



Contribution to the study of pollution of soil and water in Oued El Maleh area (Mohammedia, Morocco)

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In Morocco, diffuse ground and surface water pollution in irrigated areas has caused an increase in the risk of water and soil quality deterioration. This has generated a health and environmental risks. The present study was carried out in the Oued El Maleh region located 65 Km to the south of Rabat on the Moroccan Atlantic coast. It covers a surface area of 310 km² where agriculture constitutes the main activity of the population. This region is considered as a very important agricultural area, known nationally for its high potential for market gardening. This intensification has been accompanied by an excessive use of agrochemical inputs and poor control of irrigation and drainage. Consequently, salinization phenomena and deterioration of soil structure as well as water are about to create an alarming situation.

In order to assess the state of pollution of waters and soil in the region, our study focuses on the determination of physicochemical parameters for the quality of water and soil.

The obtained results from sampled wells and surface water show relatively higher values of nitrate and conductivity exceeding Moroccan national standards and revealing net degradation of water quality; therefore the water can be considered not suitable for human consumption and can induce a degradation of soil.

The results of the studied soil show that the pH of these soils is weakly to moderately basic; they are usually non-saline with organic matter content moderately filled. Moreover, very high concentrations of nutrients (potassium, phosphorus and nitrogen) were recorded, highlighting poor management fertilizing vegetable crops in the region of Oued El Maleh.