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Evaluation of Capacity of Bed Planted with Macrophytes for Wastewater Treatment of Biskra City, Algeria

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Abstract : It is question to study and to value the possibility of settling the process of purification by plants (constructed wetland) to treat the domestic waste water of Biskra, city in a semi-arid environment with grave problems of. According to the bibliography, the process of treatment by plants is considered as more advantageous than the classic techniques. It is the use of beds with macrophytes where the purification is made by the combined action of plants and micro-organisms in a filtering bed. The micro-organisms which are aerobic bacteria and\or anaerobic have for main function to degrade the polluting materials. Plants in the macrophytes beds have for function to serve as support in the development of bacteria and to favour also their development. In this study, we present a preliminary experimental analysis of the potentialities of treatment of some macrpohytes plants, implanted in basins filled of gravel. Analyses physico chemical and bacteriological of the waste water indicate a good elimination of the polluting materials, and put in evidence the purifier power of these plants, in association with bacteria. The obtained results seem to be interesting and encourage deepening the study for other types of plants in other conditions.

Keywords : constructed wetlands, macrophytes, sewage treatment, wastewater
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