

Arsenic Poisoning of Ground Water in Bangladesh

by Amjad Hossain Khan

The source of the problem has to be identified and remedial measures taken. Sealing of some tube wells and resinking of new tube wells may not be a permanent solution.

SINCE early 1996, arsenic poisoning of the ground water has been reported from Sathkira and Kushtia, western border districts of Bangladesh. The deadly arsenic pollution of ground water has threatened the lives of thousands of people in these districts.

The Public Health Engineering Departments of Khulna tested samples of water from 14 shallow tube wells in Fakirhat and Bagerhat thanas and detected serious arsenic contamination in five of these tube wells.

Table with 2 columns: Location and Arsenic concentration (milligram/litre). Locations include Courtpara, Paschim Majampur, Amalpara, Bheramara, and Mutunhat.

The Executive Engineer, PHED in Kushtia recommended collection of water sample from at least 15 tube wells in each union.

anti-arsenic schemes had done its own survey and found that about 1.54 lakh people were exposed to arsenic poisoning through 1000 contaminated tube wells.

In 1992, a committee of experts from the School of Tropical Medicines, All India Institute of Hygiene and Public Health, Central Ground Water Board, the West Bengal Public Health Department, State Water Investigation, Directorate, and the Centre for Study of Man and Environment, Presidency College was set up by West Bengal Government under the chairmanship of Mr AK Singha, Emeritus professor of Geology at Presidency College.

have reason to suggest a correlation between agriculture and arsenic poisoning. Apparently, the contamination began to be reported after the state of West Bengal began to tap ground water in a big way from the early seventies.

The West Bengal Government had identified 36 arsenic affected zones in the districts of Malda, Murshidabad, Bardwan, Nadia, 24 Parganas North and South. All these zones are located between the Ganges-Bhagirathi river and the western border of Bangladesh.

connected. The authors concluded that the ground water of the region along the south western border belt of Bangladesh is highly vulnerable to arsenic contamination.

In spite of the reports of arsenic contamination of the ground water published in newspapers no systematic study has been taken so far. The Public Health Engineering Departments with their limited resources and equipment have tried to collect water samples from affected tube wells in the western districts.

Dr Khan and Ahmed have suggested to form a study group with hydrogeologists, water supply engineers, environmentalists and public health experts to carry out in-depth investigation. Random sampling without considering the regional ground water flow may lead to erroneous results.

The writer is ex-Chairman, Bangladesh Water Development Board

ADULT LITERACY

The Nature of the Campaign

by Dr Shafi A Khaled

IN seeking to improve the nation's literacy rate, a clearly defined modus operandi must be adopted. Only then the effort is likely to be cost-effective.

They are not subjected to the standard peace-time practice of a two-year long commission. Why should we not view the existing situation in Bangladesh as war-like?

Here, I consider only one element of the modus operandi—the appropriate type of knowledge to impart in the process of the literacy campaign. Is it correct to have an idyllic, broad-based education for all in a resource-poor, late-starting, heavily populated economy?

They may occur here and there. But they will not happen routinely and by design. Bangladesh's Drug policy, ek-mutho-gur, ek-chimti-lobon, adh-sher pani, the Grameen Bank, or the now defunct administrative decentralisation programme are rare instances of its originality.

copy? However, our circumstances are diametrically different from those faced by Japan. They are not even same as those of Taiwan or South Korea. Hence, we are still more limited than Japan in providing a broad-based education for all.

Now, what I have written here is not new to some of the groups already mounting mini literacy campaigns of their own. Also, because the suggestion here relates to 'functional' literacy, it is likely to be appreciated and accepted more readily by those who are its object of attention.

THE Presidency of the United States," wrote John Quincy Adams in 1828, "was an office neither to be sought nor declined. To pay money for securing it directly or indirectly, was in my opinion incorrect in principle."

vided, incumbent Republican George Bush had about \$90 million spent by his campaign or on his behalf, including a public grant of \$55.2 million.

campaigns, collections from candidates and assessments upon officeholders were sufficient to pay the necessary costs. But as campaign costs increased, other sources of funds had to be found.

Andrew Jackson, first elected president in 1828, generally is credited with bringing in the "spoils system," rewarding with favors and government jobs those who had contributed to campaigns.

subsequent court decision, however, severely diminished the impact of the law. In 1925, federal campaign-finance legislation was codified and revised, though without substantial change, in the Federal Corrupt Practices Act, which remained the basic campaign-finance law until they year 1972.

each presidential election year vary according to the numbers of qualifying candidates and their fund-raising appeals. Earlier experience with payout costs were: \$132.6 million in 1984, \$101.6 million in 1980, and \$71.4 million in 1976, the first time there were publicly funded presidential campaigns.

Contribution and Expenditure Limits The 1970s reform laws also imposed contribution and expenditure limits on all federal election campaigns, but the US Supreme Court subsequently ruled that spending limits are permissible only in publicly financed campaigns.

committee. Substantial sums were spent independently in the 1980 presidential prenomination and general-election campaigns, leading some campaign participants to challenge the legality and constitutionality of such spending.

The total cost of electing a president in 1992 was about \$550 million. That sum includes not only the \$220 million spent by or on behalf of the two major political party candidates in the general election; it also includes funds spent by all the candidates who sought their parties' nominations, by the nominating conventions of the parties, and by third-party and independent campaigns.

After the turn of the century, concern over the influence of corporations in the federal election process led to enactment of a number of campaign-finance regulations. The first federal prohibition of corporate contributions was enacted in 1907.

Each time restrictive laws were passed, politicians devised new methods of raising money. As noted, when the assessment of government employees was prohibited, attention swung to corporate contributions.

Individuals, parties and politicians found other ways of raising funds. The feasibility of public financing in the last five presidential campaigns depended on the taxpayers' willingness to earmark a small portion of their tax liabilities—\$1 for individuals and \$2 for married persons filing jointly—for the Presidential Election Campaign Fund by using the federal income tax checkoff on their tax forms.

Individuals and groups also may contribute to political party committees at various levels. Those committees in turn may spend money on behalf of their parties' presidential tickets.

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As the size and population of the United States expanded and the means of campaigning for office developed, the costs of campaigning for office grew correspondingly. In 1860, Abraham Lincoln's winning general election campaign reportedly cost about \$100,000, and his opponent Stephen Douglas's campaign about \$50,000. One hundred years later, John Kennedy's campaign spent about \$9.7 million to defeat Richard Nixon, whose campaign cost about \$10.1 million.

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The Daily Star Entertainment Guide

Thursday 26th September (All programmes are in local time. There may be changes in the programmes)

News 2:30 Time Out: Tomorrow's World 3:00 BBC World Report 3:00 Business Report 5:00 BBC World News 5:10 Newsnight

8:00 MASH 8:30 21 Jump Street 9:30 The X-Files 10:30 The Bold and the Beautiful 11:00 Santa Barbara 12:00am The New Twilight Zone 12:30 Beverly Hills 90210 1:30 The Fall Guy 2:30 El: Behind the Scenes A Time to Kill 3:00 The Oprah Winfrey Show 4:00 Hoopernight 4:30 Home and Away 5:00 The Simpsons 5:30 Gabrielle

Marned To The Mob 18 (Arabic Subtitles) 1:30 Action Colors 18 (Arabic Subtitles) 3:30 Horror: Children Of The Corn 18 (Arabic Subtitles) 5:30 After Dark: Something Wild 18 (Arabic Subtitles)

10:00 Bengali Movie Club Film Show 1:00 Closed

00:30 Di Dekhe Dekhe 01:30 Sur

02:30 Pyar Hi Pyar 03:30 Jeevan Ke Rang 04:30 Dance Dance 05:30 Dil Dekhe Dekhe 06:30 Sur Sargam 07:30 Pyar Hi Pyar 08:30 Jeevan Ke Rang 09:30 Dance Dance 10:30 The Music Show 11:00 Nukkad 11:30 Shatrani 12:00 Top Of The Pops 12:30 Biggie Bad! 13:00 Bhanu 1:00 Best Of The Best 2:00 Jeetendra Special

3:00 Wonder Wings Amar Prem 3:30 Chhatri 4:00 Akanksha 4:30 Song Yatra 5:00 Hollywood Se Bollywood 05:30 Chhat: Ka Naam 6:30 R D Burman Special 7:30 TBA 8:00 Fauji 8:20 Newsline

BTV 3:00 Opening Announcement Al-Quran Programme Summary 3:10 Recitation from the Geeta 3:15 Re-telecast of selected programme from TV Archive 4:00 News in Bangla 4:15 Parashram 4:45 Cartoon Film: Tom and Jerry 5:00 News in Bangla 5:25 National Television School Debate 6:00 News in Bangla 6:30 Esho Para Shikri: Mass Education 7:00 The News 7:05 Jiboner Alo 7:25 Nazrul Songs 8:00 News in Bangla 8:40 E-Shapthar Natak 10:00 News in English 10:25 Jannathumi 10:35 Film Show: The Equalizer 11:30 News in Bangla 11:35 Friday's programme 11:40 Close down

CHANNEL V 6:00am Frame By Frame 7:00 Rewind VJ: Sophiya 8:00 Jump Start VJ: Trear 9:00 Frame by Frame 11:30 The Vibe VJ: Luke 12:30 Rewind VJ: Sophiya 1:30 By Demand VJ: Trear 2:00 Frame by Frame 2:30 First Day First Show 3:00 BPL Oye 4:00 Planet Ruby 4:30 By Demand VJ: Trear 5:30 Music Update Tokyo 6:00 Rewind VJ: Sophiya 6:30 Eveready Red Alert 7:00pm Big Bang VJ: Alessandria 7:30 Eveready Red Alert 8:00 Planet Ruby 8:30 The Vibe 9:00 Video Flashback 9:30 Top of the Pops 10:00 First Day First Show 10:30 Soul Curry 11:00 Classic Rock 12:00am Jump Start VJ: Trear 1:00 Hey! 2:00 By Demand VJ: Trear 3:00 Big Bang VJ: Alessandria 4:30 BPL Oye 5:30 The Ticket

STAR SPORTS 6:00am 1996 Men's Jr Championship: 34-Place Playoff 7:30 World Pro Surf 8:30 Trans World Sport 9:30 Watersports World 10:30 The European Tour Loch Lomond World Invitation H/L 12:00 Britannic Assurance Championship Day 1 5:30 Asia Sports Show 6:00 Meriboro League H/L 6:30 World Wrestling Federation Raw 7:00 1996 Men's Jr Championship Final 9:00 Gillette World Sport Special 10:30 Futbol Mundial 11:00 US PGA Tour B C Open Day 12:30 Spanish Football League H/L 1:00 World Wrestling Federation Raw 2:00 This is the PGA Tour League Highlights 4:00 Asia Sports Show 4:30 Futbol Mundial 5:00 Trans World Sport

ZEE TV 5:30 Sur: Bha Sadi: 6:00 The News 6:30 Jagran 7:00 ZED 8:30 Mere Ghar Aina Zindagi 9:00 Ghoomta: Aana 9:30 HFF Takkar 12:00 17 Shirley ZED 12:30 Aur Ek Minute 1:00 ZED 1:30 Asian Sky Shop 2:30 Tara 3:00 Kurukshetra 3:30 Captain Cook Shahi Dawai 4:00 Heptagon 4:30 Nafrat 5:00 ZED 5:30 Teerkanam 6:00 Hum Honge Kamyab 6:30 Ad Mad Show 7:00 Manasi 7:30 Gaane Anjaane 8:00 Kya Scene Hai 8:30 Colgate Gel Yoodle Aeo 9:00 Gopaljee 9:30 Dastaan 10:00 Umed 10:30 The News 11:00 Mano Ya Na Mano 11:30 Hum Paanch 12:00 Tara 12:30 Parampara 1:00 No Problem 1:30 Beji Ke PG 2:00 Arabic Programme 2:30 TMM 4:00 Zee Horror Show 4:30 9 Matabar Hill 5:00 Jagran

SONY ET 8:30am 10:00am 11:00am 12:00pm 1:00pm 2:00pm 3:00pm 4:00pm 5:00pm 6:00pm 7:00pm 8:00pm 9:00pm 10:00pm 11:00pm 12:00am

DD 7 10:30 Jannudin 10:35 Classical Music 11:00 Dance 12:00 ETV Programme 12:30 Kalkata Bishtra 1:00 Janani (Serial) 2:30 Darpan (Serial) 3:00 Eto Tuku Basha (Serial) 5:05 Nepali Programme 5:30 News 5:35 Sainthya Samskriti 6:00 Patti Kalle 6:30 Chhorr Khabor 6:55 Aar: Saa (Serial) 7:30 Bangla Sambad 8:00 Sur Sargam 8:30 Deew (Serial) 9:00 Janani (Serial) 9:30 Swapner Bazar

BBC 6:00am BBC Newsroom inc: World Business Report/Asia Today/24 Hours 9:00 BBC World Headlines 9:05 White Heat 10:00 BBC Newsday 1:00 BBC World Headlines 1:05 Timeswatch 2:00 BBC World News 2:30 Time Out: The Clothes Show 3:00 BBC World News 3:30 Time Out: Jeremy Clarkson's Motorworld 4:00 BBC Newsdesk 6:00pm BBC World Headlines 6:05 Horizon 7:00 BBC World News 7:15 World Business Report 7:30 BBC World News Hour Asia and Pacific 8:30 Time Out: Fat Man in France 9:00 BBC World Headlines 9:05 White Heat 10:00 BBC World News 10:30 Time Out: The Farborough Air Show 11:00 The World Today 1:00pm BBC World Headlines 1:05 Correspondent 2:00 BBC World

STAR PLUS 6:30am Voltorn 7:00 Teenage Mutant Ninja Turtles 7:30 G.I. Joe 8:00 Saber Rider and the Star Sherif 8:30 Adventures Of Black Stallion 9:00 Aerobics Oz Style 9:30 Charles in Charge 10:00 Mr Belvedere 10:30 Today's Gourmet 11:00 E: Behind the Scenes A Time to Kill 5:00 Adventure: Ninja Turtles 5:30 Mutants: Of Black Stallion 6:00pm Lost in Space 7:00 Home and Away 7:30 Charles in Charge

STAR MOVIES 7:30am World Cinema: Le Charme Discret De La Bourgeoise 15 (English Subtitles) 9:30 Classic: We Dive At Dawn 12 (Arabic Subtitles) 11:30 Documentary: The Eelstree Story 12 (Hindi Subtitles) 1:30 Adventure: Miracles PG (Hindi Subtitles) 3:30 Classic: Rockabye 12 (Hindi Subtitles) 5:30 Family: Dominick And Eugene 15 (Hindi Subtitles) 7:15 Comedy: Home Alone II: Lost in New York 12 (Hindi Subtitles) 9:00 US Top Tan 9:30 Romance: Kiss Shot 15 (Hindi Subtitles) 11:30 Up Against: The Mob

PTV 8:00am Tiawat Aur Tarjuma/Hamd/Naat 8:20 Cartoon 8:30 Khabran 8:45 Cut Piece 9:20 Aahang & Roshni 9:45 Phool Chandni 10:05 Sonsa Chandni (Drama Serial) 10:30 Buttons & Rustys (Eng. Film) 10:55 Mili Naghma 11:00 Khabran 11:10 Aabshaar (Music Programme) 12:45pm Qawwali 12:55 Qur'an-e-Hakeem & Bismillah 1:15 Muqaddar (Drama Serial) 2:00 Puthhar (Drama Serial) 2:45 Perspective & Health Forum 3:40 Taleemi Maloomat 4:35 Aurat Aur Qanoon 5:05 Home Economics 5:25 Humaray Saath 5:55 Vama (Drama Serial) 6:25 Aici Courses 7:05 Muqabbal Hai

Garfield by Jim Davis comic strip panels. Panel 1: Garfield says 'SPRINGTIME IS HERE!' and 'LOCK THE DOOR'. Panel 2: Garfield says 'IT'S TIME FOR OUR TRADITIONAL GREETING!' and 'OH NO!'. Panel 3: Garfield says 'HELLO, MISTER SPRINGTIME!!' and 'THIS IS THE LOWEST POINT OF THE YEAR'. Panel 4: Garfield says 'TOM TOOK ME FISHING YESTERDAY.' and 'DID YOU CATCH ANYTHING?'. Panel 5: Garfield says 'NO, THANK GOODNESS...'. Panel 6: Garfield says 'HE WAS USING ME AS BAIT!'.