

SUMMARY

Several remediation projects have been developed to date, and experience with these projects has been accumulated. Lessons learned span from non-technical to technical aspects, and need to be shared with those who are beginning or are facing the challenge to implement environmental remediation works. This publication reviews some of these lessons.

The key role of policy and strategies at the national level in framing the conditions in which remediation projects are to be developed and decisions made is emphasized. Following policy matters, this publication pays attention to the importance of social aspects and the requirement for fairness in decisions to be made, something that can only be achieved with the involvement of a broad range of interested parties in the decision making process. The publication also reviews the funding of remediation projects, planning, contracting, cost estimates and procurement, and issues related to long term stewardship.

Lessons learned regarding technical aspects of remediation projects are reviewed. Techniques such as the application of cover systems and soil remediation (electrokinetics, phytoremediation, soil flushing, and solidification and stabilization techniques) are analysed with respect to performance and cost. After discussing soil remediation, the publication covers issues associated with water treatment, where techniques such as 'pump and treat' and the application of permeable barriers are reviewed.

Subsequently, there is a section dedicated to reviewing briefly the lessons learned in the remediation of uranium mining and processing sites. Many of these sites throughout the world have become orphaned, and are waiting for remediation. The publication notes that little progress has been made in the management of some of these sites, particularly in the understanding of associated environmental and health risks, and the ability to apply prediction to future environmental and health standards.

The publication concludes by raising key points such as the requirement to develop a national or even regional prioritization of remediation measures in order to spend limited resources with the highest effect. It is noted that remediation objectives will ideally be defined a priori, i.e. before the design of any technical solution, and it is crucial to recognize that remediation activities are not just determined by radiological or health risks. In many cases, other factors will prevail in the definition of the adopted strategy, and public perception will always be a key driver.