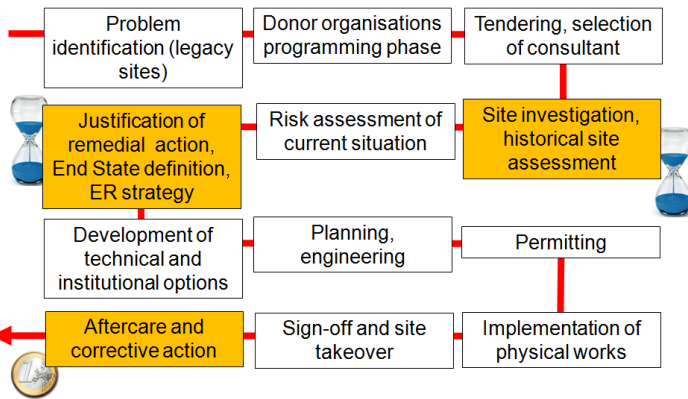


Challenges Of Mine Remediation Programmes In Developing Countries – A Life Cycle Perspective

Critical life cycle phases of Environmental Remediation Projects



Lessons learned and recommendations

- ▶ Site characterisation - decisive for entire ER Project
 - ▶ Usually no data available, or in insufficient quality
 - ▶ Historical site data often held back by host countries
 - ▶ Plan **15 months** for a best practice baseline and site characterisation
- ▶ Justification of remedial measures, End State definition
 - ▶ Despite exaggerated stakeholder expectations most often radiological risks **CANNOT** justify remedial action, but more mundane reasons can (geotechnical, erosion,...)
 - ▶ Legal framework often prescriptive, not ALARA/risk based
 - ▶ Discussion with all stakeholders requires substantial time - plan **12 months**
- ▶ Aftercare
 - ▶ Despite low-maintenance design, aftercare is required
 - ▶ Training programs and monitoring are useless without the means for corrective action
 - ▶ Most often developing countries are expected to provide for monitoring and maintenance but that's simply unrealistic – **provide funding for after-care**

Summary

- 1) Plan at least 3 years for ER project from contracting the consultants/engineers to delivery of a high quality remediation design accepted and understood by all relevant stakeholders
- 2) Build a long-term aftercare funding component into an ER project, otherwise it will just not be done and remediation success are likely to be partly undone.

What's required in developed countries cannot be fast-tracked in developing countries.

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