

Indicator Fact Sheet Signals 2001 – Soil

YIR01SO02 Expenditures for cleaning-up of contaminated sites

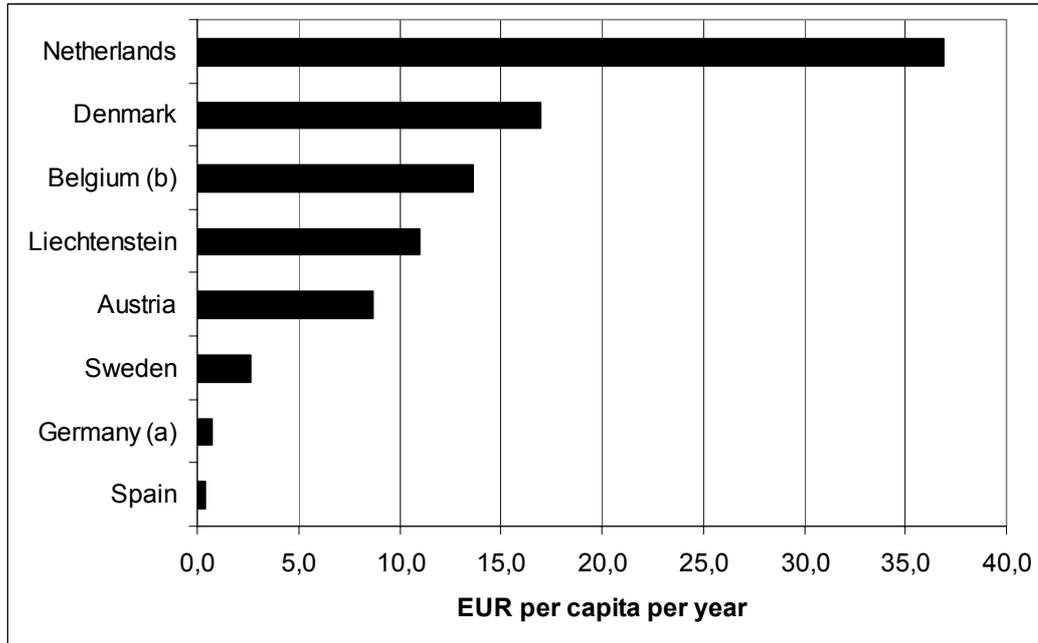


Fig.1 Annual expenditures for contaminated sites remediation in selected countries

Notes: (a) Germany: projection from estimates of expenditures from some of the Länder
 (b) Belgium: data refer to Flanders

Source: EEA-ETC/S Data update request (August 1999, updated January 2001)

☺ Key message

There is an almost 100-fold difference in annual clean-up expenditures per capita among reporting countries and expenditure per country cannot be related to the number of sites.

Although the polluter pays principle is generally applied, a considerable amount of public money will have to be provided to fund remediation programmes.

Results and assessment (level of the indicator)

Relevance of the indicator for describing developments in the environment

Several countries have tried to estimate total national clean-up costs. The estimates are not comparable, but they are important indicators of the attention paid by each countries to the remediation of contaminated sites.

In principle, the more a country spends on remediation, the greater the chance of minimising environmental degradation and risk. However, a high spend in one country might reflect the scale of the problem in that country.

Assessment

There are no comparable data on progress with remediation that cover an appropriate period.

The data may be indicative of different levels of awareness regarding soil contamination problems, but the link between expenditure and environmental need for remediation is highly dependent on national standards, targets and local site conditions.

There is an almost 100-fold difference in annual clean-up expenditure (public and private) per capita among reporting countries. In general, all countries apply the 'polluter pays' principle to various degrees. Additionally, public money is made available to fund remediation activities. Differences between countries are due partly to the fact that information on private expenditures is scarce. They also reflect the scale of the problem in each country and the different standards being applied, rather than the level of concern or the political will to deal with the problem.

Site-to-site differences and the range of national remediation approaches and targets preclude useful comparisons of total expenditure per single site. Remediation costs are in average ten times higher than site investigations costs.

Breakdown of costs (investigation and remediation costs) is available for Austria, Belgium Flanders, Sweden and Liechtenstein. Investigation costs are between 9 and 17 % of total expenditures; remediation costs range from 83 to 91 % of the total.

Data

Table 1 Annual expenditures for contaminated sites remediation in selected countries (EUR per capita per year)

	Total Expenditures (Million EUR)	Population (Million inhabitants)	Euro per capita	total area
Austria	67	7.7	8.7	83860
Belgium-FI	78.6	5.8	13.6	13511
Denmark	90	5.3	17	43090
Germany (a)	57	79.4	0.7	356970
Liechtenstein	0.33	0.03	11.0	160
Netherlands	550	14.9	36.9	37330
Spain	14	38.9	0.4	504795
Sweden	23	8.8	2.6	449960

Notes: (a) Germany: projection from estimates of expenditures from some of the Länder
(b) Belgium: data refer to Flanders

Source: EEA-ETC/S Data update request (August 1999)

Table 2 Breakdown of clean-up costs in selected European countries (Million EUR)

Country	Site investigation	Clean-up measures	Total
Austria	7 (10%)	60 (90%)	67
Belgium (a)	14 (17%)	65 (83%)	78,6
Liechtenstein	0,03 (9%)	0,3 (91%)	0,33
Sweden	3 (13%)	20 (87%)	23

Source: EEA-ETC/S Data update request (August 1999)

Note: (a) Belgium: data refer to Flanders

Meta data: clean-up expenditures

Technical information

1. Data source

EEA-ETC/S Data update request (August 1999)

2. *Description of data*

3. *Geographical coverage*

Selected EU countries

4. *Temporal coverage*

Historical time series are not available. Data refer to the most recent year. In most cases the expenditures refer to 1996.

5. *Methodology and frequency of data collection*

Survey by questionnaire.

6. *Methodology of data manipulation*

Total annual clean-up expenditures per country converted into expenditures per capita.

Quality information

7. *Strength and weakness* (at data level)

Strength: when representative data on a small scale are available extrapolation on national level is possible.

Weakness: high dependence on the estimation of the costs (no exact data available); access to data is often not possible (e.g. regarding private investments).

8. *Reliability, accuracy, robustness, uncertainty* (at data level)

Reliability of the data highly depends on the quality of the data survey (investigation method)
Quality of collected data increases when there are central institutions (local and national) for financing and funding of measures and when surveys about financial expenditures are available.

8. *Further work required* (for data level and indicator level)

Further work is needed on the exact definition of the indicator.

More detailed information on costs, which have to be based on more and exact data on the kind of expenditures (only remediation costs or including follow-up costs for monitoring, after-care and change of land-use type). Improve data collection / estimation in selected areas and collection of data/estimation at the national level.