



INTERNATIONAL COMMITTEE ON CONTAMINATED LAND

QUESTIONNAIRE ABOUT LEGAL FRAMEWORK FOR SOIL/SITE CONTAMINATION MANAGEMENT

COUNTRY: [SLOVAKIA](#)

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OVERALL CONTEXT

1. Does your national policy have a specific definition of “contaminated site”, “contaminated soil”? If yes, please provide the definition.

Yes, Slovak legislation has definition of and “contaminated site” defined in the [Act No. 569/2007 on geological works \(Geological Act\) 569/2007 Coll.](#) since 2009.

Contaminated site = Environmental burden – means site, where hazardous substance, caused by human activities, pose a significant risk to human health or the rock environment, soil and groundwater, except environmental damage
Directive 2004/35/EC

This question does not ask about potentially contaminated sites, but in our national policy we have this definition. Environmental burden is a historical contaminated site, so we can use both terms, environmental burden = historical contaminated site.

2. Is Groundwater included in this definition? [Yes](#)

3. Does your policy on contaminated sites/land/soil include other definitions (i.e. brownfield, sediment)?

a. Brownfield? [Yes, **Brownfield** is abandoned industry site, where contamination of groundwater and soil is usually present.](#)

b. [Sediment? No specific definition in national policy.](#)

c. Which sources are you considering? Industrial operations? Transport? Urban contamination? Etc. [Industrial operation, Transport, Urban contamination, Former mining sites, Abandoned landfills, Abandoned storages of pesticides residues, Military bases.](#)

LEGAL FRAMEWOK

4. Does your country have legislation with respect to contaminated land management?



- a. Whatever the situation is, please be precise if it's a specific or a common legislation, if integrated in a more general one (including prevention of emissions, soil protection, land planning, environment & health, etc.)

Adoption of the Act No. 569/2007 Coll. on geological works (Geological Act) and its amendments represent a legal framework for solution of contaminated land management. The Act entered into force on November 1st, 2009, and it defines the terms as environmental burden, potentially environmental burden, geological investigation of the environment including investigation of potentially environmental burden and environmental burden including risk analysis of environmental burden, remediation of environmental burden, the Information System of Environmental burdens and the State Programme of Remediation of Environmental burden.

The regulation of the MoE SR No. 51/2008 Coll. implementing the Geological Act defines certain details on environmental burden, mainly:

- performance of the investigation of potentially environmental burden and environmental burden,
- extent and scope of risk analysis of environmental burden,
- procedures of remediation,
- Information System of Environmental burdens.

The regulation entered into force on September 1st, 2010.

Despite of this basic legislative regulation, the Slovak Republic has a new Act. No. 409/2011 on certain measures in relation to environmental burdens and on the amendment of certain acts. The Act entered into force on January 1st, 2012.

This new Act establishes:

- a) The rights and duties of persons in the identification of an environmental burden,
- b) The method for determining the obliged person in relation to an environmental burden (hereinafter only “the obliged person”)
- c) The rights and duties of an originator of an environmental burden (hereinafter only “the originator”), an obliged person and the ministry whose area of competence) covers the activities that resulted in the creation of the environmental burden (hereinafter only “the competent ministry”),
- d) The competences of state administration authorities in relation to an environmental burden,
- e) Penalties for breaches of obligations laid down by this Act.

- b. If there is no legislation, please be precise how you tackle the problem.

- c. What are the main policy objectives?

Main policy objectives are:

1. The identification of another environmental burdens, which have not been identified yet, especially regulation of right and duties of legal bodies and common people during identification, classification and remediation of the contaminated sites,



2. The liability for the investigation and the remediation, especially regulation of responsibility for environmental burden (the financial liability), as well as competencies of state authorities in field of environmental burden (the supervisory responsibility).
 - d. What are the foundational principles on which the national policy is based? (e.g., polluter pays, risk-based, fit-for-use, stand-still, transparency, ...).

The principles are:

1. Polluter pays principle – according to Act. No. 409/2011 on certain measures in relation to environmental burdens and on the amendment of certain acts,
2. Risk based approach - to ensure protection of human health and environment on site on which environmental burden is situated.

5. What is the Chain of Liability for the management of contaminated land?
 - a. Polluter? Land owner? Last operator? Occupier?

The chain of liability is (proposal by new Act):

1. polluter - the originator,
2. if the originator has been wound up or died, than obligate person is legal successor of the originator,
3. if the originator is not known or it is not possible to determine an obliged person according to subsection (2), the obliged person will be determine as obligate person the owner of the real estate on which the environmental burden is situated,
4. If it was not possible to determine the obliged person, the government of the Slovak Republic shall decide, at the proposal of the Ministry that the competent ministry (the ministry whose area of competence covers the activities that resulted in the creation of the environmental burden) shall provide for the performance of the obligations of an obliged person.

- b. Is there any difference between new and historic contamination?

The Slovak Republic divides land contamination using the date September 1st, 2007:

1. **ENVIROMENTAL BURDEN**, contamination caused by human activities before September 1st, 2007 (old contamination)
2. **ENVIRONMENTAL DAMAGE**, contamination caused by human activities after September 1st, 2007 (new contamination - implementation of the Directive 2004/35/EC).

- c. Can a responsible party pass on the liability to a purchaser? (under statutory law? Contractually?)

Yes, but it have to be fulfilled one condition: If an originator or obliged person is also the owner of the real estate on which an environmental burden is situated, **they can transfer the real estate to another person only after ensuring performance of an environmental geological survey for the real estate; the agreement on the transfer of the real estate shall include the final report of a geological activity which is an environmental geological**



survey. The originator or obliged person is obliged to notify the regional environment office in writing of every such transfer, enclosing the agreement on the transfer of the real estate.

d. Do you separate the obligation to remediate soil pollution and the liability regarding the damage caused by soil pollution and the related remediation measures? **No.**

e.

f. Are you facing specific situations (e.g. privatization of the industrial activities, war impacted areas, ...) needing special programme? **No.**

6. Are there any specifications at regional / local level?

The regional environment offices conduct the proceedings for the determination of an obliged person, carry out state supervision and impose corrective measures.

The local inspectorates carry out state supervision; impose corrective measures and penalties for administrative offences.

7. Are there specifications for site closure?

Yes, remediation is based on results of the Analysis of the risk of pollution of the territory. The analysis of the risk has to take into account the current and approved future use of the land.

8. Is there any legal requirement to conduct investigation for potential contamination in the sale of the property?

No.

9. Does your national policy have any kind of inventories/registers? If yes, please be precise regarding which sites are registered, how the data are collected and if the databases are public.

During the years 2006 – 2008 Slovak Environmental Agency coordinated the inventory process of the Slovak Republic territory (the project Systematic Identification of Environmental burdens in the Slovak Republic). Development of Register of Environmental burdens (REB) was forming one of the project objectives. RCS is split into:

1. part A – potentially environmental burdens
2. part B – environmental burdens
3. part C – remediated and rehabilitated sites

During the years 2009 – 2010 Slovak Environmental Agency coordinated the project Regional Environmental Impact Assessment Studies in Selected regions of Slovakia, which updates the Information System of Environmental burdens.

The publication “Atlas of Remediation Technologies of Contaminated sites” has been published on January 2011 as a part of Information System of Environmental burdens.



Information System of Environmental burdens is accessible on web site: www.enviportal.sk.

10. What are the strong, weak points and the major bottlenecks with respect to the current regulations in your country?

Strong points: Adoption of the Act No. 569/2007 Coll. on geological works (Geological Act) and its amendments and adoption of the Act. No. 409/2011 on certain measures in relation to environmental burdens and on the amendment of certain acts represent a legal framework for solution of contaminated land management. Adoption of the Regulation of the MoE SR No. 51/2008 Coll. implementing the Geological Act, which defines certain details on environmental burdens.

The State programme of Remediation of Contaminated Sites represents the basic strategic document for management of contaminated sites for period of 2010 – 2015. The State programme was approved by the Government of the Slovak Republic in March, 3rd 2010.

Weak point: Possibly lengthy process of determining the obligate persons.

Major bottleneck: Lack of funds to solve the issue, in cases where the liable person is designated as government.

TECHNICAL ISSUES RELATED TO THE LEGAL FRAMEWORK

11. Are there site investigation requirements?

Yes, the Regulation of the MoE SR No. 51/2008 Coll. implementing the Geological Act, which defines certain details on contaminated sites (new contamination – Environmental damage and old contamination – Environmental burden), contains requirements for geological investigation and remediation of the contaminated sites.

12. Are Risk Assessment & Management the main tools?

Yes.

13. Are there specific technical approaches used?

- a. For Human Health (HH), Ecosystems, Groundwater (GW), Surface waters (SW), other targets (i.e. buildings, infrastructures, ...please be precise).

No, just standard. At first have to be done detailed geological survey of environment, which includes the Analysis of the risk of pollution of the territory (health risk assessment and environment risk assessment). The Analysis of the risk of pollution of the territory proposed targets for the remediation of contaminated site.

- b. On a site by site specific approach, or by derivation of guideline values? If possible, please detail your answer.



For each site has to be performed detailed geological survey of environment. The result of investigation is determining the level of contamination of soil and groundwater (the actual amount of hazardous substances in soil and groundwater).

If the amount of pollutants (hazardous substance) in soil and groundwater reaches a level of intervention criteria according the Guideline MoE SR No. 1/2012 -7 on an analysis of the risk of pollution – Annex No. 12, that mean the hazardous substance may poses a significant risk to human health soil and groundwater, in that case the Analysis of the risk of pollution of the territory, which sets the targets for remediation, has to be performed.

- c. Do you take into consideration others sources of pollution in the risk assessment?

Yes, air pollution inside the buildings, high background levels.

14. If the national policy uses guideline values, please be precise in describing the following points:

- a. Reasons for derivation of generic values

Harmonised approach at national/regional level

- b. Objectives / levels of implementation (investigation, risk assessment, remediation)

Investigation and remediation according the Regulation of the MoE SR No. 51/2008 Coll. implementing the Geological Act,
Risk assessment according the Guideline MoE SR No. 1/2012-7 on an analysis of the risk of pollution of the territory.

15. Priority substances metals, monocyclic aromatic hydrocarbons (non-halogenated), polycyclic aromatic hydrocarbons (non-halogenated), monocyclic aromatic hydrocarbons (halogenated), polycyclic aromatic hydrocarbons (halogenated), organic chlorinated pesticides, other pesticides, chlorinated aliphatic hydrocarbons, aliphatic hydrocarbons (non-halogenated), other hydrocarbons (mixed, non-halogenated), remains of organic and inorganic substances, the basic parameters for soil and core indicators for groundwater

- a. Protocols of derivation (including acceptable risk levels used).

According the Guideline MoE SR No. 1/2012-7 on an analysis of the risk of pollution of the territory the considerate pathways are:

- inhalation route of exposure,
- dermal contact route of exposure from contaminated soil and contaminated groundwater,
- Route of exposure by ingestion of contaminated soil and contaminated groundwater.

16. What are the drivers for remediation?



The driver for remediation is the Final report of geological survey which includes the special annex - an Analysis of the risk of pollution of the territory (remediation targets).

a. To what level is clean-up required? (i.e. acceptable risk, land use values, ...)

Acceptable risk and current land use value.

b. Does your national policy use cost-benefits analysis for the choice of the remedial solution?

Technical and remedial cost-benefits are considered.

17. What are the main remediation strategies or treatment techniques used in your countries (including Natural Attenuation)?

a. Distribution of techniques?

In situ methods: natural attenuation, bioremediation, biosparging, bioventing, venting, air sparging, chemical oxidation/reduction, soil washing, hydrodynamic barriers, underground barriers, etc.

Ex situ techniques: extraction of contaminated soil, composting, treatment of soil after removal on the decontamination area, soil washing, incineration, stripping, etc.

b. Evolution in time?

More innovative techniques and environmentally friendly (bio-techniques).

c. Acceptance of innovative treatment techniques?

At first, it has to be performed the pilot test which has to prove, that new technique will not damage the environment and jeopardize human health, than it is considerate the price compares speed of remediation and quality of remediation.

18. Are you considering sustainability in the national approach?

a. If yes, how? In particular, how the three pillars of sustainability are considered and balanced. Not yet, but we are working on it, we are preparing update of our Guideline MoE SR No. 1/2012-7 on an analysis of the risk of pollution of the territory.

b. If no, explain the reasons and the future challenges.

19. How does your country bridge the CLM approach with:

a. Land planning programmes?

MoE SR provides information to communities about the presence of contaminated sites in their regions during the process of preparation of their land planning programs.

b. Public health programmes (aggregation of impacts on surrounding populations)



The sites, where public health might be under the risk caused by presence of contamination, these sites are with high priority for solution – have to be remediated in short time.

FINANCIAL ISSUES

20. What are the specific practices with respect to “Orphan sites”?

According to the Act No. 409/2011 it is in competence of competent ministry.

21. Do you have an idea of the annual budget allocated to Soil Contamination Management?

INVESTIGATION and MONITORING of CONTAMINATED SITES:

According to the ongoing projects for **Geological survey of Environmental burdens at priority sites** and **Monitoring of Environmental burdens at priority sites** is state budget and EU funds approx. 16 mil. Eur (during 2013 – 2015), so annual budget is 8 mil. Eur

REMEDIATION of CONTAMINATED SITES:

according to project in preparation **Remediation of Environmental burdens at priority sites** is state budget and EU funds approx. 48 mil. Eur (during 2013 – 2015), so annual budget is 24 mil. Eur.

a. How is it divided between public, private and others?

For orphan sites and sites, where the state has undertaken to remedy an environmental burden – funds from Operational program ENVIRONMENT, since 2013 state budget.

For non-orphan sites – must be fulfilled “polluter pays principle” - own financial resources as obligate person and originator except conditions, when **owner of non-orphan sites proved**:

1. he did not continue the activity that lead to the creation of environmental burden, or
2. he continued the activity that lead to the creation of environmental burden but he did not damage the environment or human health, or
3. the state has undertaken to remedy an environmental burden, or
4. environmental burden was created as a result of waste disposal in accordance with a valid permit,

In these cases owner of non-orphan sites may apply for funding from EU funds – Operational program Environment, or from the state budget.

b. What are the main financial / funding systems in place in your country? (e.g. Financial guarantees, insurance, public – private partnerships, special foundation, industrial consortium, enforcement, ...).

- EU funds,
- Private sector – according to the *polluter pays principle*
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c. Between the different steps of management (investigation, remediation, monitoring...)?

Investigation ... 10 %

Remediation 85 %

Monitoring ... 5 %

ORGANISATIONAL ISSUES

22. How are stakeholders and in particular communities involved in the approach?

23. Is there a specific approach for:

a. Brownfields?

No. (these sites are covered by Act. No. 409/2011)

b. Megasites?

No. (these sites are covered by Act. No. 409/2011)

c. Widespread pollutions?

No. (these sites are covered by Act. No. 409/2011)

d. Reuse of excavated soils? (e.g., in relation to their quality)

Yes, according the Act. 221/2003 waste management

24. Does your national policy include any accreditation system for consultants or service providers? If yes, please provide some details.

Investigation, remediation and monitoring of contaminated sites (environmental burdens and environmental damages) are geological works. Geological license is issued by the Ministry to Slovak person or foreign person upon the Application for issuing of geological license. Geological licences are issued to sole trader and to legal entities.

25. Do you have any training / capacity building programme, any management accountability and performance measurement?

Yes. 3 times per year we organize seminar for our regional office employees, who are responsible for the issue according Act. No.409/2011.

26. How is the necessary inter-governmental coordination for CLM organized? (e.g. with Health Protection Department, with the public site owners, with state or local public sector environmental organizations, with special interest advocacy groups,)

All documents related to CLM are inter-governmental commented before an approval.

CRUCIAL DEVELOPMENTS IN THE FUTURE

Are there any additional issues to be further developed in the following months/years whatever they are (Research and Development needs, organisational issues, ...)?



No.

Unofficially or officially, do you see any opportunities for collaboration in the coming months or years that may improve overall coordination among international organizations? (e.g., conferences, workshops, international (technical or policy) initiatives, growing alliances (e.g., in support of redevelopment /reuse of contaminated lands, etc.).

YES, some special seminar or working group or conference to prepare a proposal of common guideline for risk assessment of abandoned mining site (health and environmental risk assessment).

REFERENCES

Please give most important references (documents, website, projects, and case studies) that could be relevant for explaining your national approach

Relevant legislation:

<http://enviroportal.sk/environmentalne-temy/environmentalne-zataze/pravne-predpisy-sr>

Relevant projects:

<http://www.sazp.sk/public/index/go.php?id=1746>

<http://www.sazp.sk/public/index/go.php?id=1745>

<http://envirozataze.enviroportal.sk/AtlasSanMetod/AtlasSanMetod.aspx>

Information system of Environmental burdens of the SR:

<http://envirozataze.enviroportal.sk/>

Register of professional competence:

<http://envirozataze.enviroportal.sk/RegisterPovoleni/RegisterOdbSposob.aspx>

Register of geological licenses issued to sole trader:

<http://envirozataze.enviroportal.sk/RegisterPovoleni/GeolFyzOs.aspx>

Register of geological licenses issued to legal entities:

<http://envirozataze.enviroportal.sk/RegisterPovoleni/GeolPravOs.aspx>