



Food and Agriculture
Organization of the
United Nations

15th Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

Soil pollution activities

itps

INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS

15 - 17 November 2021 | Virtual meeting



1. Technical manual for mapping, monitoring, and reporting soil pollution

- **Chapter 1: Glossary and Introduction** → ready, only missing overall description of chapters and editing
- **Chapter 2: Defining the Problem** → almost ready, ensure distinction of information from Chapter 3 and editing
- **Chapter 3: Environmental and Human Health Risk Assessment Framework (ERA and HHRA)** → many sections still missing and structure still to be polished. Selection of a clear recommended methodology for ERA, HHRA and dual risk integration, and determined risk communication.

Chapter 3: Environmental and Human Health Risk Assessment Framework

Tier 0: see Chapter 2

Tier 1:

- Comparing known values to SSV and SSGs (briefly discuss limitations and variances)

Tier 2: Linked to sampling and testing (chapter 4)

- Define what the testing would be for each LOE here
- Soil screening values (SSV) and soil sampling guidelines (SSGs)
- Fuzzy logic model etc.. methods of evaluation in comparison to SSV
- Discussion of assumption and uncertainties

Tier 3: Detailed risk assessment

- Soil and plant indicator
- Bioavailability
- Indicator species
- Short and long-term ecotoxicological assays and ecological parameters

- Human health indicators
- Carcinogenic versus non-carcinogenic risks
- Soil guideline values for human health (SGV): definition and estimation.
- Possible blood/other tissues tests
- Integration of Risk
- Analytical hierarchy processes
- Risk Matrices
- Brief discussion of risk modeling

Risk Communication and Management:

- discussion of uncertainties (how to reduce, communication)
- Based on results guidelines for actions or who should be communicated with
- link to monitoring and reporting chapters
- Emphasis that this is often an iterative process

1. Technical manual for mapping, monitoring, and reporting soil pollution

- **Chapter 4: Sampling strategy and soil analysis** → ready for editing
- **Chapter 5: Mapping soil pollution** → missing new approaches (ai, remote sensing, spectroscopy)
- **Chapter 6: Recommendations for sites with mixed pollution** → almost ready, needs review and editing
- **Chapter 7: Monitoring** → mid-way through the process, some sections developed but others still unwritten. Improve the general structure of monitoring process, data processing and prioritization.
- **Chapter 8: Reporting** ? almost ready, needs review and editing

2. Soil pollution management and remediation projects

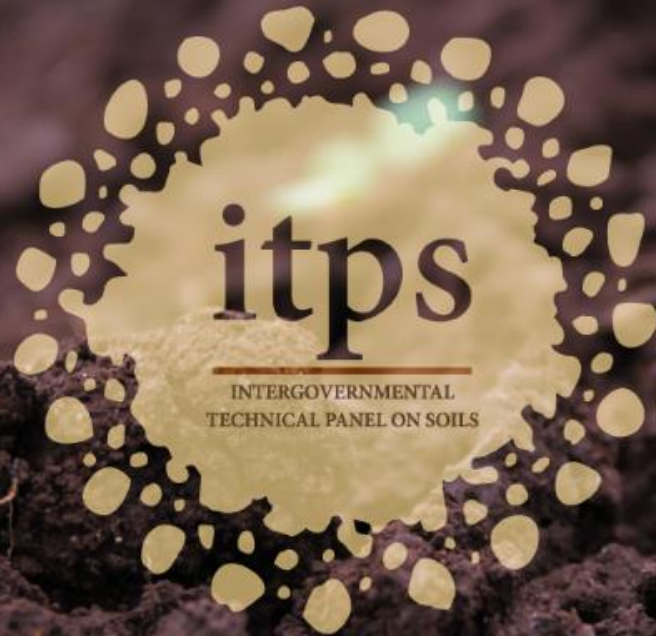
- Pilot sites in agricultural areas affected by trace elements from agricultural practices and off-site sources
- Initial study and steps to be developed by NICOLE (site study and conceptual model)
- Output: list of management and remediation options to propose to farmers → feeding the Online database on BAT





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THANKS!



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