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State-of-the-Art in the Management of Geopolluted (contaminated) Sites in Lithuania

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In 1997, the Lithuanian Geological Survey (LGT) developed a program to form an inventory of potentially contaminated sites (PCS) and the Data base of PCS was created in 1998. By the end of 2015, the Data base of PCS was maintaining information about more than 12,000 potentially contaminated sites. By the hazard evaluation it was detected, that 30% of inventorised potentially contaminated sites are possibly environmentally hazardous and about 10% are extremely hazardous.

According the evaluations, the area (groundwater and / or soil) potentially polluted with chemical substancies could reach 280 km², or 0.43% Lithuanian territory. Potential for pollution is high and very high in an area of 115 km². Main pollutants are oil products, contaminating more than 40% of all PCS areas. About a fifth part of those areas may contain pollution from pesticides, heavy metals and other specific compounds – polycyclic aromatic hydrocarbons, halogenised hydrocarbons, detergents, phenols and others.

Since 2000 the legal basis intensified the foundation of groundwater monitoring systems and monitoring activities of economic entities, inventory of potentially contaminated sites, ecogeological research, remediation and pollution prevention.

Inventory includes collection of information on type of activity on site, amount of hazardous substancies stored on site, etc. Sampling of soil and groundwater aren't obligatory in inventory stage. To prove contamination it is necessary to carry out preliminary and detailed ecogeological investigations of site – sampling of groundwater and soil.

Since 2008 when the new order for ecogeological research came into effect, about 950 preliminary and detailed ecogeological investigations and about 70 remediations of contaminated sites were performed.

2010–2015 ecogeological investigations – 250 preliminary and 100 detailed site assessments were carried out by LGT. The goals of this project are to make an inventory of potentially contaminated territories, to do their investigations and to prioritize them for remediation. Investigations in the realm of this project were carried out in areas with abandoned, inactive sites on national grounds, which threaten the environment and health health and blight the landscape. Successful completion of this project by the end of 2015 will result in the determination of potentially contaminated and contaminated territories in Lithuania, with a prioritization of sites for remediation. The results of the project will be used for development of Contaminated Land Management Strategy and to plan financial resources necessary for implementation.

