Ecological Solutions of Contaminated Environment Remediation from Uranium Mining Activities in Romania.

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The use of constructed wetland for bioremediation purpose in Romanian uranium mining industry could be an innovative solution that complies with the social, economic and environmental context.

In order to improve wastewater from uranium mining industry and at the same time the environmental conditions, this paper aims to demonstrate the constructed ecosystems efficiency and to examine its ecological and socio-economical aspects through an implementation plan based on analysis of governance, policy, costs and financing options.

The paper is directed at developing knowledge for the innovative use of this function and for the benefit of uranium mining wastewater management, moreover it will generate directly targeted knowledge to support practical and political governance.

The paper research will generate the elaboration of a new national technology for uranium waste water and contaminated soil remediation based on using of biophytodepuration processes.

It is an energy efficient pleasing method of sites remediation with low to moderate levels of contamination and it can be used in conjunction with other more traditional remedial methods as a finishing step to the remediation process.

This technology will allowed a removal rate of heavy and radioactive metals about 95% comparing with 60 – 70% for conventional treatment.