Urban Geochemistry-Prague

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Urban Geochemistry Project (URGE) forms a part of one of the main topics being currently investigated by the association of European geological surveys–**EuroGeoSurveys**–EGS Geochemistry expert group. The objective of the URGE project is a detailed study of level of soil pollution by hazardous trace elements in large European cities and evaluation of the associated health risks.

The main aim of this work is a detailed study of the distribution of harmful trace elements in the area of the city of Prague and an evaluation of possible health risks.

The topsoil samples were collected at 120 sites around the city center of Prague. The soils samples were prepared and analyzed according to the instructions from the EuroGeoSurveys URGE Project [1].

We can distinguish few basic sources of the studied elements on the basis of their surface distribution and their representation in the topsoils of the individual city environments: area and point sources. Point sources are old ecological loads, mainly in the area of Brownfields. On the other hand, fundamental area source of studied elements in Prague topsoils seems to be emissions of solid substances, mainly from stationary source. The result suggest that significant area source of studied elements in the topsoils can be affected by traffic.

[1] EGS, 2014. EuroGeoSurveys 2013 annual report. (www.eurogeosurveys.org.).