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Groundwater potential and sustainable management in the Nile Valley: an overview

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Sudan is dependent upon groundwater aquifers for its supply of water, both for human consumption and irrigation. The present minimum annual requirements of water for human and animal consumption in the rural areas of Sudan are estimated to be 275x106 m3 (23% of this amount is provided from groundwater). About 1381x106 m3 are estimated to recharge from the major basins annually. Only 143x106 m3 of this recharged water is used because of lack of proper policies, technical manpower, inadequacy of knowledge and absence of appropriate research to develop new technologies and approaches. In this chapter, the groundwater resources management in Sudan is presented. It can be concluded that the groundwater potentialities of the basins are extremely high. Finally, large quantities of groundwater are available for future development in irrigation and domestic supply.

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