

Strategic Groundwater Reserves Found In Drought-stricken Northern Kenya

9/12/2013 6:14 AM ET

An exploration of groundwater resources has identified reserves of water in Turkana County in drought-stricken northern Kenya. The findings were announced at the opening of an international water security conference in Nairobi on Wednesday.

UNESCO said in a press release that the breakthrough was the result of a groundwater mapping project, GRIDMAP (Groundwater Resources Investigation for Drought Mitigation in Africa Program), spearheaded by the agency in partnership with the Kenyan government and with the financial support of the Japanese government.

Two aquifers - the Lookup Basin Aquifer and the Lower Basin Aquifer - were identified using advanced satellite exploration technology. Their existence was then confirmed by drilling, but UNESCO says there is need for further studies to adequately quantify the reserves and to assess the quality of the water.

The discoveries were made by natural resources exploration firm Radar Technologies International, which specializes in large scale exploration using innovative space-based techniques.

The technology combines remote sensing, seismic and conventional groundwater information to explore and map groundwater occurrence over large areas in short periods of time.

The Lookup Basin Aquifer is located west of Lake Turkana, the world's largest permanent desert lake. On its own, Lookup could potentially increase Kenya's strategic water reserves.

The smaller Lower Basin Aquifer could serve as a strategic reserve for the development of Lower, the capital of Turkana County, provided the reserve is confirmed.

Three additional aquifers have also been identified in other parts of Turkana but have not yet been confirmed by drilling. More research needed to enable a more accurate assessment of the aquifers and their potential contribution to Kenya's economic development.

Announcing the findings at the opening session of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation, Kenya's Cabinet Secretary of the Ministry of Environment, Water and Natural Resources Judi Waking said the results were a critical scientific breakthrough for the country.

"The news about these water reserves comes at a time when reliable water supplies are highly needed. This newly found wealth of water opens a door to a more prosperous future for the people of Turkana and the nation as a whole. We must now work to further explore these resources responsibly and safeguard them for future generations," she said.

Stressing Kenya's vulnerability and water insecurity caused by erratic rainfall patterns and the influence of climate change, Waking said more research and investment were now needed to identify and understand groundwater aquifers and improve capacity for monitoring and assessment of these resources.

Of the 41 million Kenyan population, 17 million lack access to safe water, and 28 million do not have adequate sanitation.

At the conference, the Kenyan government also announced the launch of a national groundwater mapping program to be implemented with UNESCO, which would assist county governments in identifying and assessing their groundwater resources.

by RTT Staff Writer

For comments and feedback: editorial@rttnews.com