

# Annex F: Comments on test data collection for contaminated sites, Denmark

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## Feedback on data collection, County of Northern Jutland, Denmark

8 November 1999/Søren Bagger

### 1. General reception of the data collection

The questions are easily understood and make good sense compared to the way contaminated sites are administered in Denmark.

Most data already exists in a database, other electronic forms, documents, etc. Some data are taken directly from these while others have been deduced from the database. This means that no data in the test collection are conjectural.

Only impact levels 0 and 3 are used specifically in the County of Northern Jutland. We are however able to deduce the other levels by analysing existing data. We use results from preliminary investigations, information on land-use and drinking water resources combined in a geographic information system (GIS).

The impact levels seem to be a good way to get an overview at a national or European level. However, in Denmark, the counties need a more specific classification, especially at level 3.

The list of branches seems relevant, as about 90 % of the branches have been operating in the County of Northern Jutland.

The national priority is based on experience from about 1 100 preliminary investigations in the region.

### 2. Data situation of the test region

About the potentially contaminated sites, the data situation in the County of Northern Jutland is well above average compared to the rest of the country.

About the sites with considerable contamination detected (impact levels 2 and 3), the data situation in the County of Northern Jutland is average.

### **3. Feasibility of a regular data collection**

If this work ends up defining exactly which data are needed for the EEA system it will take only a minor effort to adjust our database to contain these data. It will, however, take some time to fill in the database.

The counties in Denmark only administrate about 50 % of the contaminated and potentially contaminated sites. The rest are administrated by the municipalities. This means that only half the sites in the data collection concerning potential contamination have been assessed specifically.

On 1 January 2001, a new act was put into force giving the counties the administration of 95 % of all sites. This means the questions about levels of completion will change to a lower estimate in the following years.

I think there are many differences between the countries in Europe that will blur the picture as shown above. The data collection will have to consider this in some way.

#### **Comments on some parts of the data:**

(referring to the numbering in the data collection)

1. The drinking water supply does in fact involve only about 60 waterworks operated by the authorities and only about 440 private cooperative societies. Still, about 12 500 private wells are supplying one or two households.

In the County of Northern Jutland, a total of about 100 million cubic meters of water per year are being used. 60 % is used for drinking water, the rest for industries, agriculture, fish farming, etc.

- 2.3 The remediations are paid for partly by private parties and partly by the authorities. We expect that not all of the privately paid remediations are known to the authorities. The authorities only pay for remediations on sites at impact level 3.
- 2.4 The size of the contaminated area is mostly used if the exact area can be seen in areal photos (waste sites in former gravel pits) or if it can be made probable that only a part of the site was used for the polluting activity (fences, streams, etc.). Otherwise, the size of the property is used.
- 3.1 Cost range per site is average for the region concerning preliminary surveys and investigations. Main site investigations and remediations are average for all of Denmark.

# Annex G: Comments on test data collection for contaminated sites, the Netherlands

## Some remarks from the Netherlands on the design of the questionnaire 'Test data collection on contaminated sites'

Esther Sóczó and Kees Versluijs, RIVM, Bilthoven, the Netherlands

Participation in the 'test data collection' is a useful experience because the international perspective makes you realise more clearly what the state of the art in your own country actually is. However, the completion of the questionnaire took more time than expected (because of collaboration with the parties involved and discussion about the definitions).

### General reception of the test data collection

Generally, a philosophy on the strategy of the monitoring should be stated more clearly. A better determination for data collection is necessary (start year/progress). A choice has to be made between recording the progress on the basis of the actual number of contaminated sites in a (basis) year (contaminated minus remediated, as done in the Netherlands questionnaire) or on the basis of the total number of contaminated sites determined over the years.

According to the Dutch soil policy, no clear distinction can be made between impact levels 0 and 1. A distinction between sites remediated to level 1 or 2 cannot be easily made with the current data systems of the responsible parties.

*Descriptions/explanations are not in every case unequivocal.*

It is difficult to pinpoint a number of potentially contaminated sites. There is a big difference in numbers between the stages of the survey. Preliminary surveys have an early stage with many possible sites and (after several identification steps) a final stage with a reduced number of sites. In the Netherlands, both stages are not finished yet

Cost ranges per site, in terms of the smallest and the largest costs, vary immensely. Preliminary surveys generally consider a large number of sites, thus cost range per site can only be a rough estimation. In the cost range per site for remediation, 'extensive' sites (more than 10 million in the Netherlands) are excluded.

The completion of Table 4 (priority of industrial branches) reflects only expert knowledge and not any nationally adopted system in the Netherlands (as the head of the table may suggest).

### Data situation of test region in relation to the rest of the country

In principle, the data collected for the test region can also be collected for the other regions (provinces) of the Netherlands. There is some difference between the provinces regarding the stage of the identification of potential contaminated sites and the registration of data on the different impact levels.

The following data are not (or only partly) available at this moment: the type of contaminated sites, the size of contaminated sites and data on different impact levels.

### **Feasibility of a regular data collection on a two-year basis**

In the Netherlands, (a limited) monitoring of contaminated sites has been taking place for several years. Data on contaminated sites are collected by responsible parties on a regular basis, yearly. In principle, data for ETC/Soil can be collected on a two-year basis.

The system for monitoring is improving at the moment (see more information below).

### **State of the art monitoring**

The monitoring of the extent of the soil contamination and the progress of the soil clean-up operation have represented an important issue in the Netherlands the last few years (see national goals of the NMP below<sup>1</sup>). Monitoring is a joint action of the public and local government. The data are collected by the responsible parties (namely the 12 provinces and the four major cities) in their (partly uniform) data systems. The data collected by the responsible parties are integrated and used by the National Institute for Public Health and Environment (RIVM) on behalf of the 'Environmental balance report', published yearly since 1986.

In the last two years, the parties mentioned above, together with the RIVM, have been working on the development of a more comprehensive monitoring system to be able to evaluate the realisation of the national goals and to manage the clean-up operation. The implementation of this new monitoring system in respect of new indicators for (clean-up of) contaminated sites started in 1999. The (main) indicators are as follows:

- potentially contaminated sites
- contaminated sites (seriously contaminated/urgent sites)
- remediated sites (including type of remediation)
- remedial expenditures (also average remediation costs)
- use of financial and legal instruments by remediation.

A 'pilot' with these new indicators will be presented in April 2000. In the future, the results of the monitoring will also be reported yearly by the responsible parties and by the RIVM (on national level) in the 'Environmental balance report'. A new (more uniform) national data system is being jointly developed by the responsible parties.

<sup>1</sup> The main targets of the Dutch national environmental policy plan (NMP) are: to quantify the extent of the soil contamination by 2005, to remediate all urgent contaminated sites and to permanently manage all non-urgent seriously contaminated sites by 2022.

## Other suggestions

Clear monitoring strategy (see scheme):

- ‘remediation expenditures’ are missing.

Better definitions:

- for potentially contaminated sites (distinction between ‘estimated’ and ‘identified’);
- for cost range per site (percentiles instead of extremes (e.g. 25- and 75-quantiles the median) and distinction between ‘normal’ and ‘expensive’ sites).

Distinction between ‘historical’ and ‘new’ sites (1987 in NL)?

Distinction between historical sites remediated by authorities or by private parties?

# Annex H: Comments on test data collection for contaminated sites, Norway

## Norwegian comments to data requested

(The numbers refer to the questionnaire. OK means we expect data can be provided.)

1. OK, perhaps not quite sufficient on drinking water supply, but site relevant.
- 1.1 OK.
- 1.2 We feel it is necessary to have a clear definition of "abandoned" to meet this point.  
In Norway we refer to these sites as sites without legal owners. Hence we have very few. If you could explain your expectations as to the definition, it would certainly be helpful.
- 1.3 OK.
- 1.4 OK, but we cannot provide information at this detailed level. Simplified presentation can be supplied as to whether a site is registered as managed in survey, investigation or remediation step.
- 1.5 OK.
- 2.1 OK.
- 2.2 The Norwegian ranking system is based on existing information – only very seldom on actual investigations. It is also non dynamic; this means we never rerank a site, but handle cases from the first investigation in a separate system, like what is registered under number 1.4.
- 2.3 OK.
- 2.4 OK, we almost always consider size of contaminated area, but when a site is developed (construction work etc.), it may be limited/restricted to the property (partly clean up). We don't always have the size of a site recorded.
- 3.1/2 We rarely have the information on the costs. Most often the site owner don't want to give this kind of information.
- 4 For deposits we often cannot inform about industrial branches. Otherwise OK.

### General comments:

- For risk evaluation the counting of population does not make much sense (amounting to an average of capita per site), because it is the actual exposure of capita involved on a site that matters.
- The type of conflict (possible conflict) would be of interest, like threat to human health or to the environment
- It is a point to have the level of details on for instance:
  - \* types of sites
  - \* investigation phases->(survey-investigation-site completed with/without remediation and restrictions on land use)
  - \* remediation technologies
  - \* costs as a sole economic parameter seem less meaningful to us.Lots of other information would be needed to explain the costs, like the location of the site, prices on real estate, to what extent you can exploit a property etc. Also the remediation costs are not readily available in our database. I think some explanation for this data requirement would be useful.