Critical life cycle phases of Environmental Remediation Projects

- Problem identification (legacy sites)
- Donor organisations
- Programming phase
- Tendering, selection of consultant
- Justification of remedial action, End State definition, ER strategy
- Risk assessment of current situation
- Site investigation, historical site assessment
- Development of technical and institutional options
- Planning, engineering
- Permitting
- Sign-off and site takeover
- Implementation of physical works
- Aftercare and corrective action

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.