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Arsenic Pollution in Groundwater of Vietnam and Cambodia: A Review

Tetsuro Agusa¹⁾, Reiji Kubota²⁾, Takashi Kunito³⁾, Tu Binh Minh¹⁾, Pham Thi Kim Trang⁴⁾, Chhoun Chamnan⁵⁾, Hisato Iwata¹⁾, Pham Hung Viet⁴⁾, Touch Seang Tana⁶⁾ and Shinsuke Tanabe¹⁾

1) Center for Marine Environmental Studies (CMES), Ehime University

2) National Institute of Health Sciences

3) Department of Environmental Sciences, Faculty of Science, Shinshu University

4) Center for Environmental Technology and Sustainable Development (CETASD), Hanoi University of Science

5) Inland Fisheries Research and Development Institute (IFReDe), Department of Fisheries

6) Social and Cultural Observation Unit (OBSES), Office of the Council of Ministers

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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



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