THE PHYTOREMEDIATION APPLICATION IN ABANDONED URBAN BROWNFIELDS

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Abstract
The abandoned brownfield are associated not only with degraded landscape but also with polluted or even contaminated soil. The brownfields in Baltic region mostly are areas with industrial ruins. The one of challenge is to remediate urban brownfields in acceptable way for society, owner and local municipality. This study investigate three brownfields in Latvia and Lithuania. The objective of the research is to develop, new knowledge for innovative and environmental friendly regeneration of brownfields using Triple Helix concept. In the research innovative approach of phytoremediation is used for a first time for cleaning and revitalizing of soils of brownfields in Latvia and Lithuania. There is three brownfield territories revitalized within the research project: first territory of former linen factory in Kraslavas Street 1, Ludza with total area 8.97 ha, second territory of former Kazitiškis heating plant in Kazitiškis sub-district, Ignalina district with total area of 385 m^2 and third territory of former Oil products station in Naivių village, Skapiškis sub-district, Kupiškis district with total area of 313 m^2. The investigation of brownfields were made by environmental engineers, landscape architectures and botany experts. The phytoabstraction will be applied in linen factory territory to remove nitrogen pollution from diches and pounds, the phytostabilisation will be applied in heating plant territory after excavation of crude oil spill and the phytodegradation will be applied to reduce oil pollution.

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