

## **Annual Project Progress Report**

**Project title:** «Strengthening National Capacity for Seismic Risk Assessment, Prevention and Response to Potential Earthquakes»

**Award ID:** 00102378

**Project ID:** 00104475

**Implementing partner:** Institute of seismology and physics of the atmosphere of the Academy of Sciences of Turkmenistan

**Period covered in this report:** January 1 until December 31, 2023

**Date of last Annual Report:** January 2022

**Date of the last Project Board meeting:** October 26, 2022

**Date of last Quality Assurance and rating:** December 22, 2023 Implementation: Satisfactory

### **1. Project Performance**

**Please state the expected Output of the Project, set indicators and corresponding CP Outcome (as per project document/AWP):**

**Project Output 1:** Comprehensive assessment of seismic risks in Ashgabat conducted

**Output indicators 1.1:** Quantity of methodological recommendations and proposals for approbation of some modern methods of seismic microzoning and assessment of vulnerability of buildings

**Output indicators 1.2:** Quantity of developed seismic maps of different levels of zoning and directionality (updated) for the city of Ashgabat

**Output indicators 1.3:** Quantity of geospatial models of earthquake susceptibility to buildings in target areas (housing stock and administrative buildings) based on building and ground characteristics

**Output targets 1.1:** Collection and analysis of existing methodological and data also development of detailed plan of implementation of the project in collaboration with Institute of Physics of the Earth of the Russian Academy of Sciences, the Sergeyev Institute of geocology, Central-Asian Institute for Applied Geosciences and with national partners.

**Output targets 1.2:** Making practical works and seismic measurements for high-quality development of documentation regarding forecasting and monitoring of seismic events in cooperation with Central-Asian Institute for Applied Geosciences, Institute of Physics of the Earth of the Russian Academy of Sciences (including the analyze of buildings vulnerability and evaluation of seismic risk).

**Output targets 1.3:** Giving support to Institute of seismology and physics of the atmosphere of the Academy of Sciences of Turkmenistan in development of new maps of microzoning and in updating of available maps.

**Output targets 1.4:** Interpretation of received information regarding results of researches, monitoring of necessary modelling (including of geospatial models of buildings are vulnerable to

earthquakes on target areas (available housing, administrative buildings). Preparation of the report regarding complex evaluation of seismic risks in Ashgabat city.

b) Were the indicators and output achieved?      Yes       No       Partially

c) If no or partially, please explain why?

- I. In accordance of the Project document the Output 1 will be received while the whole project life. (At the moment, the final work on all indicators remains)
- II. The implementation of the planned activities have been delayed due to late transfer of funds from the Government and resulted in delayed recruitment of the Project Analyst in November 2023

**Project Output 2:** Scientific and technical and human capacities of the Institute of seismology are strengthened for more effective work in the field of seismic hazard assessment and earthquake monitoring, as well as seismic risk assessment

**Output indicators 2.1:** Quantity of laboratories of the Institute of seismology equipped with necessary and updated scientific and technical equipment

**Output indicators 2.2:** Quantity of employees of scientific research institutes, ministries and departments that have passed trainings and courses on modern methods of seismic risk assessment

**Output indicators 2.3:** Quantity of scientific and methodological and practical bases developed to improve the principles of existing disaster preparedness, complex monitoring and reporting of seismic events

**Output targets 2.1:** Defining parameters, purchasing and delivery of special technical equipment and stationary for Institute of seismology and physics of the atmosphere of the Academy of Sciences of Turkmenistan.

**Output targets 2.2:** Organizing trainings for staff from research institutes who works in the field of seismic engineering and for specialists who works in relevant ministries in the field of disaster risk reduction and in the field of receiving and quality control of data for further evaluation of seismic risks by using modern methods.

**Output targets 2.3:** Development of scientific and methodological materials for further trainings for staff from research institutes.

b) Were the indicators and output achieved?      Yes       No       Partially

c) If no or partially, please explain why?

- I. In accordance of the Project document the Output 2 will be received while the whole project life. (At the moment, the final work on all indicators remains)
- II. Output target 2.2: Representation of the United Nations Development Programme (UNDP) Turkmenistan successfully conducted a two-day National Training on Recovery Planning and Needs assessment after natural disasters on April 11-12, 2023 there are 33 people participated.

- III. The implementation of the planned activities have been delayed due to late transfer of funds from the Government and resulted in delayed recruitment of the Project Analyst in November 2023

**Project Output 3:** Increasing the readiness level of the relevant agencies to respond to disasters caused by earthquakes

**Output indicators 3.1:** Quantity of developed scenarios for the emergencies and development of disasters in case of the impact of strong earthquakes in targeted settlements on an improved scientific and methodological basis, using the example of a spatially linked scenario for the development of consequences for different time intervals

**Output indicators 3.2:** Quantity of training methods and materials for assessing the risks of earthquakes, associated risks of secondary and cascade disasters replicated and sent to local executive bodies for further use

**Output indicators 3.3:** Quantity of recommendations to the Ministry of Education on the inclusion of modules to assess seismic hazard and risk in the educational process of pilot universities for the further involvement of junior personnel in scientific activities

**Output indicators 3.4:** Quantity of investment strategies for DRR at the macro level

**Output targets 3.1:** Development of scenarios for the development of emergencies in case of earthquakes on the targeted locality based on improved scientific and methodological basis for further dissemination to the Ministry of Defense of Turkmenistan and to others public authorities.

**Output targets 3.2:** Development of materials regarding earthquake risks evaluation and consideration of risks and other activities for future making recommendations to other stakeholders

**Output targets 3.3:** Preparation of recommendations to include the module about seismic risks evaluation in institutes training programs.

**Output targets 3.4:** Development of a DRR investment strategy at the macro level, based on the results of the project performance.

b) Were the indicators and output achieved? Yes  No  Partially

c) If no or partially, please explain why?

- I. The implementation of the results of Project Output 3 was not provided due to lack of funding. However, after the tranche of the amount of money saved by the Institute's own funds, it is planned to implement the results of Project Output 3.
- II. The implementation of the planned activities have been delayed due to late transfer of funds from the Government and resulted in delayed recruitment of the Project Analyst in November 2023

## **2. Progress Reporting**

**Please summarize the main achievements during the project cycle:**

**Project Output 1:** Comprehensive assessment of seismic risks in Ashgabat conducted

- I. The terms of references has been prepared for international and local consultants to implement of all Output indicators.

**Project Output 2:** Scientific and technical and human capacities of the Institute of seismology are strengthened for more effective work in the field of seismic hazard assessment and earthquake monitoring, as well as seismic risk assessment

- I. The terms of references has been prepared for international and local consultants to implement of all Output indicators.
- II. It was composed and provided specification for further purchasing of technical equipment for the project and for Institute of seismology and physics of the atmosphere of the Academy of Sciences of Turkmenistan and all necessary tender documents have been prepared (RFQ)
- III. The English-Russian-Turkmen explanatory dictionary on geophysics, seismology and engineering-geological sciences with over 2100 terms has been prepared for publication.

**Project Output 3:** Increasing the readiness level of the relevant agencies to respond to disasters caused by earthquakes

- I. The terms of references has been prepared for international and local consultants to implement of several Output indicators.

**3. Project Risks and Issues**

**The project Risk Log is maintained throughout the project implementation to capture potential risks to the project and associated measures to mitigate risk. The Project Manager shall maintain and update the Risk Log and ensure that risks are identified, communicated and managed effectively.**

**A number of potential risks are listed below.**

<b>Description of risk</b>	<b>Type and category</b>	<b>Risk management actions</b>	<b>Current situation</b>
Some of the activities planned in the AWP may go beyond the project end date of June 30, 2024.	Operational	Accelerate UNDP internal processes. (e.g.:recruitment of national and international consultant, procurement processes). Seek Project extension from the National Partners until the end of 2024	In process of recruitment of international consultants and procurement of necessary good and services.
Reduced government funding may lead to partial achievement of the Project Output 3	Financial, operational	Closely work with the national partners to prioritise key actions and results to be achieved within the Output 3	Project analyst is in day-to-day engagement with the Sesimology Institute to prioritise Output 3 related activities

#### **4.Lessons learned and follow-up steps (if applicable)**

##### **a) Please provide the lessons learned and further steps after the project's closure.**

- I. When co-operating with state authorities, it is important to bear in mind the real possibility of very long term resolution of issues. Therefore, it is necessary to work as quickly as possible. (Example tranche transfer took place on 8 December 2023 and the project was extended in April 2023). Due to specific nature of the Project activities, very often, there are lack of qualified and experienced consultants both international and national to conduct planned Project activities. In order to avoid further delays due to poor consultants market and Quantum related technical issues, Project analyst will closely work with the national partners to headhunt for required expertise.

#### **3. Gender Equality and Women's Empowerment**

Analyse and report with the support of evidence concrete results achieved and/or unachieved towards gender equality and women's empowerment during the year.

- I. Representation of the United Nations Development Programme (UNDP) Turkmenistan successfully conducted a two-day National Training on Recovery Planning and Needs assessment after natural disasters on April 11-12. There ara 33 people participated, including 12 women and 21 men. About 40% of the participants were women. This is an actual illustrative example of gender equality within the framework of this project.

#### **5.Transfer of Assets or other related matter**

##### **a) Please state on any past or future transfer of assets made within the project cycle (Attach list of equipment, cooperation frameworks with beneficiaries, etc.)**

- I. Agreement on the transfer of ownership of durable tangible assets and equipment from the UNDP representative office to Institute of seismology and physics of atmosphere of the Academy of science of Turkmenistan total amount of **52,541.00 USD** (February 19, 2020)

#### **6.Financial management**

<b>Budget item</b>	<b>Total approved in 2023 (in USD)</b>	<b>Expenses + commitments</b>	<b>Budget utilization in % to planned</b>
<b>Component 1</b>	136,010.91	3,428.57	% 2,52
<b>Component 2</b>	147,486.85	2,934.86	% 1,99
<b>Component 3</b>	159,590.50	—	—
<b>Project management</b>	53,430.71	10,000.00	% 18,71

<b>Total delivery in 2024</b>	<b>496,518.97</b>	<b>16,363.43</b>	<b>% 3,30</b>
<b>In % to total project budget</b>			

**Prepared by:**  **Azat Yagshymradov, Project Analyst**

**Date:**

**Approved by:**  **Farhat Orunov, Programme Specialist**

**Date:**