Groundwater a viable resource for Malaysians

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Credit: CDFID - UK Department for International Development

A report on productive aquifers in hard rock on the west coast of Peninsular Malaysia suggests greater water supply than has previously been recognised. The work, published in the *Pertanika Journal of Science and Technology,* suggests which factors should be taken into account before drilling for industrial and residential water supplies, as groundwater becomes a more important resource worldwide.

Groundwater has been used for centuries, but its usage is still limited to shallow, unconfined aquifers using hand-dug wells, or deeper wells on coarse sand aquifers. With much of the country's industry based on hard rock, Nasiman Sapari and colleagues from the Universiti Teknologi PETRONAS analysed data from 136 industrial tube well drillings into hard rock. They found that these wells could yield up to 890 cubic metres per well per day – though the average was 343 cubic metres. 103 of the tube wells were productive, and the data show that those that penetrate weathered granite were generally non productive so these conditions can be avoided in future. Their analysis of the quality shows it is generally fresh water, with only 9% producing water harder than recommended for drinking. 42% had iron levels lower than the WHO standard.

Readily available groundwater has supported the development of industries and domestic water supply in remote areas. The authors believe that groundwater from fractured hard rocks has high potential to be exploited for water supply.

More information:
www.pertanika.upm.edu.my/Pertanika%20PAPERS/JST%20Vol.%2020%20(2)%20Jul.%202012/16%20Pg%20371-379.pdf

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