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Environmental assessment of Iraq's water system

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Abstract

The main sources of water supply for the Iraq industries and settlements are water resources of Tigris and Euphrates rivers. The settlements, agriculture and industry facilities, primary located along the banks of the main rivers and their tributaries, together negatively influence the surface waters of the region. The search for sources for water supply is a serious problem due to the high pollution of water in settlements, the growing problem of desertification in the region, the reduction of water volumes in the Tigris and Euphrates rivers due to the construction of dams. A major threat to surface water quality is emergency and unauthorized industrial and domestic discharges, which can be extremely dangerous for water sources. Traditional water treatment technologies are ineffective and do not provide reliable drinking water quality for the population. The water system of the Tigris rivers in Baghdad is characterized by a high content of dissolved substances, sulfates, calcium, some metals (Pb, Cd, Hg), bacteriological indicators. Significant pollution is observed in the Euphrates River, for such parameters as turbidity, suspended and dissolved substances, BOD, sodium, calcium, sodium chloride. Heavy metal pollution is noted in some sections of the river near Hill. The objective of this study was to examine and analyze the geoecological condition of water resources of Iraq as the essential source of water supply for the country. The information was gathered from literature, Internet and own research. The study showed that the water resources of all river systems in Iraq were polluted by some physicochemical parameters which do not satisfy to the Iraq standards.

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