

# THE PRELIMINARY IDENTIFICATION AND INQUIRY OF CONTAMINATED SITES AT TIMIS COUNTY LEVEL

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**Abstract:**

*The paper presents the way of inquiry, sites preliminary identification that is possible to be contaminated, on the base of some questionnaires that have been filled of local public administrations and also economic agents, at Timis county level, during year 2008, according to 1 and 2 Annexes of GD no.1408/2007. Here are presented and the responsibilities regarding costs for regenerating measures of geologic environment.*

**Key words:** contaminated site, preliminary inquiry, detailed evaluation, costs.

**JEL classification:** Q56

A contaminated site is an area geographically defined, with limits for surface and depth, polluted with biologic or chemical substances.

In the case in which the polluter has left the contaminated site, the site will be called abandoned site and in case in which the polluter of contaminated site is not known, the site will be called orphan site.

**Preliminary identification of contaminated sites:**

- According to article 9(2) from GD no. 1408/2007, preliminary identification of contaminated sites is realized by National Agency for environment Protection through the institutions that is operating (Regional Agencies of Environment Protection, Local Agencies for Environment Protection) on the base of questionnaires filled by economic operator or land owner, of existent documentation at the stream of regularization act and annual reports realized of Pedological and Agrochemical Studies Office.

In 2008 was realized the preliminary inventory of potential contaminated sites al Timis county level, on the base of the analysis of answers at questionnaires from 1 and 2 Annexes of GD no. 1408/2007 and of existent information from regularization files.

The situation of sent questionnaires to economic operators/local public administration authorities and the number of reached answers from those is presented in table 1 and the situation of the possible contaminated sites is presented in table 2.

Table 1

Situation regarding questionnaires sent to economic operators/local public administration authorities and the reached answers

	Economic operators	Local authorities
No. of sent questionnaires	90	95
No. of reached questionnaires	76	75
Answers reached from the questionnaires	84,44	78,95

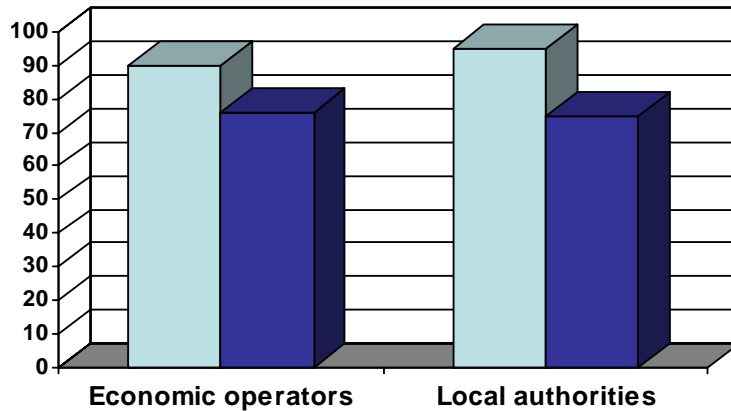


Fig. no. 1. Situation regarding questionnaires sent to economic operators/local authorities and the reached answers

Table 2

Situation regarding preliminary inventory of possible contaminated sites

	Economic operators	Local authorities
No. of possible contaminated sites	11	3
Total	90	95
% of possible contaminated sites	12,22	3,16

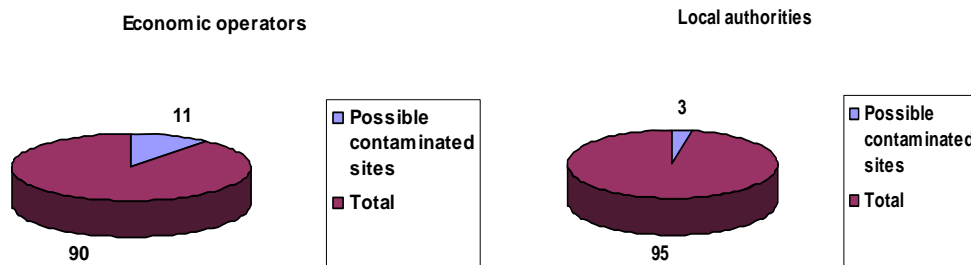


Fig. no. 2. Situation regarding preliminary inventory of possible contaminated sites

Determined soil quality indicators have been compared with portals from Order no. 756/1997.

**The purpose of preliminary inquiry** is to establish the existence and intensity of geologic environment through analyses, geologic analyses, geochemical and geophysical measurements.

Soil and subsoil pollution inquiry is realized in the following cases:

- at the state of a dangerous potential pollution for people and environment health
- at the elaboration of environment balance
- at the establishing of environment obligations, in chase of changing juridical statute of fields on which have been developed an activity with impact on environment
- at the identification of a potential pollution source for soil and subsoil

- for contaminated sites pursuant evolution in time of which reparation is realized through natural dilution or long time reparation methods
- at sites monitoring after cleaning programmes closing, reparation and/or ecologic reconstruction
- at accidents production that conduct to field pollution, after moving away the source and polluters that have been overflow in the geologic environment

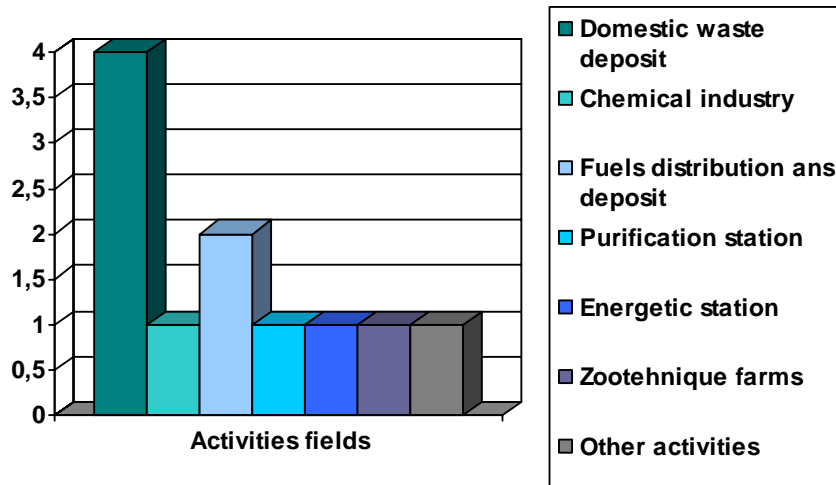


Fig. no. 3. Possible contaminated sites distribution on activity areas

The inquiry works are realized of physical or juridical persons, that have a qualification document which certifies the quality and competence of specialist/specialized firm in geologic and pedologic sciences area.

The inquiries results are contented in a Rapport.

The preliminary inquiry and evaluation geologic rapport of geologic environment pollution is forwarded to the competent authority for environment protection that have established the need of realizing it, following that in function of it's content and result to pass to next stage, that one of DETAILED EVALUATION of soil pollution.

The purpose of detailed inquiry and evaluation is spatial limitation of polluted area, clarification of identified pollution nature and intensity, polluters relation with the mineral matrix of rocs and geologic environment structure, pollutants transport and migration ways and evaluation of geologic risk, data that are needed for elaboration of regeneration of geologic environment.

Detailed inquiry and evaluation results are contented in final geologic rapport of geologic environment pollution inquiry and evaluation, that is presented at the environment protection competent authority.

After the analysis of evaluation and inquiry final geologic rapport of geologic environment pollution, the environment protection competent authority decides if the geologic environment pollution from settlement has a significant impact on people and environment health and requires to economic operator or land owner the elaboration of risk evaluation study, according to specific legislation that exists today.

#### ENVIRONMENT REGENERATION DECISION

On the base of environment regeneration decision, economic operator or land owner elaborates the feasibility study and ethnic project for cleaning, regeneration

and/or ecologic reconstruction or minimizing existing risks in affected area, in the established term by the environment protection competent authority.

The regeneration of geologic environment and of terrestrial ecosystems that are affected subsist in bringing them as close as possible to natural condition, through the application of some cleaning measures, ecologic remediation and/ or reconstruction, complementary and cancellation and through the elimination of any significant impact risk on those, according to the category of land use.

If the environment protection competent authority has established the utilization restriction of the land that is placed on contaminated site, this is enlisted in cadastral documents by local public administration authorities.

Local public administration authorities are obliged to realize physic and warning barricade systems for the application of restriction regime.

At the end of technical project for cleaning, ecologic remediation and/or reconstruction, the environment protection competent authority notifies local public administration authority on the restriction arise, for the land to be reused.

#### **Geologic environment regeneration measures costs**

The polluter has the obligation to bear the regeneration measures costs of the contaminated sites and terrestrial ecosystems geologic environment, that are the object of a feasibility study and of a technical project, elaborated after realizing the soil and subsoil pollution inquiry and evaluation.

For contaminated sites that are placed on industrial units settlements or agricultural of state that are in function , also and for contaminated fields nearby these ones, for which is proved that pollution was realized of those ones, the costs of geologic environment regeneration of contaminated sites and of terrestrial ecosystems are assures from sources of those units.

For contaminated sites that are placed on industrial units settlements or agricultural of state which are in conservation , in the case of restarting the activity, the regeneration costs of geologic environment is assured from the sources of those units.

For contaminated sited settled on state public domain that are in the public institutions administration, the costs of regeneration measures of contaminated sites and of terrestrial ecosystems are assured from their own incomes an/or state budget, in function of the financing way, through the budget of central public authorities under/coordination that works those ones, or through structural or cohesion funds, through approved projects for financing according to implementation rules for these funds.

For contaminated sites localized on industrial units settlements or private agricultural settlements that have privatized with environment obligations, also and for contaminated lands that are nearby those ones, for which is proved that the contamination have been realized of those ones, the costs of geologic environment regeneration costs of contaminated sites and of terrestrial ecosystems are assured from own resources of the owner of these industrial or agricultural units, according to the principle „the polluter pays”.

For contaminated sites localized on industrial or private agricultural units settlements that have been privatized without environment obligations, also for contaminated lands that are nearby those, for which is proved that the pollution have been realized of these ones, the regeneration measures costs of contaminated sites geologic environment and of terrestrial ecosystems are assured from own resources of the owner of industrial or agricultural units that have produced the pollution, according to the principle „polluter pays”, or from structural and cohesion funds, through approved projects for financing according to implementation rules of those funds.

Regeneration measures costs of contaminated sites geologic environment and of terrestrial ecosystems include and the monitoring costs, that are supported by the land's administrator.

In case in which the geologic environment pollution is caused of manner economic operators, the participation percentages at the total cost for regeneration are established inside the feasibility study and/or technical project for cleaning, ecologic regeneration and/or reconstruction.

In case of pollution with dangerous substances and preparations, due to not respecting their regime, the costs of regeneration measures of contaminated sites geologic environment and of terrestrial ecosystems are supported by the producer, transportator or user of dangerous substances or preparations.

### **Conclusions:**

For the future is very important to have a healthy environment with clean soils not contaminated. The preliminary identification of contaminated sites is a start in this field and in the future we hope that we will have an exactly situation. The costs for the environment regeneration will be very huge, because in the last years the soil pollution was a big problem for some economic operators.

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