# RISK REDUCTION OF MINING ACCIDENTS

# IN THE TISA BASIN

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NAMR

# Hazard Risk Mitigation and Emergency Preparedness Project

## HRMEPP – Rationale

- Romania is exposed to a range a natural disasters and industrial accidents – risks of earthquakes, flooding, landslides, mining accidental pollution – causing economic and human losses, and negative impacts on aquatic ecosystems across the country and neighboring states

- All over the world mine waste management presents a major challenge to the mining industry regarding storage techniques, safety management and risk mitigation.

# PROJECT DESCRIPTION SUMMARY

| COMPONENT | IMPLEMENTED BY | BANK FINANCING (US$M) | GEF FINANCING (US$M) | COSTS (US$M) |
|---|---|---|---|---|
| A. Strengthening of Emergency Management and Risk Financing Capacity | Ministry of Administration and Interior | 8.18 | 0.00 | 10.90 |
| B. Earthquake Risk Reduction | Ministry of Transport, Construction and Tourism | 55.01 | 0.00 | 71.20 |
| C. Flood and Landslide Risk Reduction | Ministry of Environment and water Management | 78.34 | 0.00 | 101.09 |
| D. Risk Reduction of Mining Accidents in Tisa Basin | National Agency for Mineral Resources | 5.64 | 6.24 | 15.25 |
| E. Project Management | Ministry of Transport, Construction and Tourism | 3.15 | 0.76 | 5.21 |
| TOTAL PROJECT COSTS | | 150.00 | 7.00 | 203.65 |

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## RISK REDUCTION OF MINING ACCIDENTS IN THE TISA BASIN

- A modest size component compared with the size of the problem, that will address immediate needs to reduce the risk of catastrophic mining accidents, aiming to protect the integrity of the Danube and Black Sea basins
- To be implemented over 5 years (October 2004 – December 2009)
- National Agency for Mineral Resources is responsible for its implementation and will work closely together with Ministry of Economy and Commerce, Ministry of Environment and Water Management, mine operators, local authorities, designers, local communities.

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## MINING WASTE FACILITIES – MAIN IMPACTS

*Environmental Assessment of the Mining Sector highlights Safety of Tailings and Waste Facilities among the highest environmental priorities for Romania*

- Continuous contamination due to ARD from waste dumps and seepages from TDFs
- Contamination with hazardous substances and debris, as a consequence of extreme meteorological events
- Waste dumps stability
- Tailings dams stability

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## MINING WASTE FACILITIES – AIMS

- Project conduct, standards and practices (e. g. construction quality assurance) comply with best international / EU practice;
- Information sharing on mining waste management in transboundary watershed management context as a first concrete step towards basin-wide cooperation;
- Integration of project into EU legal framework and implementation practice;
- Promote implementation of key European legislation such as, e.g. the EU mine waste directive.

# RISK REDUCTION OF MINING ACCIDENTS IN THE TISA BASIN ACTIVITIES

- Establishment of a baseline and an environmental monitoring system
- Hazards prevention and remediation interventions
- Environmental and engineering guidelines for tailing dams and waste dump facilities
- Regional mine spill disaster response system
- Promoting transboundary cooperation on integrated water resources management for the Tisa Basin

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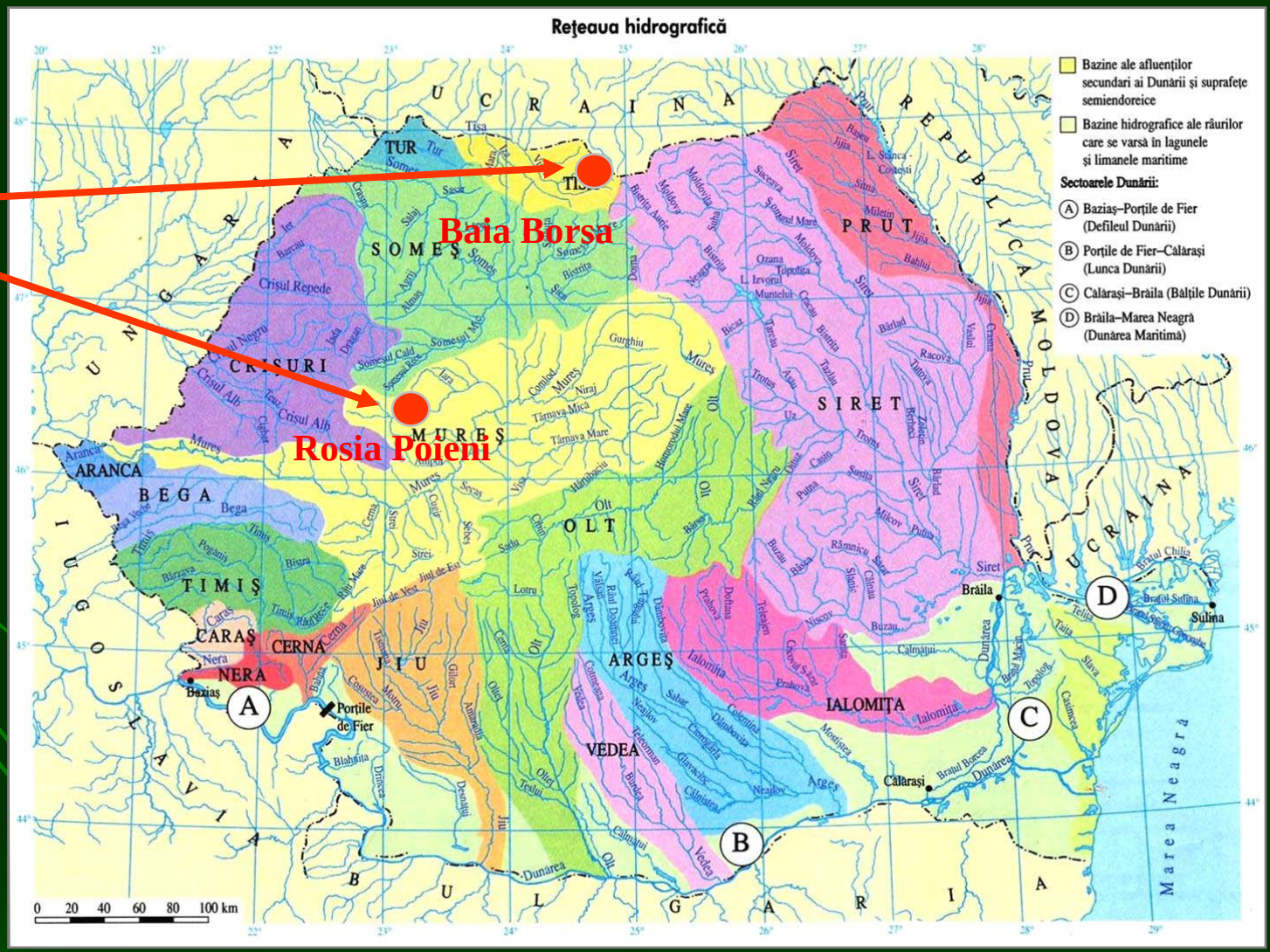
**Priority Sites in the Tisa Basin :**

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# Hazard Risk Mitigation and Emergency Preparedness Project

## PROMOTION OF TRANSBOUNDARY COOPERATION IN THE TISA BASIN

- Promotion of the regional cooperation and dialogue to facilitate the development of a regional policy on the management of tailings dams and waste dumps facilities from the Danube River Basin

- Participation of Romanian experts and decision makers at regional events which promote transboundary cooperation regarding integrated water management and mining waste management in the Tisa Basin, and their involvement in regional studies

# EXPECTED BENEFITS OF THE PROJECT

- At least three highly dangerous tailings management facilities will be rehabilitated
- Immediate/emergency safety measures will be identified and implemented in the remaining high-risk tailings facilities
- Risk assessment procedures will be adopted to identify priority actions
- Environmental monitoring system of the Tisa Basin will be strengthened
- Environmental and engineering guidelines for tailings dam and waste facilities will be developed and adopted
- Regional emergency preparedness and response system related to mining accidents will be implemented