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SNAPSHOT

Quenching Kenya

Can New Water Discoveries Save East Africa?

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BRAHMA CHELLANEY is a geostrategist and the author of [Water, Peace, and War: Confronting the Global Water Crisis](#) [1] and [Water: Asia's New Battleground](#) [2], which won the 2012 Bernard Schwartz Book Award.

Water scarcity is becoming the defining international crisis of the twenty-first century. Water conflicts rage across the world as communities struggle to secure a clean, reliable supply. One of the world's most water-stressed regions is East Africa. Overexploitation of water resources there has been compounded by declining snowpacks on Mount Kilimanjaro and Mount Kenya, which have shrunk since the late 1980s due to global warming. Meanwhile, Lake Turkana -- the world's largest perennial desert lake -- has largely disappeared from Ethiopian territory, retreating south into Kenya.

In this light, the discovery of two significant aquifers in mostly arid Kenya by a [Japanese-financed UNESCO project](#) [3] has been hailed as a potential game changer. The first, the Lotikipi Basin Aquifer, is situated just west of Lake Turkana. The second, the smaller Lodwar Basin Aquifer, is near Lodwar, the capital of Turkana county. The aquifers were discovered by a French firm, Radar Technologies International (RTI), using a space-based exploration technology called WATEX that was originally designed to reveal mineral deposits. The company blended satellite and radar imagery with geographical surveys and seismic data to detect moisture. Subsequent drilling by UNESCO confirmed the presence of aquifers. Three other suspected aquifers in the region have yet to be verified through drilling.

For parched and economically backward Turkana, more than one-third of whose residents are malnourished, the discovery of major groundwater reserves is a godsend. Not only will the reserves provide lifesaving water, they will also spur the development of agricultural and hydrocarbon sectors and improve the lives of the impoverished residents in this conflict-ridden region, which extends from Kenya into the borderlands of Ethiopia and South Sudan.

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[Home](#) > [Snapshot](#) > [Quenching Kenya](#)

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