



Engineering for the Developing World Seminar Series.



"The Arsenic Crisis in the Developing World: A Sustainable Engineering Solution"

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Environmental Engineering Program
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2.00 - 3.00 pm, Tuesday 15th April, 2008,
Room 2053, Materials Research Laboratory.

Abstract:

In Bangladesh, Vietnam, the eastern part of India, Thailand, Argentina and Mongolia, drinking water drawn from underground sources has been responsible for widespread arsenic poisoning affecting millions of people. Although the genesis of arsenic contamination is yet to be fully understood, natural geochemical weathering of subsurface soil is the sole contributor of dissolved arsenic in groundwater. To this end, the collaborative work between Lehigh University in Pennsylvania, USA and Bengal Engineering and Science University (BESU) in West Bengal, India has been directed toward providing arsenic-safe water in remote villages in affected areas



bordering Bangladesh and India. During the last ten years, primarily through a grant from Water For People (WFP) in Denver, Colorado and private donations, one-hundred and sixty operationally simple, low-cost arsenic removal units have been installed at the existing wells to ensure a supply of safe drinking water. Currently, about two hundred thousand people (200,000) drink arsenic-safe water in this region

The lecture will address how the design of sustainable treatment systems takes advantage of the knowledge of chemistry and engineering principles to attain the highest arsenic removal efficiency with minimum environmental impact and operational complexity.

Host: Professor Roy Smith (roy@ece.ucsb.edu)