

TOPICAL SESSION 4: WP11 CLIMATE AND WP14 SUDOKU

Identify information needs and gaps related to climate change to be integrated into the recommendations for optimisation of near-surface facilities design

Major impacts

- Extreme precipitation
- Drought
- Erosion
- Groundwater level variations
- Sea level rise
- Flooding

Cover system failure

Engineered barrier degradation

How to deal with uncertainty

- Interaction between local climate and RWM experts
- Combine deterministic and probabilistic analysis
- Sensitivity analysis
- Reasonable conservative design margins

Recommendations

- Share knowledge between climate scientists and near-surface disposal designers
- Invest in climate research for more accurate and detailed predictions of future conditions which can support improved hydrological modeling
- Research on climate-resilient materials for engineered barriers (more robust concrete formulations) and multilayer covers (increased resistance to erosion, improved drainage and water diversion)
- Interact with the civil society