

PHYTOREMEDIATION A STEP TO CIRCULAR ECONOMY IN BALTIC SEA REGION

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Abstract

One of key activity in the Baltic Sea Region strategy is in transition from linear economy to circular economy. The one of the first step to circular economy is to reduce flow of potentially recyclable material and substance flow to waste pool. The one of possible solution is phytoremediation. The aim of this study is to highlight phytoremediation advantages and limitations in circular economy context at Baltic Sea Region. The first task is to identify phytoremediation technologies for soil and groundwater remediation, second task is to evaluate phytoremediation technologies in Baltic Sea Region context, third task is to give recommendation for land owners, municipalities and governments for phytoremediation technologies application. The results show high potential of phytoremediation technologies in non-point source pollution reduction in agricultural sector. The high potential of phytoremediation technologies application is in decentralized sewage water management systems. The circular economy approach can be applied to digester, wood ash and sewage sludge phytoremediation integration in renewable energy sector by wood chips production. The phytoremediation show high potential as circular economy driving force in Baltic Sea Region.

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