In this issue

The biggest arsenic calamity in the world

Dangerously high levels of arsenic are found in the water of tube-wells in 560 villages of seven districts in West Bengal, exposing over a million people to the risk of arsenic poisoning. On **page 976** of this issue, D. Chakraborti, B. K. Mandal and colleagues report these macabre findings of their decade-long (and continuing) study of the arsenic contamination of the groundwater resources in West Bengal. Even more alarming is their observation that over two lakh people currently suffer from arsenic-related diseases, ranging from melanosis to skin cancer. The tale of woe does not stop here. The authors continue to find more and more contaminated wells as they extend their study. These include wells from newly studied regions, as well as some wells that were arsenic-free earlier.

Based on the amount of arsenic extracted per year, the authors suggest that the source is likely to be geological. However, the increased levels of arsenic are probably linked to increasing levels of extraction of groundwater. The possible mechanism of this process is discussed on **page 956** of this issue by Mallick and Rajagopal.

Sudden and violent deaths involving a handful of people from causes such as train accidents, bomb blasts and drinking poisonous illicit liquor attract a great deal of attention, and often instant succor. Prolonged suffering of a much larger number, be it from man-made causes like pollution or natural causes like the drug-resistant tuberculosis bacteria, tend to be ignored. So it is hardly surprising that despite the details about arsenic contamination of groundwater being known for at least nine years, little or no mitigatory action has been forthcoming. It is not as if there are no solutions. Both the articles point out highly implementable and inexpensive action programmes, based on judicious harvesting of rain water – to end on a positive and optimistic note.

N. V. Joshi

Inferring palaeoclimate and sedimentation

Progress made in putting together the picture of how the earth's climate has changed in the past became possible due to ingenious tools that were developed to analyse anything which carried signatures of the past. Particularly useful have been analyses of sediments buried at the bottom of the oceans. When particles (living or otherwise) floating around in the oceans ultimately settle down at the bottom, they carry with them signatures of the environment (sea surface temperature and salinity, for example) in which they floated. In this issue B. L. K. Somayajulu, P. Sharma and A. S. Naidu (**page 1000**) add to the toolbox of the geochemist by demonstrating that the ratio of ^{10}Be to Al atoms in a sediment sample is an useful indicator of the climate during the last approximately million years, when a number of oscillations in the global temperature field occurred. The new tool should be particularly useful in study of the regions where concentration of micro-organisms in the ocean surface is low, regions such as the Arctic and the Antarctic where ice-cover cuts off sunlight and prevents organisms from flourishing.

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