

Title of Article: Sustainable Groundwater Exploitation in Nigeria

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Abstract: In this study, a critical review of the groundwater resources history and management in Nigeria was done. The aim was to identify reasons why groundwater is increasingly being exploited in recent times, and to explore ways through which the exploitation could be done sustainably. This was achieved through literature review. It was observed that an estimated 60% of Nigeria's population get drinking water from ground resources. This high statistic is mostly the resultant effect of infrastructural decay in the potable water supply sector of the country. In Nigeria, just 14 % of the country's population get regular water supply through piped sources while the remainder of the country's 162.5 million people draw their water supply mainly from surface and groundwater sources. Groundwater, in Nigeria, is accessed mainly in form of shallow (hand-dug) and deep (boreholes) wells. Well water withdrawal activities are mostly un-regulated and, therefore, the water sources are often subjected to avoidable abuses and pollutions. In particular, rapid urbanization, agricultural and industrial activities are major contributors of pollutions to groundwater sources. Also, unavailability of data such as geographical information on water quantity, hydrology, state of aquifer and withdrawal limits have contributed to the unsustainable use of groundwater in Nigeria. It was recommended that proper regulation of groundwater resources and its protection under the land use act of 1978 could be instrumental to its sustainable exploitation.

Keywords: Groundwater, Sustainable, Sub-Sahara Africa, Nigeria, MDG, Exploitation