



## **UNECE projects and instruments to improve the safety of tailings and prevent accidental water pollution**

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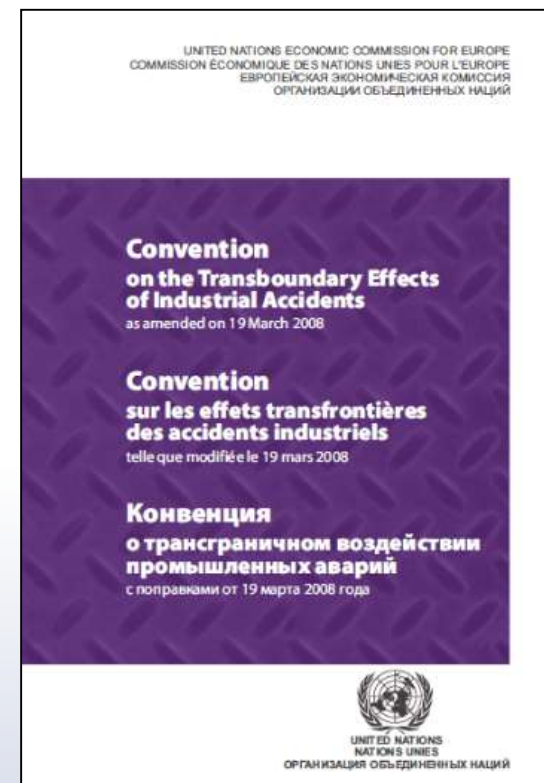
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*Ms Ksenia Nechunaeva, Environmental Consultant, Industrial Accidents Convention, UNECE*



# UNECE Convention on the Transboundary Effects of Industrial Accidents and the countries of Central Asia

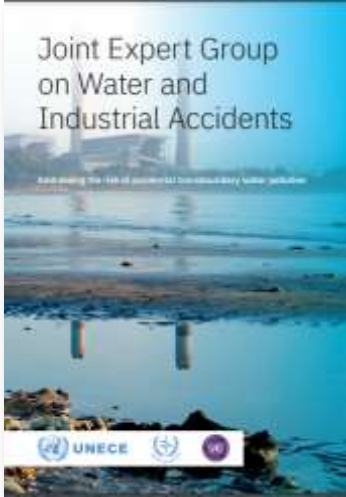
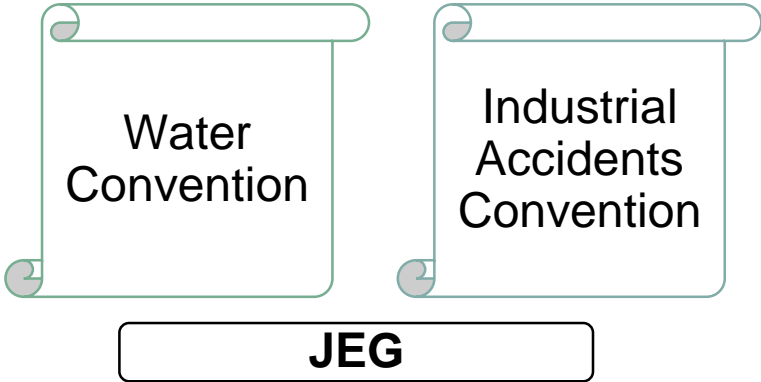
- ✓ 42 Parties
- ✓ Designed to protect people and the environment from industrial accidents by preventing, preparing for and responding to accidents
- ✓ Accidents regulated by the Convention:
  - ✓ associated with hazardous activities (production, use, storage, handling or disposal of hazardous substances)
  - ✓ capable of causing transboundary impact
- ✓ Covers NATECH (man-made accidents caused by natural hazards)
- ✓ Of all the Central Asian countries, only Kazakhstan is a Party to the Convention
- ✓ All 5 CA countries are beneficiaries of the Assistance and Cooperation Program of the UNECE Convention and receive targeted support (mainly through project activities, including trainings, seminars, reports and recommendations, exchange of information and experience)



# Joint expert group on water and industrial accidents and its methodology

## Joint Expert Group (JEG):

- Founded in 1998
- Focused on preventing accidental water pollution, including in the event of Natech accidents, and its consequences
- Combining integrated water resources management with industrial safety



Develops methodologies and checklists



# UNECE Tailings Safety and Best Practice Guidelines and related methodology



- Developed under the UNECE industrial accidents and water conventions and approved at COP-5 (2008) and WS-5 (2009)
- Contains safety principles and recommendations for:
  - Governments
  - the competent authorities, and
  - tailings operators
- Cover technical and organizational aspects related to:
  - Construction preparation and construction
  - Operation and management
  - Object Inspection
  - Identification, evaluation and management of abandoned sites
  - Planning for emergencies

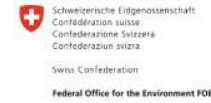
- A methodology has been developed to support countries in the practical application of the guidelines

# Measures to strengthen the safety of tailings and prevent accidental water pollution in Central Asia in 2021-2023



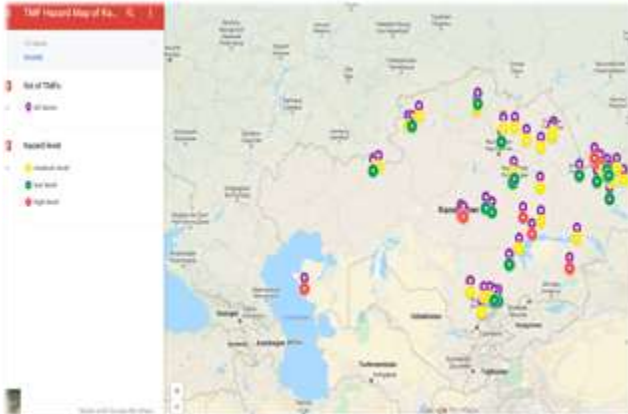
- ✓ [UNECE Project on Enhancing the Safety of Tailings in Kazakhstan](#) (2019-2021 гг.)
- ✓ [UNECE Project on Strengthening the Safety of Tailings in Tajikistan](#) (2019-2021 гг.)
- ✓ [UNECE project to support the countries of Central Asia to improve the safety of tailings](#) (с 2020 г.)
- ✓ [Project on National Dialogues on Industrial Safety in Central Asia \(Phase 1: Launch\)](#) (с 2020 г.)
- ✓ [Project under the auspices of the German Environmental Protection Agency to improve the safety of tailings in Kyrgyzstan](#) (2021 г.)
- ✓ [The project "Development of joint measures for the prevention and response to pollution of the Syr Darya river in emergency situations"](#) (2021-2023 гг.)
- ✓ [Project to improve the safety of tailings and prevent accidental water pollution in Uzbekistan and beyond in Central Asia](#) (2021-2023 гг.)

# Raising awareness of tailings hazards and related accident risks



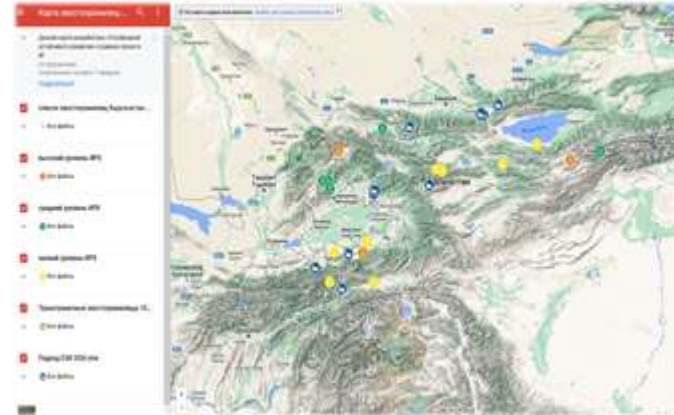
## Inventory and mapping of tailings

### Interactive map of tailings in Kazakhstan



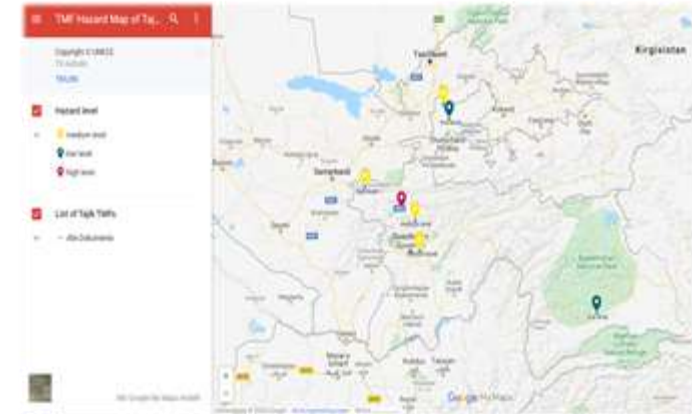
✓ Inventory and mapping of 121 tailings

### Interactive map of tailings in Kyrgyzstan



✓ Inventory and mapping of 62 tailings

### Interactive map of tailings in Tajikistan



✓ Inventory and mapping of 13 tailings

### Interactive map of tailings in Uzbekistan



✓ Inventory and mapping of 41 tailings

59 out of 237 tailings may have potential transboundary impact → 25%

### Interactive map of tailings in Syr Darya river basin



✓ Inventory and mapping of 61 tailings

# More effective coordination between national competent authorities and other stakeholders in the field of industrial safety

## Kazakhstan



Second meeting of the WG on March 15, 2023

✓ The first meeting of the WG was held on February 11, 2022 under the leadership of the Ministry of Emergency Situations in cooperation with the Ministry of Ecology and Natural Resources

The WG was officially established by a decree of the Ministry of Emergency Situations in January 2022.

## Tajikistan



Second meeting of the WG on April 4, 2023

The WG was officially established under the government on October 31, 2022

The inaugural meeting of the WG took place on December 2, 2021.

## Uzbekistan



Development of terms of reference in the first half of 2023

Negotiations on the establishment of the WG initiated and ongoing

# "Development of joint measures to prevent and respond to pollution of the Syr Darya River in emergency situations"



- ✓ implemented by the Water Convention, in close cooperation with the UNECE Industrial Accidents Convention and supported by the International Water Assessment Center (IWAC) with EU funding (National Water Policy Dialogues of the EU Water Initiative)

**Deadlines:** June 2021 - extended until the end of February 2023 (Phase I)

**Objective:** Development of joint measures for the prevention and response to pollution

## Results:

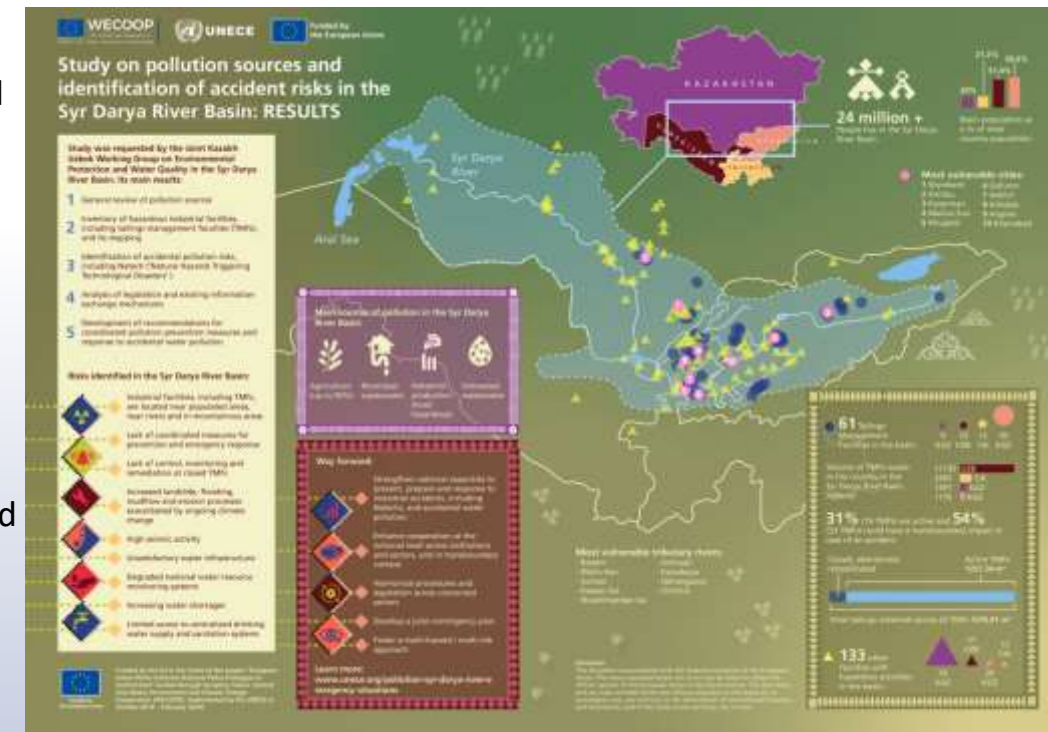
- ✓ An in-depth report examining the state of water resources, water quality issues, issues related to policies and institutions in the field of water management, industrial safety and prevention of accidental water pollution. It contains specific recommendations to be implemented by riparian countries.
- ✓ Inventory and mapping of 61 tailings and 133 other hazardous enterprises in the Syrdarya river basin
- ✓ Infographic and Executive Summary with key takeaways

## Key country needs for Phase II (no funding):

Implementation of recommendations to address gaps, in particular on the development and testing of a transboundary contingency plan for the Syrdarya River Basin



**Beneficiaries: Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan**





# Joint project of UNECE and UNISDR “Integration of risks of man-made/industrial accidents in national strategies and plans for disaster risk reduction”



## General information

- ✓ Implemented in Kyrgyzstan and Tajikistan
- ✓ Dates: August 2022 – January 2023
- ✓ More detailed information at <https://unece.org/environment-policy/industrial-accidents/addressing-technologicalindustrial-accident-risks-national>



## Objective

- ✓ Integrating the risks of man-made and industrial accidents into programs and plans for the implementation of national strategies for DRR in Kyrgyzstan and Tajikistan
- ✓ Integrating the risks of man-made accidents caused by natural disasters (Natech) into political and management practices



## Results

- ✓ Contextual analysis reports on the risks of technological/industrial accidents in national DRR plans and strategies
- ✓ Recommendations for integrating technological/industrial accident risks, including (Natech), and transboundary considerations into national action plans

The project contributes to the achievement of the following priorities of the Strategy for the development of cooperation between the CA countries on DRR:

- ✓ Improved understanding of disaster risk
- ✓ Strengthening Institutional Capacity for Disaster Risk Management



# Decision 2020/1 “Improving the safety of tailings in the UNECE region and beyond”

- ✓ Held on December 1, 2020 with the support of Germany
- ✓ 43 countries, 115 participants, 37 organizations
- ✓ Preparedness and response are important, but prevention is key
- ✓ Tailings safety is a regional issue, not just a national one

**Decision on Enhancing the Safety of Tailings** – actions adopted at the Eleventh Conference of the Parties (December 2020), agreed by the Parties and recommended to other countries:

- *Use the UNECE Tailings Safety and Best Practice Guidelines and associated methodology to achieve harmonized application*
- *Improve inter-ministerial and stakeholder coordination – at the national and cross-border levels*
- *Review tailings legislation and policy in line with international best practice, such as safety guidelines, and work to establish a good practice standard*
- ***Increase efforts to improve tailings safety and accident prevention in the face of more extreme weather events driven by climate change***
- *Include tailings in the identification and notification of hazardous activities*



**Decision 2020/1, first of all, underlines the obligation of countries to prevent accidents at tailings, recommends countries in the UNECE region and invites those outside it to apply the UNECE Guidelines on the Safety of Tailings and the associated Methodology.**

# ROADMAP FOR IMPROVING THE SAFETY OF TAILINGS IN THE UNECE REGION AND BEYOND

## WHY IS A ROADMAP NEEDED?

1

Define key goals to improve tailings safety based on decision 2020/1

2

Set the direction, actions and priorities for Parties and Member States in the UNECE region and beyond

3

Note the activities that the secretariat of the UNECE Convention can carry out in support of parties and other UNECE member countries, as well as cooperation with other international organizations

## 5 KEY GOALS TO IMPROVE TAILINGS SAFETY

**A. Understanding the risks** associated with the operation of tailings facilities, within and beyond national borders

**A. Eliminate tailings risks** based on strategy and management

**A. Prevention and preparedness** for accidental water pollution from tailings to maintain water quality

**A. Prevention of industrial accidents** caused by natural and man-made emergencies (NME) and adaptation to climate change

**A. Information and knowledge sharing** and capacity building

# Roadmap for improving the safety of tailings in the UNECE region and beyond



## NEXT STEPS

### 2023–2024

- Promote understanding of the risks associated with tailings
- Review and update existing measures and legislation**
- Use existing and create new working groups and national coordination mechanisms**
- Report tailings as a hazardous activity (10th reporting cycle)**

В зависимости от наличия средств

- Prepare an overview: tailings facilities in the ECE region, possible existing threats, risks and hot spots**
- Improve shared understanding and risk management across countries**
- Facilitate multi-stakeholder dialogue on existing benefits and challenges in the ECE region

### 2025–2026

# Online Toolkit for Improving Tailings Safety

## Онлайн-инструментарий и подготовка по повышению безопасности хвостохранилищ

### Общий обзор

Промышленные аварии на хвостохранилищах уже приводили к экологическим катастрофам с разрушительными последствиями для людей и окружающей среды на территории стран и за их пределами. Крупные промышленные аварии в регионе ЕЭК ООН и за его пределами побудили страны разработать и внедрить инструменты в рамках Конвенции ЕЭК ООН о трансграничном воздействии промышленных аварий для повышения безопасности хвостохранилищ и предотвращения таких аварий в будущем.



Этот онлайн-инструментарий помогает странам в укреплении безопасности хвостохранилищ и практики управления ими. Он служит центральным узлом для всех, кто хочет узнать о важности обеспечения безопасности хвостохранилищ, соответствующей работе и инструментах в рамках Конвенции. В то же время он обеспечивает для стран дистанционную подготовку без необходимости личного присутствия, чтобы улучшить их знания о воздействиях и проблемах, связанных с хвостохранилищами, чтобы применять существующие руководящие принципы, включая инструменты ЕЭК ООН, для повышения безопасности хвостохранилищ. Этот интерактивный инструментарий и подготовка включают в себя четыре раздела в раскрывающемся меню ниже: справочная информация о безопасности хвостохранилищ; трехстадийная практическая учебная подготовка для стран по совершенствованию практики безопасного управления; резюме работы ЕЭК ООН по хвостохранилищам и партнеров; а также дополнительная литература, включающая ключевые доклады и ссылки на источники информации.

Повышение безопасности шахтных хвостохранилищ и улучшение управления ими позволяют странам лучше понимать риски бедствий и управлять ими, в том числе и в рамках межведомственного и межсекторального сотрудничества. Таким образом, эта работа способствует достижению целей Повестки дня на период до 2030 года с ее целями в области устойчивого развития и Сендайской рамочной программы по снижению риска бедствий. Это также укрепляет государственное управление недрами, устойчивую инфраструктуру и устойчивость к бедствиям как в самих странах, так и за их пределами.

Справочная информация - Призыв к незамедлительным действиям

Практическая подготовка (3 стадии)

Работа ЕЭК ООН в области хвостохранилищ и партнеры

Дополнительная литература - ключевые доклады и ссылки на источники информации по безопасности хвостохранилищ

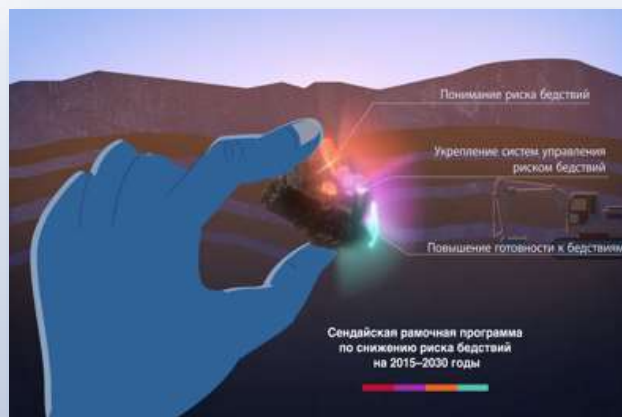
SENDAI FRAMEWORK  
FOR DISASTER RISK REDUCTION 2015-2030

SUSTAINABLE  
DEVELOPMENT  
GOALS

- Promotes knowledge of tailings safety through online training on the application of relevant safety guidelines and methodology

Consists of:

- Reference information on the safety of tailings
- Practical training ->3-step approach
- Brief information on UNECE work related to tailings and partners
- Further reading (main reports and links)
- Available at <https://unece.org/ru/environment-policy/industrial-accidents/onlayn-instrumentariy-i-podgotovka-po-povysheniyu>



Includes tailings safety training video (ENG, RUS)



## **Further activities in the field of tailings safety and prevention of water pollution in 2023**

**End of May 2023 - Sub-regional workshop on the safety of tailings and prevention of water pollution in Central Asia in Tajikistan**

**2nd half of 2023 - Organization of on-site training and preparation of a report for Uzbekistan with the participation of other Central Asian countries.**

**Thank you for your attentions!**  
**Questions?**

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