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Extended Abstracts

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title: **Groundwater contamination by nitrates, salinity and pesticides: case of the unconfined aquifer of Triffa plain (eastern Morocco)**

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Located at the North-eastern part of Morocco the plain of Triffa is under a semi-arid climate. The water resources in this zone are rather fragile and influenced by a highly irregular rainfall distribution, both in time (annual and inter-annual distribution) and in space with an yearly average which does not exceed 240 mm.

In the Triffa plain the impact of anthropogenic activity on the groundwater resources is reflected both by: a) the decrease in the piezometric level due to the over exploitation and droughts; and b) the deterioration of the chemical quality of water. Currently, this situation is felt mainly by the farmers.

The unconfined aquifer is under stress due to increase of the pollution rate, especially nitrates, that is above the WHO standards, and salinity. Pesticides such as aldrin, lindane, heptachlor, etc. (samplings 2007), have also been detected and are indicators showing the need to reduce the pressure on groundwater quality by informing and training farmers on the use of fertilizer and pesticides.



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