



Extended Abstract Adapting Spontaneous Flora for In-Situ Soil Remediation ⁺

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1. Introduction

The extractive industry occasionally faces incidents that lead to soil contamination with specific products in the proximity of extraction sites. In general, such punctual problems are treated, through out-site methods, which involve the excavation of the affected soil and its treatment in dedicated units [1]. Within the CleanTech Project, funded under the frame of POC 2014–2020 Structural Funds Programme, clean technologies to remediate contaminated sites are developed, by adapting specific biomass types that are able to restore the native soil characteristics [2]. In this paper, remediation of clay-based soil polluted with reservoir water was approached by cultivation of *Salicornia* sp. and *Suaeda* sp. sampled form natural sites like Lacu Sarat (Braila county).

2. Materials and Methods

For this study, the plant species were sampled form Lacu Sarat in three stages of development: early stage, mature stage, and at the end of the life cycle.

3. Results

It was found that, despite the longer time required for effective results, on-site decontamination technologies are not only cleaner, but contribute to restoring the soil microbiome.

4. Conclusions

Spontaneous flora species such as *Salicornia* and *Suaeda* were proven to be effective in managing the level of chlorides in the tested real environment, as it can be seen in Figure 1.



Figure 1. Spontaneous Salicornia sp. and Suaeda sp. from Lacu Sarat adapted on affected soils.

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