project**
- 2. Annex 2: List of documents reviewed**
- 3. Annex 3: List of the stakeholders interviewed and /or contacted by electronic survey**
- 4. Annex 4 : Project document**
- 5. Annex 5 : Uzbekistan draft law on “Safety of Hydraulic Structures”, 2021**
- 6. Annex 6: Electronic questionnaire in English**
- 7. Annex 7 : Electronic questionnaire in Russian**
- 8. Annex 8 : Pictures of dams in Central Asia**

### **Acknowledgement:**

I would like to thank the representatives of the five Central Asia countries, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan for their support of this evaluation work, which enabled the production of the evaluation report.

I would also like to thank for the similar support and cooperation the following organizations: UNECE PMU, UNECE Project Manager, UNECE Former Project Manager, GIZ Uzbekistan, IFAS Uzbekistan, OSCE Tajikistan, IWAC Kazakhstan, VVB Slovakia.

DUSAN ZUPKA, Project/Program Evaluator



## **TERMS OF REFERENCE**

### **Capacity-building for cooperation on dam safety in Central Asia (phase 3)**

#### **I. Purpose**

The primary purpose of the evaluation is to assess the extent to which the objectives of the project “Capacity-building for cooperation on dam safety in Central Asia (phase 3)” (hereinafter “Project”) were achieved. The evaluation will assess the relevance, coherence, effectiveness, efficiency, and sustainability of the project in supporting member States to cooperate on dam safety in Central Asia. The evaluation will also assess progresses on human rights, gender equality results, and disability inclusion in the context of this project.

The results of the evaluation will allow improving services provided to member States through regular technical cooperation as well as for the discussion with donors and partner organizations for any future work by UNECE in the Central Asia region and beyond.

#### **II. Scope**

The evaluation will cover the entire period of the project, starting from September 2017 to June 2020, and its extension to December 2020. All beneficiary countries of this project (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) will be included in this evaluation.

The universally recognized values and principles of human rights and gender equality need to be integrated at all stages of an evaluation, in compliance with the United Nations Evaluation Group’s revised gender-related norms and standards.

Therefore, the evaluation will assess how gender considerations were included in the process and it will make recommendations on how gender can be included better in the process.

#### **III. Background**

The hydraulic facilities play an important role for the economies of Central Asia. However, concern over the safety of these facilities, located mostly on transboundary rivers, has grown significantly in recent years. Ageing dams and their inadequate maintenance coupled with growing demand in irrigation have resulted in increased risks leading to disastrous consequences often damaging property, environment and even causing human casualties. Central Asian countries presently lack adequate institutional and legal frameworks for the safe management of dams.

The objective of the project was to strengthen national and regional capacities of Central Asian countries for development and implementation of the institutional, regulatory and

technical frameworks for dam safety. The project was implemented by UNECE and was supported by 1 RB (P3) post located in Environment Division

The project supported the expected accomplishments (a) "Improved response to environmental challenges by ECE constituencies" of the Subprogramme 1 "Environment" of the Strategic Framework for 2016-2017 and 2018-2019.<sup>1</sup> Participating countries requested a continuation of support for dam safety activities in the latest regional meeting in Almaty 1-2 March 2017. The dam safety work is part of the Programme of Work of the UNECE Water Convention, as well as the SPECA Working Group on Energy and Water, and has been developed to respond to the official requests from the beneficiary countries.

UNECE regularly supports the beneficiary countries through workshops and advisory services. This project builds on previous phases of the project. Launched in 2006, the project was the first of its nature that initiated a regional dialogue among the Central Asian states on dam safety enabling countries to discuss existing problems and highlighted the need to improve the management of dams. The earlier phases of the project included the following areas: building institutional and human capacities of the national dam safety authorities; improving national regulatory and institutional frameworks for dam safety; setting up the regional cooperative framework on dam safety; improving the monitoring and early warning systems. More details of the results of earlier phases of the project could be obtained [here](#).

The project was expected to deliver on three specific results:

1. Improved inter-state cooperation on dam safety in Central Asia.
2. Improved national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety in Central Asia;
3. Improved safety and transboundary cooperation on individual dams

The budget of the project is USD 302,840 and was entirely financed the Russian Federation.

#### **IV. Issues**

The evaluation criteria are relevance, coherence, efficiency, effectiveness, impact and sustainability:

##### Relevance:

1. To what extent was the project consistent with the 2030 Agenda and other global and regional priorities and the programme of work of the UNECE, including the Water Convention?
2. To what extent did the project respond to the priorities and needs of the beneficiary countries?
3. To what extent was the project focused on the most vulnerable? Was disability inclusion mainstreamed at all stages of the project cycle? Did UNECE advocate for gender equality in this area of work?
4. How relevant was the project's design and implementation appropriate for meeting the project's objectives?

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<sup>1</sup> A/69/6/Rev.1 : <https://undocs.org/A/69/6/Rev.1> and A/71/6/Rev.1 : <https://undocs.org/en/A/71/6/Rev.1>

Coherence:

5. How coherent was the collaboration with other entities in the UN system and other international organizations in the region?
6. Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?

Effectiveness:

7. Did the project achieve the results expected during the project design in terms of the planned activities, outcome, and impact?
8. What were the challenges/ obstacles to achieving the activities objective and expected accomplishments?

Efficiency:

11. Were the human and financial resources allocated to the project used efficiently and commensurate to the project results?
12. Were the resources (financial and human) appropriate to the design of the project?

Sustainability:

15. To what extent the products developed through this activity can be maintained and implemented? Could the activity be replicated in the UNECE region or in other regions?
16. To what degree the project influenced the practices of beneficiary countries to further pursue cooperation to improve the safe management of dams in the region?

## **V. Methodology**

The evaluation will be conducted based on:

1. Desk study of project materials: all relevant project documents, including project descriptions, reports, publications, workshop agendas, list of participants for workshops, etc... and other information will be provided to the evaluator.
2. Interviews with key stakeholders (via telephone or skype) including: relevant Government officials in the beneficiary countries, national agencies responsible for the management of hydrotechnical installations, project consultants, participants of project workshops, Central Asian Regional Environmental Center, OSCE Centers in Dushanbe and Nur-Sultan, GIZ Office in Tashkent, Vodospadarskya Vystavba (dam safety agency of the Slovak Republic), and other relevant stakeholders (final list of contacts and details to be provided by the project manager).
3. An electronic survey of internal and external stakeholders, in English and Russian, will be developed by the consultant to assess the perspective of main stakeholders; results of the survey will be disaggregated by gender.

UNECE will provide all documentation, support and guidance to the evaluation consultant as



needed throughout the timeline of the evaluation.

The evaluation will be conducted in accordance with the ECE Evaluation Policy. A gender-responsive methodology, methods and tools, and data techniques are selected. The evaluation findings, conclusions and recommendations reflect a gender analysis.

The methodology should finally comply with the OIOS COVID-19 Response Evaluation Protocol<sup>2</sup>.

The evaluation report of maximum 20 pages will summarize findings, conclusions and recommendations of the evaluation. An executive summary (max. 2 pages) will summarize the methodology of the evaluation, key findings, conclusions and recommendations.

## **VI. Evaluation Schedule**

- A. Preliminary research – by 30 April
- B. Data Collection – by 31 May
- C. Data Analysis– by 30 June
- D. Draft Report (include timing for review) – by 15 July
- E. Final Report – 30 July

*Comment: Final timetable to be agreed following engagement of the evaluator. The timing above is indicative.*

## **VII. Resources**

The resources available for this evaluation are USD \$6,000 (inclusive of all costs). This amount will be paid to a hired external evaluation consultant identified through the UNECE evaluation roster upon satisfactory delivery of work by 1 August 2021.

The consultant will be managed by the UNECE Project Manager – Batyr Hajiyev (P-3) – who will provide support by ensuring the provision of all necessary documentation needed for the desk review, guiding the evaluator on the recipients for the questionnaire and for follow-up interviews, as well as by ensuring communication with the evaluator during the evaluation period.

The UNECE Programme Management Unit will provide guidance to the project manager and the evaluator, as needed on the evaluation design, methodology for the evaluation, and for quality assurance of the draft report

## **VIII. Intended Use/Next Steps**

Findings of this evaluation will be used to:

- improve direct project's follow up actions, implementation of products by project beneficiaries and dissemination of the knowledge created through the project;

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<sup>2</sup> <http://www.unevaluation.org/evaluation/reports/detail/15890>

- assess the gaps and further needs of countries in the area of this project;
- formulate a tailored capacity building projects in extension of this activity;
- induce new project ideas, improving the planning and design of future capacity building activities and projects on water cooperation in the UNECE region.

A management response to the evaluation will be prepared by ECE, and relevant recommendations implemented as scheduled in the management response. Progress on implementation of recommendations will be available on the ECE public website.

## **IX. Criteria for Evaluators**

Evaluators should have:

- An advanced university degree or equivalent background in relevant disciplines
- Specialized training in areas such as evaluation, project management, social statistics, advanced statistical research and analysis.
- Demonstrated relevant professional experience in design, management and conduct of evaluation processes with multiple stakeholders, survey design and implementation, and project planning, monitoring and management, gender analysis and human rights due diligence
- Demonstrated methodological knowledge of evaluations, including quantitative and qualitative data collection and analysis for end-of-cycle project evaluations.
- Fluent in written and spoken English and Russian.
- Previous experience in similar activities in Central Asia is highly desirable

Evaluators should declare any conflict of interest to UNECE before embarking on an evaluation project, and at any point where such conflict occurs.

**EXTERNAL EVALUATION  
OF THE UNECE PROJECT “CAPACITY BUILDING FOR COOPERATION ON  
DAM SAFETY IN CENTRAL ASIA/PHASE 3”(further Project)**

**Annex 2 : List of reviewed documents**

1. Terms of reference for the external evaluation of the UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3)
2. UNECE Technical cooperation project form concerning the UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3)-English version
3. UNECE Technical cooperation project form concerning the UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3)-Russian version
4. UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3) -Annual implementation report 2017-2018
5. UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3) -Annual implementation report 2019
6. UNECE Project “Capacity Building for Cooperation on Dam Safety in Central Asia (Phase 3) -Annual implementation report 2020
7. DRAFT AGREEMENT between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic, the Government of the Republic of Tajikistan, the Cabinet of Ministers of Turkmenistan and the Government of the Republic of Uzbekistan on cooperation in the field of safety of hydraulic structures, 24 September 2009 – Russian version
8. Letter from the Russian Federation Permanent Mission in Geneva sent on 01.04.2020 to UNECE with approval to extend the project till 31.12.2020
9. Email from the Russian Federation Permanent Mission in Geneva sent on 10.08.2020 to UNECE with approval to extend the project till 30.06.2021
10. Evaluation report of the 2<sup>nd</sup> phase of the project,  
[https://unece.org/DAM/OPEN\\_UNECE/03\\_Evaluation\\_and\\_Audit/Dam\\_Safety\\_Final\\_Evaluation\\_Report.pdf](https://unece.org/DAM/OPEN_UNECE/03_Evaluation_and_Audit/Dam_Safety_Final_Evaluation_Report.pdf)
11. Evaluation report of the 1<sup>st</sup> phase of the project,  
[https://unece.org/DAM/env/water/damsafety\\_doc\\_nov/Evaluation\\_of\\_ENVSEC\\_November\\_2010.pdf](https://unece.org/DAM/env/water/damsafety_doc_nov/Evaluation_of_ENVSEC_November_2010.pdf) (please note back that the project was part of the larger Environment and Security Initiative)
12. UNECE Water convention, [https://unece.org/DAM/env/water/publications/WAT\\_Text/ECE\\_MP.WAT\\_41.pdf](https://unece.org/DAM/env/water/publications/WAT_Text/ECE_MP.WAT_41.pdf)
13. UNECE Protocol on Water and Health, <https://unece.org/DAM/env/documents/2000/wat/mp.wat.2000.1.e.pdf>
14. UNECE website “Capacity building for cooperation on dam safety in Central Asia”,  
<https://unece.org/environment-policy/water/areas-work-convention/projects-central-asia/capacity-building-cooperation-dam-safety-central-asia>
15. Terms of Reference of four consultancies of Mr. ERKIN OROLBAEV | 2018, 2019, 2020 and 2021
16. Terms of Reference of five consultancies of Messrs. SHUKHRAT TALIPOV, MARAT NARBAEV, BATYR MAMEDOV and VLADIMIR PIMENOV in 2021
17. Press release on dam safety seminar and study tour in the Slovak Republic
18. The UN Special program for the economies in Central Asia, SPECA, <https://unece.org/speca>
19. The SPECA Working Group on Water, Energy and Environment, <https://unece.org/wg-on-wee>
20. Draft agenda for Online meeting on Dam Safety Cooperation in Central Asia, 23 June 2021
21. Draft Dam Safety Review “SAFETY OF HYDRAULIC STRUCTURES IN CENTRAL ASIA: CAPACITY BUILDING AND REGIONAL COOPERATION”, of 8 June 2021
22. Overview of activities to ensure the safety of hydraulic structures in Kazakhstan, paper presented during the seminar in May 2018 in Almaty
23. UNECE web site “Key information about the 3<sup>rd</sup> phase of the project”,  
[https://unece.org/env/water/damsafety\\_third\\_phase](https://unece.org/env/water/damsafety_third_phase)
24. Report on a round table on improving the regulatory and institutional framework for ensuring the safety of hydraulic structures in Kyrgyzstan Issyk-Kul, Kyrgyzstan, September 10, 2019
25. Paper “Department for Control and Supervision of Water Resources and Facilities in Kyrgyzstan” 2019
26. Overview of ensuring the safety of hydraulic structures in Kyrgyzstan, 2018
27. Report of the workshop to discuss the results of the expert assessment and recommendations for the development of Kazakhstan's legislation on the safety of hydraulic structures held on September 7, 2017

28. UNECE report from the online meeting on Cooperation on dam security in Central Asia. 15 June 2020
29. Draft UNECE report on “Safety of hydraulic structures in Central Asia: Capacity building and regional cooperation”, June 2021
30. UNECE publication “Methods for the conservation and liquidation of hydraulic structures”, 2018
31. Report from the Regional meeting on cooperation on dam safety in Central Asia, Almaty, 1-2 March 2017
32. Report from the Regional meeting on cooperation on dam safety in Central Asia, Almaty, 30-31 May 2018
33. Report from the Regional meeting on cooperation on dam safety in Central Asia, Almaty, Tashkent, 2-3 May 2019
34. Report from the project round table on improvement of the national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety, ISYK KUL, Kyrgyzstan, 10 September 2019
35. Overview of activities to ensure the safety of hydraulic structures in Tajikistan - Paper presented during the project regional meeting in Almaty, May 2018
36. Report from the training seminar “Building capacity of national experts on safety of dams”, TARAZ City, Kazakhstan, 16-18 October, 2018
37. Report from the seminar “Exchange of experience on dam safety”, Bratislava, Slovakia, 7-11 October 2019
38. Report from the seminar “Improvement of knowledge on dam safety”, NUREK, Tajikistan, 2-4 October, 2018
39. Standards for visual inspection of dams in Uzbekistan, draft in work 2021
40. PROGRAM FOR THE DEVELOPMENT OF COOPERATION between the State Inspectorate "GOSVODKHOZNADZOR" under the Ministry of Water Resources of the Republic of Uzbekistan and Service for State Supervision in the field of safety of Hydraulic Structures under the Ministry of Energy and Water Resources of the Republic of Tajikistan for 2019-2021
41. The draft law of the Republic of Uzbekistan “On the safety of hydraulic structures”, 2021  
CONSERVATION AND LIQUIDATION OF HYDRAULIC STRUCTURES IN UZBEKISTAN  
Standards and requirements, TS OKTTC-055:2020

**ANNEX 3 : LIST OF STAKEHOLDERS RECOMMENDED BY UNECE - CONTACTED=C,  
PARTICIPATING IN SURVEY=S, AND/OR PARTICIPATING IN INTERVIEW=I**

<b>KAZAKHSTAN</b>		
1.	<b>Tursun Ibrayev</b> Chief Scientific Secretary of the Kazakh Scientific Research Institute of Water Management (International Dam Safety Training Center, Taraz Kazakhstan)	C
2.	<b>Marat Narbayev</b> Deputy Director of the Executive Board of IFAS in Kazakhstan (national coordinator)	C, S, I
<b>KYRGYZSTAN</b>		
3.	<b>Abdybai Djailobaev</b> Deputy director State Agency of Water Resources (national coordinator)	C, S
4.	<b>Erkin Orolbaev</b> Consultant UNECE	C, S, I
<b>TAJIKISTAN</b>		
5.	<b>Madamon Zamonzoda</b> Head of the Services on state control in the sphere of dam safety (national coordinator)	C, S, I
6.	<b>Ali Fazilov</b> Head of the Laboratory "Water Resources and Hydrophysical Processes" of the Academy of Sciences	C
<b>UZBEKISTAN</b>		
7.	<b>Zafar Irisboyev</b> Deputy Chief of the State Inspectorate "Gosvodkhoznadzor" under the Ministry of Water Resources	C, S
8.	<b>Shukhrat Talipov</b> Head of Deptment of "Uzbekhidroenergo" (national expert)	C, S, I
9.	<b>Vadim Sokolov</b> Head of Agency of IFAS for Aral Sea Program and GEF Projects, Uzbekistan	C, S, I
<b>RUSSIA</b>		
10.	<b>Vladimir Pimenov</b> Head of department Rostekhnadzor (Environmental, Industrial and Nuclear Supervision Agency, Russian Federation)	C, S
<b>SLOVAKIA</b>		
11.	<b>Peter Panenka</b> Division of Technical-Safety Supervision, Dam Safety Department Vodohospodarska Vystavba	C, S, I
12.	<b>Boris Minárik</b> Consultant, former Director of IWAC (Bratislava)	C, S, I
<b>INTERNATIONAL ORGANIZATIONS</b>		
<b>OSCE</b>		
13.	<b>Kai Wegerich</b> Water and Energy Policy Adviser OSCE Tajikistan	C, S
14.	<b>Yerlen Badykhan</b> OSCE Kazakhstan	C, S, I
15.	<b>Bibigul Izbair</b> OSCE Kazakhstan	C, S
<b>GIZ</b>		

16.	<b>Caroline Milow</b> Programme Director Transboundary Water Management in Central Asia Programme	C,S,I
	<b>International Water Assessment Center</b>	
17.	<b>Zhanar Mautanova</b> Deputy Director	C, S, I
	<b>UNECE</b>	
18.	<b>Bocarl Libert</b> UNECE, Former project manager	C, I
19.	<b>Batyr Hajiyeu</b> UNECE, project manager	C, S, I

## Annex 4: Project document

**UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE**  
**TECHNICAL COOPERATION PROJECT FORM**  
**PART I. Planning**

<b>1. Project title and project number:</b> Capacity-building for cooperation on dam safety in Central Asia (phase 3)						
<b>2. Expected timing/ duration:</b> 1 September 2017 – 30 June 2020						
<b>3. Objective and brief summary of the project:</b> The objective of the project is to strengthen national and regional capacities of Central Asian countries for development and implementation of the institutional, regulatory and technical frameworks for dam safety. The project will continue the work with the countries in Central Asia, building on previous phases of the project, to improve the safety of dams by contributing to: <ul style="list-style-type: none"> <li>• Legislation and institutions at the national level</li> <li>• Training on the safe operation of hydrotechnical installations</li> <li>• Regional and transboundary cooperation</li> <li>• Safer operations of individual dams</li> </ul> The objective of the project will be achieved through the following activities: A1.1. Organisation of three annual regional meeting for exchange of information and development of interstate cooperation; A2.1. Support to drafting by consultants of national legislation and organization of two roundtables/seminars to discuss draft legislation; A2.2. Organisation of two regional capacity building events to “train the trainers” on dam safety; A3.1. Development and show-casing of the dam technical solutions for transboundary safety monitoring.						
<b>4. Expected results of the project:</b> EA1. Improved inter-state cooperation on dam safety in Central Asia EA2. Improved national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety in Central Asia EA3. Improved safety and transboundary cooperation on individual dams						
<b>5. Target group and beneficiaries of the project:</b> Main target groups are national institutions in CA countries responsible for the safety of hydro-technical installations (Committee for water resources, Ministry of Environment and Water Resources, Kazakhstan; State Committee for Water Management and Melioration, Kyrgyzstan; Ministry of Energy and Water Resources and State Service on the Supervision in the Field of Safety of Hydraulic Constructions, Tajikistan; Ministry of Agriculture and Water Resources, Turkmenistan; Water Control Facilities Committee “Gozvodkhoznadzor”, Uzbekistan). Beneficiary countries are Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.						
<b>6. Justification of project and its relationship to the programme of work:</b> The project is directly linked to the Expected Accomplishment (a) “Improved response to environmental challenges by ECE constituencies” of the Subprogramme 1 “Environment” of the proposed Strategic Framework for 2016-2017 and 2018-2019. Participating countries requested a continuation of support for dam safety activities in the latest regional meeting in Almaty 1-2 March 2017. The dam safety work is part of the Programme of Work of the UNECE Water Convention, as well as the SPECA Working Group on Energy and Water, and has been developed to respond to the official requests from the beneficiary countries.						
<b>7. Estimated UN regular budget resources (work months of RB staff/level of Staff):</b> 2 months of P5/Regional Advisor and 2 month of P3 (ECE-ESCAP office in Almaty)						
<b>8. Estimated extra budgetary resources:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">Donor</th> <th style="text-align: center;">Amount (US\$)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Russian Federation</td> <td style="text-align: center;">302,840 US\$</td> </tr> </tbody> </table>			Donor	Amount (US\$)	Russian Federation	302,840 US\$
Donor	Amount (US\$)					
Russian Federation	302,840 US\$					
<b>9. Project Manager:</b> Sarangoo Radnaaragchaa <div style="text-align: right;">23.05.2017</div>	<b>10. Section/Division:</b> Environment					
<b>11. Cleared by Programme Management Unit:</b> Catherine Haswell <b>Director (O/C) of PMU</b> 23.05.2017	<b>12. Approved by EXCOM<sup>1</sup></b>	<b>23.06.2017</b>				

<sup>1</sup> See paragraph 31 (a) of Commission decision A(65).

**Annex**  
**Results-based budget for the extrabudgetary project**

<b>Part I. Planning</b> (to be filled in before submission to EXCOM)			<b>Part II. Implementation</b> (to be used for reporting on progress in the implementation of the project in real time) <sup>1,2</sup>	
<b>Expected accomplishments</b>	<b>Planned activities</b>	<b>Estimated costs (US\$)</b>	<b>Implemented activities<sup>3</sup></b>	<b>Actual expenditures<sup>4</sup> (US\$)</b>
E.A.1. Improved inter-state cooperation on dam safety in Central Asia	A.1.1. Organisation of three annual regional meeting for exchange of information and development of interstate cooperation P3 staff to support implementation of the project x \$12,000 x 1 month 1 International consultant x 2 work month x \$3,000; 1 National Consultant x 2 work month x \$1,000 1 mission of international consultant x \$2,500 per mission 2 missions of 1 staff x \$3,000 per mission Contractual services for the organization of three regional meetings (10 participants x 3 meeting x \$1,000 per participant )	<b>58,500</b>  12,000 6,000 2,000 2,500 6,000 30,000		
	E.A.2. Improved national capacities in development and implementation of legal, regulatory and technical frameworks on dam safety in Central Asia	A.2.1. Support to drafting by consultants of national legislation and organization of two roundtables/seminars to discuss draft legislation P3 staff to support implementation of the project x \$12,00 x 1 month 1 International consultant x 2 work month x \$3,000 1 National Consultant x 2 work month x \$1,000 1 mission of international consultant x 2,500 per mission Contractual services for the organization of two national meetings (40 participants x 2 meetings x \$500 per participant )	<b>62,500</b>  12,000 6,000 2,000 2,500 40,000	
	A.2.2. Organisation of two regional capacity building events to “train the trainers” on dam safety P3 staff to support implementation of the project x \$12,000 x 1 month 1 International consultant x 2 work month x \$3,000; 1 National Consultant x 2 work month x \$1,000 Travel of consultant 2 missions of international consultant x \$2,250 per mission 2 missions of 1 staff x \$3,000 per mission Contractual services for organization of two trainings (20 participants x 2 trainings x \$1,000 each participant)	<b>70,500</b>  12,000 6,000 2,000 4,500 6,000 40,000		

<sup>1</sup> The secretariat shall inform EXCOM in case of unexpected developments or serious problems of any kind in the project implementation.

<sup>2</sup> Questions from member States on project implementation will be forwarded to the secretariat.

<sup>3</sup> Relevant information should be uploaded by the project manager on the Project Monitoring Tool within one month from the end of the activity and include the following:

(a) *For an advisory service* (including at a workshop/seminar/training organized by other organizations): title; venue; dates; project expenditures; and hyperlink(s) to presentation(s) and other relevant documents;

(b) *For a workshop/conference/training* organized by UNECE: title; venue; dates; project expenditures; and hyperlinks to the meeting agenda, list of participants, presentation(s) made by UNECE, conference documents, training materials and reports;

(c) *For a consultancy*: project expenditures; hyperlinks to the consultancy ToR and main outputs (study, report, training material, presentation, etc.) produced by the consultant/s;

(d) For other outputs not included under bullet points above: hyperlink to relevant documents.

<sup>4</sup> Relevant financial information – certified by the Executive Office - should be uploaded by the project manager on the Project Monitoring Tool within one month from the end of the activity.



E.A.3. Improved safety and transboundary cooperation on individual dams	A.3.1. Development and showcasing of the dam technical solutions for transboundary safety monitoring Staff and personnel costs: P3 staff to support implementation of the project x \$12,000 x 1 month 1 International consultant x 2 work month x \$3,000; 1 National Consultant x 2 work month x \$1,000 1 mission of international consultant x 2,500 per mission 2 missions of national Consultant x \$1,000 per mission 2 missions of 1 staff x \$3,000 per mission Equipment for a safety monitoring system in Kirov dam Contractual services for two meetings (10 participants x 2 meetings x \$1,000 each participant)	<b>70,500</b>  12,000 6,000 2,000 2,500 2,000 6,000 20,000 20,000		
Budget summary	262,000			
Project evaluation	6,000			
13% of Programme Support Costs	34,840			
<b>Total</b>	<b>302,840</b>	<b>Total:</b>		

# **The Law of the Republic of Uzbekistan**

## **“On the safety of hydraulic structures”**

### **Chapter 1. General Provisions**

#### **Article 1. Purpose of this Law**

The purpose of this Law is to regulate relations arising during the design, construction, commissioning, operation, reconstruction, repair, conservation and liquidation of hydraulic structures while taking measures to ensure their safety and reliable operation.

#### **Article 2. Legislation on the safety of hydraulic structures**

The legislation on the safety of hydraulic structures consists of this Law and other legislative acts.

Legal regulation of relations in the field of safety of hydraulic structures in the Republic of Karakalpakstan is also carried out by the legislation of the Republic of Karakalpakstan.

If an international treaty of the Republic of Uzbekistan establishes rules other than those provided for by the legislation of the Republic of Uzbekistan on the safety of hydraulic structures, then the rules of the international treaty are applied.

#### **Article 3. Basic definitions**

The following basic concepts apply in this Law:

**hydraulic structures** – reservoirs and mudflow reservoirs, their structures (dams, buildings of hydroelectric power stations, water-collecting, water-discharging facilities, culverts and water outlets and other structures), water control structures, structures of rivers and a stream intended for a collecting, discharging of water, protecting banks, irrigation systems, watering and drainage networks, their structures, pumping stations, structures enclosing storage facilities for liquid waste of industrial and agricultural organizations and other water bodies;

**operating organization** – an institution and an organization on the balance sheet of which a hydraulic structure is located and has the right to use it;

**emergency situation** – an accident, catastrophe, dangerous natural disaster, natural hazard or other phenomenon that occurred in a certain area, which may or has entailed human casualties, damage to human health or the environment, significant material losses and disruption of the living conditions of people;

**safety of hydraulic structures** – the state of hydraulic structures, which makes it possible to protect the life, health and legitimate interests of people, the

environment and economic facilities, and to ensure the operability of hydraulic structures;

**cadastre of hydraulic structures** – a systematized set of information and documents containing information about the natural conditions of the object, location, technical, qualitative and quantitative characteristics, as well as other information about the operating organization;

**safety declaration of a hydraulic structure** – a document substantiating the safety of a hydraulic structure and containing measures to ensure its safety;

**safety criteria for a hydraulic structure** – the limiting values of quantitative and qualitative indicators of the state of a hydraulic structure and the conditions of its operation, corresponding to the permissible level of risk of an accident at a hydraulic structure;

**permissible level of risk of an accident of a hydraulic structure** – the value of the risk of an accident of a hydraulic structure, established by regulatory documents.

**safety rules for hydraulic structures** – a unified technical normative document of a set of technical requirements and standard indicators for hydraulic structures, their bases, properties of materials of structures and underlying materials, as well as loads acting on structures during design, construction, commissioning, operation, reconstruction, restoration, conservation and liquidation of hydraulic structures;

**accident of a hydraulic structure** – the occurrence of emergency situations as a result of partial or complete failure of a hydraulic structure, failure of equipment or other technical devices;

**risk of an accident at a hydraulic structure** – an indicator characterizing the likelihood of an accident at a hydraulic structure and its consequences for the health and life of people, property and the environment.

**ensuring the safety of hydraulic structures** – development and implementation of a complex of engineering, organizational and other measures aimed at preventing accidents at hydraulic structures;

**conservation of hydraulic structures** – a complex of design and construction work carried out for the purpose of temporary maintenance of hydraulic structures and regulation of the water regime, aimed at ensuring its safety in the conditions of transit water flows, as well as organizational and technical measures to ensure the use of structures after conservation;

**liquidation of hydraulic structures** – ensuring safety due to the demolition of a hydraulic structure and restoration of the natural water regime of a reservoir, a complex of design and construction work related to the preservation of its elements and the fact that they will not interfere during a possible flood, if after the liquidation of a hydraulic structure it becomes necessary to use it for other purposes.

## **Chapter 2. Regulation of safety in hydraulic structures**

### **Article 4. The main directions of state policy in the field of safety of hydraulic structures**

The main directions of state policy in the field of safety of hydraulic structures are:

ensuring safety during the design, construction, commissioning, operation, reconstruction, repair, remodeling, restoration, conservation and completion of hydraulic structures;

development and implementation of state programs to ensure the safety of hydraulic structures;

development and implementation of comprehensive measures for the prevention and elimination of major accidents, catastrophes and accidents at hydraulic structures;

state control over the safety of hydraulic structures;

development of research works and their integration with industrial practice;

training, retraining and advanced training of personnel in the field of safety of hydraulic structures;

development of measures to ensure the safety of hydraulic structures in accordance with international requirements;

development of international cooperation.

### **Article 5. Powers of the Cabinet of Ministers of the Republic of Uzbekistan in the field of safety of hydraulic structures**

The Cabinet of Ministers of the Republic of Uzbekistan:

coordinates and directs the work of state and economic management bodies in the field of safety of hydraulic structures, ensures control over their activities in the manner prescribed by law;

ensures the safety of state-owned hydraulic structures, as well as the safety of hydraulic structures of enterprises that are part of the republican and regional energy system;

develops and implements state programs for ensuring the safety of hydraulic structures;

organizes state supervision over the safety of hydraulic structures;

organizes international cooperation to ensure the safety of hydraulic structures;

determines a dedicated government agency exercising state control over the safety of hydraulic structures in accordance with the established procedure;

exercises other powers in accordance with the legislation.

## **Article 6. Powers of the dedicated government agency in the field of safety of hydraulic structures**

The State Inspectorate for Control and Supervision over the Technical Condition and Safety of Operation of Large and Especially Important Water Facilities under the Ministry of Water Resources of the Republic of Uzbekistan is a dedicated government agency (hereinafter referred to as a dedicated government agency).

The dedicated government agency:

implements a unified state policy in the field of safety of hydraulic structures;

exercises state control over the safety of hydraulic structures;

has unhindered access to hydraulic structures, gets acquainted with the materials on the organization of technical control over their safety and reliability, their protection and the establishment of buffer zones and coastal areas;

involves the operating and the relevant design and contracting organizations, as well as specialists from relevant ministries and departments in the implementation of state control over the safety of hydraulic structures;

participates in the activities of international organizations within its competence.

The dedicated government agency may exercise other powers in accordance with the legislation.

## **Article 7. Powers of local government bodies in the field of safety of hydraulic structures**

Local government bodies:

participate in the implementation of state programs in the field of ensuring the safety of hydraulic structures;

ensure the safety of hydraulic structures in the use of water resources and the implementation of environmental protection measures;

make decisions in accordance with the procedure established by legislation on the placement of hydraulic structures, as well as on limiting their operation in cases of violations of legislation on the safety of hydraulic structures;

participate in the elimination of the consequences of accidents at hydraulic structures;

inform the population about the threat of accidents at hydraulic structures that may lead to emergencies;

makes the appropriate decisions on the designation and delimitation of water protection and coastal zones of hydraulic structures of district and regional significance, as well as territories of sanitary-secured areas and sanitary protected zones;

exercise other powers in accordance with the legislation.

### **Article 8. State control over the safety of hydraulic structures**

The dedicated government agency:

controls the safety and reliable operation of hydraulic structures, as well as the compliance of the security organization with the safety declarations;

issues instructions on ensuring the safety of hydraulic structures, as well as makes proposals on the suspension and termination of licenses for the design, construction and operation of hydraulic structures related to high-risk facilities in cases of gross violation of the safety standards and rules for hydraulic structures;

participates in the development and implementation of comprehensive measures to reduce their negative impact on the population and sectors of the economy in emergency situations;

participates in the placement of hydraulic structures, the coordination of design assignments, as well as in the coordination of the rules for the operation of hydraulic structures;

controls the quality of construction and reconstruction of hydraulic structures and participates in their acceptance into operation, conservation and liquidation in accordance with the established procedure and gives appropriate conclusions;

exercises control over the organization of protection of hydraulic structures;

develops rules and criteria for the safety of hydraulic structures;

approves the safety declaration for hydraulic structures and establishes additional requirements for its content and method of preparation;

agrees on the use of the territories of hydraulic structures, river beds and adjacent territories below and above the dam (except for the provision of land plots in water protection zones) for the implementation of economic or other activities;

participates in the training of personnel for the safety of hydraulic structures, training of managers;

prohibits or restricts the activities of organizations operating water facilities or conducting economic or other activities in river beds and in the adjacent territories below and above the dam, if such activity may have a negative impact on the safety of hydraulic structures. The prohibition and limitation of the activities of business entities is carried out in a judicial proceeding, except for cases of limitation of activities for a period of not more than ten working days in connection with the prevention of emergencies, epidemics and other real threats to the life and health of the population;

exercises other powers in accordance with the legislation.

The instructions of the dedicated government agency on ensuring the safety of hydraulic structures are mandatory for the operating organizations.

### **Article 9. Cadastre of hydraulic structures**

State hydraulic structures, as well as hydraulic structures of organizations of republican and regional water management and energy systems are the object of the cadastre.

Hydraulic structures are entered into the Cadastre of hydraulic structures of the Republic of Uzbekistan (hereinafter referred to as the Cadastre).

The procedure for maintaining the Cadastre is established by the Cabinet of Ministers of the Republic of Uzbekistan.

### **Chapter 3. Ensuring the safety of hydraulic structures**

#### **Article 10. Basic requirements for ensuring the safety of hydraulic structures**

Ensuring the safety of hydraulic structures is carried out based on the following basic requirements:

ensuring an acceptable level of risk for hydraulic structures;

periodic inspection and declaration of the safety of hydraulic structures;

continuity of operation of hydraulic structures;

implementation of measures to ensure the safety of hydraulic structures, including the establishment of criteria for their safety, equipping hydraulic structures with modern equipment and constant monitoring of their condition, ensuring maintenance of hydraulic structures by workers of the required qualifications;

taking a set of measures in advance to minimize the risk of emergencies at hydraulic structures.

#### **Article 11. Obligations of the operating organization to ensure the safety of hydraulic structures**

The operating organization using a hydraulic structure is obliged:

ensure compliance with the safety standards *яқунланган ишларни* and rules of hydraulic structures during their operation, repair, reconstruction and commissioning, conservation, decommissioning and liquidation;

ensuring the delimitation of water protection and coastal zones of hydraulic structures of district and regional significance, as well as territories of sanitary-secured areas and sanitary protected zones;

ensuring control over the state of hydraulic structures, their natural and man-made impacts;

ensure safety, assess the safety of a hydraulic structure, taking into account its operation in a cascade, harmful effects as a result of economic and other activities, placement of objects in the river bed and in the adjacent territories;

ensure the development and timely refinement of safety criteria for a hydraulic structure;

application of modern information technologies in monitoring the technical condition of hydraulic structures, creating a database and ensuring operational communication;

regular analysis of the reasons for the decrease in the safety of hydraulic structures and timely develop and implement measures to ensure the technically sound state of the hydraulic structure and its safety, as well as to prevent an accident at the hydraulic structure;

ensuring regular inspection of hydraulic structures;

to create material reserves intended for liquidation of an accident of a hydraulic structure;

organization of operation of hydraulic structures and ensuring the qualifications of personnel at the required level and in accordance with the rules;

creation of an automated system for informing the population about the threat or occurrence of emergencies at hydraulic structures and ensuring its constant readiness through the creation of an automated information transmission system;

to inform the population about the safety of hydraulic structures together with local public administration authorities;

interaction with the emergency management body to prevent accidents at hydraulic structures;

equipping with modern equipment, control and measuring devices to increase the safety of operation of hydraulic structures;

immediately inform the dedicated government agency, other interested state bodies, local government bodies and self-government bodies of citizens and the population, enterprises, institutions and organizations in the zone of possible flooding about the threat of an accident of a hydraulic structure in the event of an immediate threat of a breakthrough or collapse of reservoirs and flooded dams, large hydroelectric power plants, canals, collectors and other hydraulic structures;

maintenance and improvement of working and control devices of hydraulic structures and their intended use;

development and approval of the cadastre and declaration of hydraulic structures;

assist the dedicated government agency in the exercise of its powers;

ensure the use of funds allocated for the operation of hydraulic structures, first of all, to ensure their safe and reliable operation, prevent emergencies, and eliminate the consequences of accidents at hydraulic structures.

## **Article 12. Duties of the design organization to ensure the safety of hydraulic structures**



The design organization of hydraulic structures is obliged:

implementation of construction projects, reconstruction and repair of hydraulic structures in accordance with the City Planning Code;

the use of modern equipment, building materials and technologies in design and estimate documentation;

development of rules for the use of hydraulic structures in projects for the construction, reconstruction and repair of hydraulic structures, including their use in a safe mode and, if necessary, in a cascade mode;

participation in the examination of design estimates for construction, reconstruction, repair and restoration of hydraulic structures, regardless of the form of ownership in accordance with the law;

implementation of the author's control during the implementation of projects for the construction, reconstruction and repair of hydraulic structures in the prescribed manner;

participate in the study of the technical condition of a hydraulic structure on the basis of the proposal of the operating organization and the competent state body for control over the safety of hydraulic structures and make proposals to ensure the safe and reliable operation of the structure.

### **Article 13. Obligations of the contracting organization to ensure safety during the construction of hydraulic structures**

During the construction of hydraulic structures, the contracting organization is obliged:

ensuring the safe and reliable operation of hydraulic structures in projects for the construction and reconstruction of hydraulic structures;

selection and allocation of land plots in hydraulic structures, preparation of primary permits and a construction site, organization of pre-design work, approval, examination and approval of the approved part of the project, working documentation (except for the construction of a ready-to-use facility) and tender documentation;

registration of a construction object with the state construction inspection;

technical surveying of construction and technical supervision of the construction of the facility;

timely and high-quality execution of the construction works provided for by the project in accordance with the requirements of the project;

targeted and effective use of funds allocated for the implementation of the project;

organization of object security during construction;

ensuring acceptance of finished objects for timely use in the prescribed manner;

control over the elimination of defects identified during the warranty period.

#### **Article 14. Obligations of the master builder organization to ensure safety during the construction of hydraulic structures**

During the construction of hydraulic structures, the master builder organization is obliged:

development of working documentation and expert supervision of its technological part during construction (when the facility is ready for operation) as agreed with the customer;

performance of work stipulated by the approved project, in accordance with the work schedule and in compliance with the established norms, building codes and regulations;

timely and high-quality execution of construction and installation, special and commissioning works in accordance with design solutions and building codes and regulations;

maintaining control documentation in the prescribed manner during the implementation of projects, ensuring the proper implementation of proposals and objections received from design and contracting organizations, the State Construction Inspection, as well as the state control body for the safety of hydraulic structures;

preparation and submission to the customer of executive documents of the object, including certificates of conformity for products subject to certification, technical passports for used building materials and equipment;

timely delivery of the object to the contracting organization in accordance with the approved projects, other requirements and contractual obligations;

timely elimination of defects identified during the warranty period;

ensuring the protection of the object during construction.

#### **Article 15. Declaration of safety of hydraulic structures**

The operating organization that uses a hydraulic structure at the stages of its operation, decommissioning, as well as reconstruction, overhaul, restoration or conservation, draws up a safety declaration for a hydraulic structure. The procedure for drawing up a declaration is determined by the Cabinet of Ministers of the Republic of Uzbekistan.

The operating organization submits a safety declaration for a hydraulic structure to a specially authorized body. The approval of the declaration by a specially authorized body is the basis for the inclusion in the cadastre of a hydraulic structure, its use or decommissioning or reconstruction, major repairs, restoration or conservation.

**Article 16. State examination of the safety declaration of hydraulic structures**

The state examination of the safety declaration of hydraulic structures, including the state examination at the design stage, is carried out in the manner established by the Cabinet of Ministers of the Republic of Uzbekistan.

The state examination of the declarations of the safety of hydraulic structures is carried out on the initiative of operating organizations of hydraulic structures, including in the absence of their consent, in accordance with the instructions of the dedicated government agency.

On the basis of the conclusion of the state examination, the dedicated government agency may decide to approve the safety rules for hydraulic structures, issue a corresponding permit or refuse to issue a permit.

If the operating organization does not agree with the decision of the dedicated government agency, the decision can be appealed in court.

**Article 17. Inspection of hydraulic structures**

When checking hydraulic structures, control is carried out over the activities of the owner or operating organizations of hydraulic structures, as well as contractors during the operation of hydraulic structures, their construction, reconstruction, overhaul, restoration or conservation in order to assess compliance with the safety standards and rules of hydraulic structures.

**Article 18. Creation and use of emergency material and technical reserves to ensure the safety of hydraulic structures**

Emergency material and technical reserves to ensure the safety of hydraulic structures are created in advance in order to urgently attract the necessary material resources in case of emergencies. The procedure for creating these reserves is determined by the Cabinet of Ministers of the Republic of Uzbekistan.

**Chapter 4 Final Provisions****Article 19. Compensation for damage caused by an accident at a hydraulic structure**

The harm caused to the life, health, property of individuals and legal entities as a result of violation of the legislation on the safety of hydraulic structures is compensated in the manner and under the conditions established by the current legislation.

**Article 20. Responsibility for violation of legislation on the safety of hydraulic structures**

Persons guilty of violating the legislation on the safety of hydraulic structures are liable in the manner prescribed by law.

**Article 21. Invalidation of some legislative acts of the Republic of Uzbekistan**

To declare invalid the following legislative acts:

1) Law #826-I of the Republic of Uzbekistan dated August 20, 1999 “On the safety of hydraulic structures”.

2) Part XXIII of the Law #447-II of the Republic of Uzbekistan dated December 13, 2002 “On Amendments and Additions to Certain Legislative Acts of the Republic of Uzbekistan” (Collected Legislation of the Republic of Uzbekistan, 2003, #3, Article 20);

Article 26 of the Law #59 of the Republic of Uzbekistan dated October 10, 2006 “On amendments and additions to some legislative acts of the Republic of Uzbekistan in connection with the improvement of the legal protection system and the liberalization of financial responsibility of business entities” (Collected Legislation of the Republic of Uzbekistan, 2006, #41, Article 405, Bulletin of the Chambers of the Oliy Majlis of the Republic of Uzbekistan, 2006, #10, Article 536).

**Article 22. Enforcement, communication, clarification of the essence and meaning of this Law**

Ensure the implementation of this Law, its communication to the performers and clarification of its essence and significance to the population by the Ministry of Justice of the Republic of Uzbekistan, the Ministry of Water Resources of the Republic of Uzbekistan and other interested ministries, state committees, departments and organizations.

**Article 23. Bringing legislation into conformity with this Law**

The Cabinet of Ministers of the Republic of Uzbekistan:

brings government decisions in line with this Law;

ensures the revision and cancellation by the state administration bodies of their regulatory legal acts that contradict this Law.

**Article 24. Entry into force of this Law**

This Law comes into force from the day of its official publication.

**The President of the Republic of  
Uzbekistan**

**Sh. Mirziyoyev**



- .....  
 .....  
 4. How relevant was the project's design and implementation appropriate for meeting the project's objectives?  
 Highly:  
 Partially:  
 Little:  
 Not at all:  
 EXPLAIN YOUR CHOISE INWRITING.....  
 .....  
 .....

**Coherence**

5. How coherent was the collaboration with other entities in the UN system and other international organizations in the region (OSCE, GIZ-German technical assistance, International Water Assessment Centre)?  
 Highly:  
 Partially:  
 Little:  
 Not at all:  
 EXPLAIN YOUR CHOISE INWRITING.....  
 .....  
 .....

6. Were the activities implemented in the required sequence needed to ensure the greatest impact of the project?  
 Highly:  
 Partially:  
 Little:  
 Not at all:  
 EXPLAIN IN WRITING.....  
 .....  
 .....

**Effectiveness**

7. Did the project achieve the results expected during the project design in terms of the planned activities, outcome and impact?  
 Fully:  
 Partially:  
 Little:  
 Not at all:  
 EXPLAIN YOUR CHOISE INWRITING.....  
 .....  
 .....

8. What were the challenges/obstacles to achieving the project objective and expected accomplishments?  
 EXPLAIN IN WRITING.....  
 .....  
 .....

**Efficiency**

9. Were the human and financial resources allocated to the project used efficiently and commensurate to the project results?  
 Highly:  
 Partially:

Little:  
Not at all:  
EXPLAIN YOUR CHOISE INWRITING.....  
.....  
.....

10. Were the resources (financial and human) appropriate to the design of the project?  
Fully:  
Partially:  
Little:  
Not at all:  
EXPLAIN YOUR CHOISE INWRITING.....  
.....  
.....

**Sustainability**

11. To what extent the products developed through this activity can be maintained and implemented? Could the activity be replicated in the UNECE region or in other regions  
Fully:  
Partially:  
Little:  
Not at all:  
EXPLAIN YOUR CHOISE INWRITING.....  
.....  
.....

12. To what degree the project influenced the practices of beneficiary countries to further pursue cooperation to improve the safe management of dams in the region ?  
Highly:  
Partially:  
Little:  
Not at all:  
EXPLAIN YOUR CHOISE INWRITING.....  
.....  
.....

## ANNEX 7 : ELECTRONIC QUESTIONNAIRE – RUSSIAN VERSION

### ЭЛЕКТРОННЫЙ ВОПРОСНИК - Русская версия

**Внешняя оценка проекта «Создание потенциала для сотрудничества по безопасности плотин в Центральной Азии», 2017-2021 годы, Третья фаза**

Подготовлено Душаном ЗУПКА, независимым консультантом и оценщиком ЕЭК ООН

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#### **Примечание для ключевых информаторов:**

Основной целью оценки является оценка того, в какой степени были достигнуты ожидаемые результаты проекта "Наращивание потенциала для сотрудничества в области безопасности плотин в Центральной Азии".

Эта оценка позволит оценить актуальность, согласованность, эффективность, действенность и устойчивость деятельности проекта и приведет к улучшению: а) межгосударственного сотрудничества в области безопасности плотин в Центральной Азии; б) национального потенциала в разработке и внедрении правовых, нормативных и технических рамок по безопасности плотин в Центральной Азии; в) безопасности и трансграничного сотрудничества по отдельным плотинам.

В ходе оценки будет также оценено, каким образом гендерные аспекты, наиболее уязвимые группы и инвалидность были включены в эту деятельность, и будут вынесены рекомендации о том, как эти вопросы могут быть лучше включены в будущие аналогичные процессы.

Анализ, выводы, заключения и рекомендации, основанные на информации, собранной в ходе интервью/анкетирования ключевых информантов, будут представлены в независимом оценочном отчете.

Информация, предоставленная ключевыми информаторами, будет рассматриваться как конфиденциальная.

Ответы от:

Имя:

Организация:

Название/функция:

#### **Актуальность**

1. В какой степени проект соответствовал Повестке дня Организации Объединенных Наций в области устойчивого развития на период до 2030 года и другим глобальным и региональным приоритетам, а также программе работы ЕЭК ООН, включая Конвенцию по водам?

Высоко :

Частично:

Маленько:

Нисколько::

**ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :**

2. В какой степени проект отвечал приоритетам и потребностям стран-бенефициаров?

Высоко:



Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

3. В какой степени проект был ориентирован на наиболее уязвимые группы?

Учитывалась ли интеграция инвалидов на всех этапах проектного цикла? Выступала ли ЕЭК ООН за гендерное равенство в этой области работы?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

4. Насколько релевантны были разработка и реализация проекта для достижения целей проекта?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

#### **Согласованность**

5. Насколько последовательным было сотрудничество с другими организациями системы ООН и другими международными организациями в регионе (ОБСЕ, GIZ-Немецкая техническая помощь, Международный центр оценки водных ресурсов)?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

6. Были ли мероприятия, осуществляемые в требуемой последовательности, необходимы для обеспечения наибольшей отдачи от проекта?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ В ПИСЬМЕННОЙ ФОРМЕ :

#### **Эффективность**

7. Достиг ли проект ожидаемых при разработке проекта результатов с точки зрения запланированных мероприятий, результатов и воздействия?

Полностью:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

8. Каковы были проблемы/препятствия на пути достижения цели проекта и ожидаемых достижений?

ОБЪЯСНИТЕ В ПИСЬМЕННОЙ ФОРМЕ :

### **Действенность**

9. Были ли людские и финансовые ресурсы, выделенные на проект, использованы эффективно и соразмерно результатам проекта?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

10. Были ли ресурсы (финансовые и людские) достаточны для разработки проекта?

Полностью:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

### **Устойчивость**

11. В какой степени продукты, разработанные в рамках этой деятельности, могут поддерживаться и реализовываться? Может ли эта деятельность быть воспроизведена в регионе ЕЭК ООН или в других регионах

Полностью:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

12. В какой степени проект повлиял на практику стран-бенефициаров по дальнейшему развитию сотрудничества в целях улучшения безопасного управления плотинами в регионе ?

Высоко:

Частично:

Маленько:

Нисколько:

ОБЪЯСНИТЕ СВОЙ ВЫБОР В ПИСЬМЕННОЙ ФОРМЕ :

**Annex 8 : Pictures of selected dams of Central Asia**



**KURPSAY hydroelectric power station on the NARYN River, KYRGYZSTAN**



**NUREK hydroelectric power station on the VAKHSH river, TAJIKISTAN**



**Joint Iran-Turkmenistan reservoir dam on the TEJEN River/GERIRUD**



Dam of the Andijan hydroelectric complex on the KARADARYA River, UZBEKISTAN