



DIFFUSE SOIL POLLUTION

INTRODUCTION TO SESSION OBJECTIVES

Namur, 24 May 2018

QUESTIONNAIRE “DIFFUSE POLLUTION”

Recalling ...

Initiative of Christiane WERMEILLE (FOEN) and Esther GOIDTS (SPW) for

- *information regarding diffuse soil pollution/contamination*
- *to compare national and regional concepts as well as practical approaches*

GENERAL OBJECTIVE:

... to learn and get an overview on how diffuse pollution/contamination is managed in practice

RESPONSES: 15

Austria; Belgium (Flanders & Wallonia); Czech Republic; Germany; Hungary Lithuania, Spain, Sweden



TODAY & FOLLOW-UP

OBJECTIVES (Session 4)

- 1st (preliminary) overview and summary of results
- making it tangible by case studies
- receiving your questions, feedback, further inputs

WAY ONWARDS:


- search & invitation for further contributions (e.g. UK and East European countries)
 - draft summary (to be ready for CF-autumn-meeting)
 - *Final outcome (envisage): Policy brief
“Managing diffuse soil contamination”*
-
- 

TERMINOLOGY: QUESTIONS 1 to 4

- Q1: What is “diffuse soil pollution/contamination” in your country/region?**
 - **If your national policy has a specific definition, please provide the definition.**

 - Q2: What does "soil background values of pollutants/contaminants" mean in your country/region?**
 - **If your national policy has a specific definition, please provide the definition.**

 - Q3: Do you distinguish between "diffuse pollution/contamination of soil" and "soil background values of pollutants"?**
 - **If yes, please explain the difference**

 - Q4: Do you include "diffuse pollution/contamination of soil" in your polluted/contaminated sites program?**
 - Please explain.**
-
- 

Q1: Diffuse soil pollution & national policies

PERSONAL SUMMARY

- ◆ **general awareness**
- ◆ **no legislative definitions**

- ◆ **various general descriptions**
 - **hardly a common language/understanding**
 - **Babylon?**

- ◆ **accounting for similar aspects, like**
 - **e.g. scales, intensity of contamination, impacts, sources**

Q1: National policies – e.g. SWEDEN (1)

- ◆ **Diffuse pollution is considered to be nationally, regionally or locally elevated and not clearly delineated concentrations of pollutants which cannot be attributed to a point source, e.g. a historical industrial activity/site or accidental release/spill of contaminants.**

Q1: National policies – e.g. SWEDEN (2)

Other definitions relating to diffuse soil pollution/contamination (Swedish EPA, Report 5978, 2009):


- ◆ **Diffuse pollution source:** A source of contamination that cannot be well defined.
- ◆ **Diffuse pollution contribution:** The part of an elements/contaminants occurrence that cannot be attributed to a point source.
- ◆ **Diffuse pollution discharge:** Discharge of contaminants where the migration patterns of the contaminant cannot be well defined. The source of the discharge may be a point source or a diffuse source

Other sources (1)

GSOP 2018 (Concept Note)

Diffuse soil pollution, on the other hand, is the presence of a substance or agent in the soil **because of human activities** emitted from moving liquid or gaseous sources, covering a large area, or from multiple sources. Diffuse soil pollution is therefore caused by dispersed sources and occurs where emission, transformation and dilution of pollutants has occurred in other media prior to their transfer to soil.

The **three major pathways** responsible for the introduction of diffuse pollutants into soil are **(i) atmospheric deposition, (ii) agricultural inputs, and (iii) flood events**. Causes of diffuse pollution tend to be dominated by the transport of pollutants by erosion processes (wind and water erosion and sedimentation), and **excessive nutrient and pesticide applications, heavy metals, POPs and inorganic pollutants**. As a result, the relationship between the pollutant sources and the level and spatial extent of soil pollution is indistinct (FAO and ITPS, 2015a).



Q2: BACKGROUND VALUES

Common understanding?

Austria:

- ÖNORM S 2088-1: “background value”: concentration of a substance or measured value of an indicator for contamination, which corresponds to **no or negligible anthropogenic changes compared to natural conditions.**

Germany:

- BBodSchV: “background content” shall be the pollutant content in a soil which is composed of the geogenic (natural) basic content of a soil **and the ubiquitous substance distribution resulting from non-point inputs into the soil**

GENERAL QUESTIONS:

- ◆ “content” = “value”?
- ◆ anthropogenic inputs to be included or not?
- ◆ (use as a Environmental Quality Standard: good quality?)

Q3: Background values & pollution

Q4: National programs

- Q3: Do you distinguish between "diffuse pollution/contamination of soil" and "soil background values of pollutants"?**
 - YES: AT, BE (Fl, Wa), CH, ES, FI, FR, GE, IT, NL, NO, SE**
 - interpretation: background values are not deemed aiming (or ready) to indicate whether any ("corrective") management action is necessary**

- Q4: Do you include "diffuse pollution/contamination of soil" in your polluted/contaminated sites program?**
 - YES: 8 positive answers**

Other sources (2/1)

ISO 11074 “Soil quality – Vocabulary”

4.4.2 diffuse source input

input of substances from moving sources, from source with a large area or from many sources

4.5.1 contaminant

substance or agent present in soil as a result of human activities

4.5.3 pollutant

substance or agent present in soil (or groundwater) which due to its properties, amount or concentration causes impacts on soil functions or soil uses



Other sources (2/2)

ISO 11074 “Soil quality – Vocabulary”

4.6.1 background concentration

... arising from both natural sources and non-natural diffuse sources such as ...

4.6.2 background value

expression of the upper limit of the background concentration expressed by means of statistical characteristics

4.6.3 critical concentration; 4.6.4 critical load

4.6.13 usual background value

statistical characteristic of the usual content of a substance

4.6.16 / 4.6.17 natural background concentration / value

