ONLINE ISSN : 1880-1404
PRINT ISSN : 0916-717X

Biomedical Research on Trace Elements
Vol. 18 (2007) , No. 1 35-47

Arsenic Pollution in Groundwater of Vietnam and Cambodia: A Review

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(Received: December 4, 2006)
(Accepted: January 5, 2007)

Abstract:
Recently, As pollution was reported in groundwater from the Red River delta of Northern Vietnam and the Mekong delta of Southern Vietnam and Cambodia. Although the health of about 10 million people is at risk from the drinking tube well water, little information is available on the health effects of As exposure in the residents of these regions. Also, the countrywide survey on regional distribution of As pollution has not been conducted in these countries. At present, as far as we know, symptoms of chronic As exposure have not yet been reported, probably due to the relative short-term usage of the tube wells in the regions. However, oxidative DNA damage was observed in the residents of Cambodia and so further continuous usage of the tube well might cause severe damage to the health of the residents. In this article, we review literature concerning As pollution of groundwater and its health effects on residents in Vietnam and Cambodia. The mechanisms of As release to the groundwater is also discussed.

Key words: Arsenic, groundwater, human hair, human urine, Vietnam, Cambodia

JOI JST.JSTAGE/brte/18.35