



A health worker fumigates the village of Shannan in China's northern province of Shaanxi on June 19, the worst-hit area so far which was pounded by heavy downpours causing 152 deaths. Rescuers in east China battled to move thousands of people trapped by floodwaters to safety, as renewed heavy rainfall threatened to swell floods that have already killed an estimated 550 people.

## Global warming could boost disease-causing bugs

REUTERS, New York

Climate change associated with global warming could give all sorts of disease-causing organisms the edge they need to cause harm to plant and animal species—including humans, according to a group of biologists.

Writing in the June 21st issue of the journal Science, lead author C. Drew Harvell of Cornell University in Ithaca, New York, and colleagues predict that worldwide climate shifts may create growing threats to public health and biological diversity.

A rise in atmospheric concentrations of CO2 and other "greenhouse gases" produced by burning fossil fuels are thought by most scientists to contribute to warming of the earth's climate. One possible consequence is milder winters, a time of year that is usually deadly for disease-causing organisms, according to the authors.

If such disease-causing organisms begin to survive through the winter, they are more likely to increase in number and "will likely increase disease severity," Harvell's team writes.

For example, the researchers note that mosquito-borne infections like malaria, dengue fever, yellow fever and certain tick-borne diseases, such as Lyme disease and tick-borne encephalitis, appear to be spreading, possibly due to milder winters.

"Most of these diseases have expanded into regions of higher latitude, in each case accompanied by apparent expansion in the ranges of mosquito, tick and midge (a type of biting fly) vectors," the authors write.

Whether these expansions are due primarily to climate change or other human influences like habitat alteration is controversial, note the authors, "as is predicting future distributional changes in disease prevalence."

Harvell's team also points out that warmer, wetter conditions in the past, associated with the climate phenomenon known as El Niño, were associated with outbreaks of several insect-borne illnesses including malaria and dengue fever.

In addition to the numerous human diseases, the researchers detail a wide range of disease-causing organisms that stand to increase their numbers and harm other species including agricultural crops, trees, butterflies, other mammals, and marine species as well.

However, Harvell's team emphasises that linking disease transmission or resistance to climate change will be difficult to manage given the dearth of research on the subject.

"To improve our ability to predict epidemics in wild populations, it will be necessary to separate the independent and interactive effects of multiple climate drivers on disease impact," the authors conclude.



Tractors destroy a genetically modified Colza (rapeseed) field, in Chimey, Belgium, yesterday. Belgian Minister for consumer protection Magda Alvoets ordered the destruction. The sign reads "GMO no thanks! Yes to Biodiversity".

## Global efforts needed to keep water arsenic-free

REUTERS, New York

A US Geological Survey (USGS) scientist urges policymakers, drinking water managers and scientists from around the world to work together to cope with arsenic contamination of drinking water, which is becoming an increasing problem as the world's population rises and available clean water dwindles.

In India and Bangladesh, notes D. Kirk Nordstrom of the USGS in Boulder, Colorado, 36 million people could be at risk from arsenic-contaminated water, which produces debilitating skin abnormalities and can cause cancer.

The contamination can occur naturally as minerals from rocks

and soil dissolve over time, leaching arsenic into groundwater. Industrial run-off is another arsenic source.

Writing in the June 28th issue of the journal Nature, Nordstrom notes that experts estimate 43 per cent of the world's population does not have adequate sanitation and 22 per cent lack clean drinking water.

And the increasing demand for safe drinking water means that surface water—from lakes, rivers or streams—isn't enough in some regions, he says. "This has led to an increased dependence on ground-water resources in many parts of the world," Nordstrom adds.

The key to minimising risk

from consuming arsenic-contaminated drinking water, according to Nordstrom, "is to incorporate hydrogeological, geochemical and microbiological expertise into the decision-making process of water managers, specialists and policymakers."

"The geologic and ground-water conditions that promote high arsenic concentrations are known," he explains, "and can help identify high-risk areas."

Nordstrom concludes, "In the search for adequate water supplies and in the absence of adequate information, it is prudent to test selected wells before opening the tap to hundreds, thousands, or more, of users."

## Mobile phones cause changes in human cells: Study

REUTERS, Helsinki

A study by scientists in Finland has found that mobile phone radiation can cause changes in human cells that might affect the brain, the leader of the research team said Wednesday.

But Dariusz Leszczynski, who headed the 2-year study and will present findings next week at a conference in Quebec, said more research was needed to determine the seriousness of the changes and their impact on the brain or the body.

The study at Finland's Radiation and Nuclear Safety Authority found that exposure to radiation from mobile phones can cause increased activity in hundreds of

proteins in human cells grown in a laboratory, he said.

"We know that there is some biological response. We can detect it with our very sensitive approaches, but we do not know whether it can have any physiological effects on the human brain or human body," Leszczynski said.

Nonetheless the study, the initial findings of which were published last month in the scientific journal Differentiation, raises new questions about whether mobile phone radiation can weaken the brain's protective shield against harmful substances.

The study focused on changes in cells that line blood vessels and on whether such changes could weaken the functioning of the blood-brain barrier, which prevents potentially harmful substances from entering the brain from the bloodstream, Leszczynski said.

The study found that a protein called Hsp27 linked to the functioning of the blood-brain barrier showed increased activity due to

irradiation and pointed to a possibility that such activity could make the shield more permeable, he said.

"(Increased protein activity) might cause cells to shrink—not the blood vessels but the cells themselves—and then tiny gaps could appear between those cells through which some molecules could pass," he said.

Leszczynski declined to speculate on what kind of health risks that could pose, but said a French study indicated that headache, fatigue and sleep disorders could result.

"These are not life-threatening problems but can cause a lot of discomfort," he said, adding that a Swedish group had also suggested a possible link with Alzheimer's disease.

Leszczynski said that he, his wife and children use mobile phones, and he said that he did not think his study suggested any need for new restrictions on mobile phone use.

## WHO declares Europe and Central Asia polio-free

REUTERS, Geneva

The World Health Organisation (WHO) on Friday declared Europe and Central Asia to be free of polio, a highly infectious disease that once paralysed thousands of children every year.

The declaration came after no indigenous cases were registered for three years in the WHO's 51-country European region, which stretches from Greenland to Turkey and across the Russian Federation and the Central Asian states of the former Soviet Union.

"This is a tremendous achievement in the global effort to eradicate polio," said WHO regional director for Europe Dan Zarog. But officials warned that no body could be entirely safe until

the disease was eliminated worldwide and called on countries to finance the \$275 million still needed to complete global eradication by a 2005 target date.

Polio is caused by a virus that invades the nervous system and can cause total paralysis or even death. It mainly affects children under five.

In 2001, an outbreak occurred among Roma children in Bulgaria, but the virus was found to have travelled from northern India. This did not count as the incident was not indigenous, meaning that the source did not lie in Europe.

The European region became the third WHO region to be certified free of polio after the Americas, in 1994, and the Western Pacific two years ago.

**BCIC International Tender Notice**

বিসিআইসি'র পণ্য শিল্পায়নে জাতীয় অগ্রগতির প্রতীক

Sr. General Manager (Purchase), BCIC, BCIC Bhaban (12<sup>th</sup> Floor), 30-31, Dilkusha C/A, Dhaka invites sealed quotations against Tender Enquiry No. PUR-3.1654/2001-2002 Dated 11-06-2002 for import of 300 MT ± 5% Linear Low Density Polythene Pellets (LLDPE) on C&F (C) Chittagong on Liner term basis under cash foreign exchange. Offer shall be received up to 11.00 AM on 23-07-2002 and be opened immediately thereafter. Tender documents with detailed terms and conditions will be available on payment of Tk 750.00 per set (non-refundable) from (i) Controller of Accounts, BCIC, BCIC Bhaban (2<sup>nd</sup> Floor), Dhaka and (ii) General Manager, BCIC Branch Office, 6, Agrabad C/A, Chittagong.

Earnest money is 1% (one per cent) of the total quoted C&F (C) value. No tender documents shall be sold on the date of opening and no late offer shall be accepted. The buyer reserves the right to accept or to reject any or all the bids without assigning any reason thereof.

BCIC 932-12/6/2002  
DFP-15968-15/6/02  
G-1704

**Emdad Imam Jahangir**  
Addl. Chief Manager (Purchase)  
For Sr. General Manager (Purchase)

**BCIC International Re-Tender Notice**

বিসিআইসি'র পণ্য শিল্পায়নে জাতীয় অগ্রগতির প্রতীক

Sr. General Manager (Purchase), BCIC, BCIC Bhaban (12<sup>th</sup> Floor), 30-31, Dilkusha C/A, Dhaka invites sealed quotations against Tender Enquiry No. PUR-3.1651/2001-2002 dated 10-06-2002 for Import of 500 MT ± 5% Polyethylene Pellet on C&F (C) Chittagong on Liner term basis under cash foreign exchange. Offer shall be received up to 11.00 AM on 22-07-2002 and be opened immediately thereafter. Tender documents with detailed terms and conditions will be available on payment of Tk. 750.00 per set (non-refundable) from (i) Controller of Accounts, BCIC, BCIC Bhaban (2<sup>nd</sup> floor), Dhaka and (ii) Sr. General Manager, BCIC Branch Office, 6, Agrabad C/A., Chittagong.

Earnest money is 1% (one per cent) of the total quoted C&F(C) value. No tender documents shall be sold on the date of opening and no late offer shall be accepted. The buyer reserves the right to accept or to reject any or all the bids without assigning any reason thereof.

BCIC-920-10/6/2002  
DFP-15821-13/6/02  
G-1697

**Emdad Imam Jahangir**  
Addl. Chief Manager (Purchase)  
For Sr. General Manager (Purchase)

**Civil Aviation Authority of Bangladesh**

Office of the Director, CEMSU, Kurmitola, Dhaka-1229

বিমান বন্দরকে পরিষ্কার রাখুন

**Notice Inviting Tender**

No: CEMSU-12/2001-2002

Sealed tenders are hereby invited from the CEMSU enlisted contractors or bonafide suppliers for the undermentioned work which will be received up to 12.00 hrs on 3.7.2002 in the Office of the Director, CEMSU, CAAB, Kurmitola, Dhaka and will be opened on the same day at 12.15 hrs in presence of the tenderers or their authorised representatives (if any).

Subject: Supply of different types of electrical materials for different airport.

Earnest Money @2.5% (two & a half per cent) of the quoted amount (refundable) in the form of Bank Draft/Pay Order drawn on any scheduled bank of Bangladesh in favour of Director, CEMSU, CAAB, Kurmitola, Dhaka must be submitted along with the tender.

Tender papers, terms & conditions and schedule of items of work may be had from the Office of the Chief Engineer, Director (Finance), CAAB HQ, Kurmitola, Dhaka and Director, CEMSU, CAAB, Kurmitola, Dhaka during office hours on payment of Tk. 400/- (Taka four hundred) (non-refundable). The intending tenderers may apply in their letterheads to the Director (Finance), CAAB HQ & Director, CEMSU, CAAB, Kurmitola, Dhaka for purchase of tender documents. No tender papers will be sold on the date fixed for opening of tender. Other terms and conditions can be seen in the Office of the Director, CEMSU, CAAB, Kurmitola, Dhaka.

The authority reserves the right to accept any tender or part thereof or reject all the tenders without assigning any reason.

**Sr Store Officer**  
for Director, CEMSU  
CAAB, Kurmitola, Dhaka

DFP-15189-8/6/02  
G-1630

**Government of the People's Republic of Bangladesh**

Office of the Executive Engineer  
Public Works Division, Kushtia

**Tender Notice**

- Tender Notice No. 129/2001-2002.
- Name of work: Repair & reconstruction of boundary wall of Kushtia Public Works Division Office.
- Estimated cost: Tk 1,48,065/-
- Earnest money: Tk 2,962/-
- Place of selling tender: All Executive Engineer's offices under Jessore Public Works Circle.
- Place of receiving tender: All Executive Engineer's offices under Jessore Public Works Circle.
- Last date of selling tender: 3.7.2002 up to office hours.
- Date of receiving & opening tender: 4.7.2002 up to 12-00 Noon & opened on the same day at 12-15 PM.
- Eligibility of tenderer: As per financial limit Public Works, Directorate enlisted & valid building contractors/contractors' firms.

**Md. Mohsin Mia**  
Executive Engineer  
Public Works Division  
Kushtia

DFP-15375-9/6  
G-1723

**Bangladesh Export Processing Zones Authority**

222 New Eskaton Road  
Dhaka-1000

BEPZA/CE-09/99/43 Date: 10-06-2002

**Tender Notice**  
No. 43/2000-2001

Sealed tenders are invited in two-envelope system from the experienced firms for "turkey interior design, decoration and related construction works for Zone Service Complex under Bangladesh Export Processing Zones Authority (BEPZA). The firms must have past experience in successful completion of interior design, decoration and related construction works in Office Building/Accommodation/Hotels within the last 5 (five) years amounting to at least Tk. 50.00 lacs in a single contract value.

The firms shall have to enclose following documents along with the tender documents:

- Attested photocopies of the valid Trade License, Tax Identification Number with Income Tax Clearance Certificate and VAT Registration Certificate.
- Attested photocopies of work-order and completion certificate for the same work from an officer not below the rank of Executive Engineer or equivalent officer.
- Attested photocopies of financial solvency certificate from any scheduled bank including Over Draft (OD) limit, if any, from the applicant's bankers.

If any of the above documents is not furnished or any of the documents is proved to be false or forged, the tender will be rejected including forfeiture of the earnest money.

Tender documents will be available from BEPZA, Executive Office, EPZ-Dhaka, EPZ-Chittagong and all the Divisional Commissioner's Offices on cash payment of Tk. 2,000.00 (Taka two thousand) per set only (non-refundable) on all working days during office hours till 10<sup>th</sup> July, 2002. In case of purchasing tender documents from the office of the Divisional Commissioner on payment of specific price by depositing in the form of Pay Order/Bank Draft from any scheduled bank in favour of the BEPZA. The acknowledgement receipt/money receipt in support of payment will have to be enclosed with the tender.

After evaluation of all technical proposals rankings shall be made among the technically qualified firms. First of all financial negotiation shall be made with the 1<sup>st</sup> ranked firm. If the negotiation is failed with the 1<sup>st</sup> ranked firm the negotiation shall be made with the 2<sup>nd</sup> ranked firm and so on.

The tenderers shall have to submit earnest money @ 2.5% of the total quoted amount in the form of Pay Order/Bank Draft from any scheduled bank of Bangladesh in favour of BEPZA along with the financial offers. No offer will be entertained without aforesaid earnest money.

The tender will be received in the abovementioned office up to 12:00 hours on 11<sup>th</sup> July, 2002 and only the technical offers will be opened only in the office chamber of Chief Engineer at BEPZA Executive Office at 14:00 hours on 14<sup>th</sup> July, 2002 in presence of tenderers who wish to be present. No tender shall be received after the above designated date and time. The tenderers shall have to submit 3 (three) copies of technical offers (1-original, 2- photocopies) and one copy of financial offer.

The work must be completed in all respect within 6 (six) calendar months.

For further information interested consulting firms may contact with the Chief Engineer, 222 New Eskaton Road, Dhaka-1000, Bangladesh. The authority will not be liable for any cost or expenses incurred by bidder in connection of preparation of proposal.

Before submitting proposal tenderer must visit the buildings. No claim whatsoever will be considered after submitting proposal.

BEPZA reserves the right to accept any tender and reject any or all tenders without assigning any reason whatsoever.

**Mosarrat Hossain**  
Chief Engineer  
Tel: 9349407

DFP-15901-12/6  
G-1695

উন্নয়নে বিজ্ঞান এবং তথ্য ও যোগাযোগ প্রযুক্তি

**২৫তম জাতীয় বিজ্ঞান এবং তথ্য ও যোগাযোগ প্রযুক্তি সপ্তাহ**

কেন্দ্রীয় প্রতিযোগিতা ও বিজ্ঞান প্রদর্শনী

উদ্বোধন করবেনঃ

**বেগম খালেদা জিয়া**  
মাননীয় প্রধানমন্ত্রী, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার  
২২ জুন, ২০০২, দুপুর ১২-০০ টা  
স্থানঃ বাংলাদেশ চীন মৈত্রী সম্মেলন কেন্দ্র

প্রদর্শনীর তারিখ ও সময়ঃ

২২ জুন, ২০০২  
বিকাল ৩-০০ টা থেকে ৬-৩০ টা  
২৩ জুন, ২০০২ থেকে ২৪ জুন, ২০০২  
সকাল ৯-০০ টা থেকে ১-০০ টা এ বিকাল ৩-০০ টা থেকে ৬-৩০ টা  
২৫ জুন, ২০০২  
সকাল ৯-০০ টা থেকে ১-০০ টা  
স্থানঃ ওসমানী স্মৃতি মিলনায়তন

সিম্পোজিয়ামঃ

২৩ জুন, ২০০২  
বিজ্ঞান ও প্রযুক্তি উন্নয়নঃ বর্তমান বিশ্ব ও বাংলাদেশ প্রেক্ষিত  
সকাল ৯-০০ টা থেকে ১০-৩০ টা  
উন্নয়নে তথ্য প্রযুক্তি  
সকাল ১০-৩০ টা থেকে ১২-০০ টা  
স্থানঃ ওসমানী স্মৃতি মিলনায়তন

পুরস্কার বিতরণ করবেনঃ

**আবুলকালাম মুহাম্মদ আমীনুলহক**  
সাবেক ডাইরেক্টর-জেনারেল, বাংলাদেশ কৃষি বিশ্ববিদ্যালয়  
২৫ জুন, ২০০২, বিকাল ৩-০০ টা  
স্থানঃ ওসমানী স্মৃতি মিলনায়তন

মোঃ হাবিবুর রহমান চৌধুরী  
সদস্য-সচিব  
২৫তম জাতীয় বিজ্ঞান এবং তথ্য ও যোগাযোগ প্রযুক্তি সপ্তাহ উদ্বোধন কর্মসূচি

**আপনি আমন্ত্রিত**  
আয়োজনঃ বিজ্ঞান ও প্রযুক্তি মন্ত্রণালয়ের পক্ষে জাতীয় বিজ্ঞান ও প্রযুক্তি জাদুঘর

GD-443