

# Govt okays project on road safety

## Focus on 144 accident-prone spots on highways

STAFF CORRESPONDENT

The government has taken up a new project to improve safety measures at accident-prone points on national highways.

The Accident Research Institute of Bangladesh University of Engineering and Technology (Buet) has identified 144 "black spots" on national highways throughout the country, which witness accidents almost every day.

A Tk-146 crore project was approved yesterday at a meeting of the

Executive Committee of the National Economic Council (Ecne) to improve safety at these points.

Under the project, the intersections on the highways and pedestrian crossings will be improved, road bends straightened, optical hindrances removed and signs, signals and road markings set up.

Among the identified black spots, 34 are in Dhaka district, six in Gopalganj, eight in Comilla, 14 in Sylhet, 11 in Khulna, two in Barisal, 35

SEE PAGE 11 COL 5



Nine fishermen were jailed yesterday for one month for catching hilsha in Patuakhali's Kalapara, defying the ongoing ban on netting the fish. PHOTO STAR

# Scientists 'accidentally solved' its hardest part

FROM PAGE 16

to a counterweight somewhere way above Earth's atmosphere — much higher than satellites in orbit. Having one would allow us to send cargo into space for a fraction of the cost of using rockets and allow us to harvest vast amounts of solar energy by placing solar collectors well above the Earth's atmosphere, where the sun never stops shining.

Finding a material strong enough to serve as a tether is one of the most daunting technical challenges standing in the way.

Earlier this year, however, researchers may have accidentally discovered the best candidate yet for building a space elevator. A set of diamond nanotubes created under immense pressures in a lab might rival or exceed the strength of carbon nanotubes, which are 100 times stronger than steel.

A LITTLE BIT OF LUCK

John Badding of Penn State University

and his team discovered that liquid benzene, when subjected to extreme pressure (around 200,000 times the pressure at the surface of the Earth) and then slowly relieved of that pressure, forms extremely thin, tight rings of carbon that are structurally identical to diamonds.

In other words, if you could unravel a diamond like you can a piece of fabric, you'd get these far-out threads. The result is a chain, thousands of times thinner than a human hair, that has the potential to be the strongest, stiffest material ever discovered.

The discovery was something of an accident, but far from a hapless one. The team used a large, high-pressure device called the Paris-Edinburgh device at Tennessee's Oak Ridge National Laboratory to compress a 6-millimeter wide quantity of liquid benzene — a huge amount compared with previous experiments. The volume of liquid benzene, coupled with the size of the device, forced them to

relieve the pressure more slowly than they would have otherwise.

"It's been known for a long time that if you put benzene under pressure, it'd make a type of polymer," Badding told Business Insider. "An Italian team did a similar experiment and found it was amorphous, disordered, with no pattern to the way material's held together, kind of like glass. We were trying to make the same material everyone else had made, but in larger quantities."

When they released the pressure, "something interesting happened: the material became ordered," Badding said. The carbon atoms in the liquid benzene arranged themselves so that each was linked with four others, in what's called a tetrahedral structure. Structurally, the threads formed by the liquid benzene are identical to diamond, with each carbon atom linked with four others. You can see what they look like below.

It was the breakthrough that

Badding had been seeking for 20 years.

"Luck favors the prepared mind," Badding said. "I'd love to be able to say I predicted this was going to happen for benzene. I don't think I can say that. But in a way our studies in benzene were a step in this larger goal, and we just happened to find that faster than we thought we would."

Now that Badding and his colleagues have shown that this structure is possible, the next step is to confirm the precise structure of the material and look for any imperfections that might exist.

"Theory suggests that if you can make the structures perfect, they could be as strong or stronger than carbon nanotubes, but we have not confirmed that experimentally," Badding said.

GOING UP

Towards the end of his life, science fiction writer Sir Arthur C. Clarke pre-

dicted that a space elevator would be built ten years after everybody stopped laughing. By the time he died, in 2008, everybody had.

But it's still too early to say whether these diamond nanotubes will be up to the task of being strung up in space. Ted Semon, Director of the International Space Elevator Consortium, points out that, as with carbon nanotubes, the real challenge will be scaling the nanotubes to the necessary length — about 60,000 miles. The longest carbon nanotubes to date are only a few centimeters long.

"In any event, options are good things," Semon noted.

While some observers are doubtful that a space elevator will ever happen, others, like Clarke, are confident that it's only a matter of time. Obayashi, a construction company based in Tokyo, has said that it wants to build one by 2050.

If it comes to fruition, everyone will have stopped laughing for a long time.

# LEADER DENIED INTERVIEW CARD BCL activists foil recruitment test

A CORRESPONDENT, Comilla

Comilla University postponed teacher recruitment interviews yesterday after some Chhatra League activists caused chaos at the interview venue over not issuing an interview card to one of their fellows.

University authorities said they did not pick Faisal Arefin, an applicant for the lecturer post at management studies department, for an interview today as he could not meet the minimum requirement for the post.

Faisal is a member of the convening committee of the university unit Bangladesh Chhatra League.

Though student politics is not allowed inside the university, the BCL is the only student organisation which operates on the campus.

Witnesses said the interview for the posts of assistant professor and lecturer at the accounting and information systems department started at the

vice chancellor's office at 10:00am.

Around half an hour later, some 20-30 BCL men led by Bahauddin and Bappi Khan, followers of BCL university unit convener Mahmudur Rahman, went to the interview venue.

They forced the jobseekers out of the VC's office and demanded the authorities issue an interview card to Faisal.

As the VC's office was in chaos, the university authorities postponed the interviews for the day.

Some students of business studies department said the minimum qualification for becoming a teacher is a CGPA (Cumulative Grade Point Average) of 3.70 in each of the BBA and MBA exams. But Faisal achieved 3.67 in BBA.

BCL convener Mahmudur said, "The authorities suddenly raised the minimum qualification for becoming a teacher. As a result, a member of our

SEE PAGE 11 COL 4

# Chinese firm eyes quick nod for drug

FROM PAGE 16

boon for China's developing pharmaceutical sector and the country's soft power in Africa, an increasingly important partner for the world's No.2 economy.

The current outbreak, the worst on record of the disease, has killed more than 4,000 people, mostly in West Africa.

Che said one of Sihuan's strengths was its close military ties. The firm, which claims to be China's third largest prescription drugmaker, was originally a military scientific unit, which was spun off into its current form in 2001.

"We have a myriad of connections with the military medical science units and have developed lots of products in cooperation with the AMMS," Che said. AMMS is a research unit of the People's Liberation Army, China's armed forces.

Che pointed out that a Chinese vaccine against a SARS outbreak a decade ago, also developed by the military, was approved by the drug regulator rapidly after its application, signifying that JK-05 could receive similar treatment.

"At that time the whole approval process, clinical components and the period after was cut right down," he said.

Officials at Sihuan, which is part-owned by Morgan Stanley, were not available for further comment on Tuesday.

TESTED ON MICE

China's Ebola cure bid still lags some way behind U.S.-developed ZMapp and TKM-Ebola, but Sihuan management said the drug has proven effective during animal testing on mice.

The drug, which AMMS has been studying and developing already for five years, is similar to Japanese flu drug favipiravir, developed by Fujifilm Holdings Corp, which has been used effectively to treat patients with Ebola.

ZMapp and TKM-Ebola have been tested on monkeys, which give a closer immune response to that of humans, and have been used to treat human patients with the disease.

JK-05 has not yet undergone clinical trials, but Sihuan management said the firm was actively working towards clinical tests of the drug, which could be shorter than normally required. The drug has also shown promise against

diseases such as influenza and yellow fever.

Chinese military doctor Wang Hongquan, credited with inventing the drug, said on the investors call that JK-05 would first be used to treat Chinese nationals working in Africa with the disease, but treating non-Chinese would require further international approvals.

There are millions of Chinese nationals living in Africa, with around 10,000 in the worst affected countries - Sierra Leone, Guinea and Liberia.

JK-05 could also be used if Ebola spreads to China.

"We can't rule out the possibility that it will spread to Asia. Particularly in China now we have lots of connections with different international cities and many people coming and going across our borders," he said on the call.

Company management and analysts said an Ebola outbreak in China would further speed up the approval process and development of the drug.

"It is highly likely the Ebola indication could be approved very quickly if Ebola was to spread to China," said Deutsche Bank analyst Jack Hu in an analyst note on Sunday.

# Yunus wins another award

FROM PAGE 16

The announcement was made by the secretary-general of the award, Abdulaziz Al-Mutairi, who said the GEA-Award committee's decision was based on Yunus' distinguished efforts to highlight the culture of entrepreneurship.

The daily said Al-Mutairi did not disclose the names of the other winners.

Last year there were 18 winners from four countries — Saudi Arabia, Egypt, Jordan and Yemen.

This year, 600 candidates from 42 countries had submitted their entries in six different categories for the best action plan, the best feasible project

idea, the best pioneering project, the best mentor and guide, the best existing project and the best leading figure. Yunus won the award for the best leading figure, said the newspaper.

According to Al-Mutairi, the award under the name of Prince Abdulaziz is the first on a global level to honour outstanding entrepreneurs and also encourage pilot projects. The award aims to recognise distinguished works in Saudi Arabia and internationally.

Al-Mutairi, who is also the head of CE, said the awards presentation ceremony, will be held on November 3.

A large number of economists from across the world are expected to be

present at the programme.

Prince Abdulaziz will give away the awards totaling SR1 million for the distinguished works.

"The launch of the award is a continuation of the efforts of the Kingdom's leadership that reflects Prince Abdulaziz's efforts to help young people realise their ambitions and shape their own future," the daily quoted Al-Mutairi, as saying.

Al-Mutairi also underlined the role played by the international jury in all branches of the award and the integration of work with other committees that operate according to a plan of the CF's awards committee.

# Shia militias kill

FROM PAGE 16

forces and vowed to govern for all Iraqis.

On Monday, the United Nations warned that as many as 180,000 people had fled fighting between Iraqi forces and ISIS militants in and around the city of Hit in western Anbar province.

US President Barack Obama and military chiefs from more than 20 countries are meeting in Washington to discuss how to stop ISIS in Iraq and Syria.

Correspondents say it is the first time such high-ranking military officials from so many countries have come together since the US-led coalition was formed last month.

Air strikes have failed to stop ISIS advancing on the northern Syrian Kurdish town of Kobane - close to the Turkish border - where it has been battling Kurdish forces for several weeks.

The Iraqi prime minister has not yet commented directly on allegations contained in the Amnesty report but has previously said Iraq faces an "existential" battle against militants from ISIS, also known as IS or ISIL.

Abadi has also acknowledged, in what is believed to be a reference to Sunnis, that his government must address the "legitimate grievances" of the Iraqi people.

The accusations against Shia militias in Iraq come two days after ISIS confirmed, in the latest issue of its propaganda magazine Dabiq, that it had captured and enslaved women and children from the Yazidi minority.

minority.

It said the women and children were seized around the town of Sinjar in northern Iraq and "were then divided according to the Sharia amongst the fighters of the Islamic State who participated in the... operations".

Some of the women were subsequently "sold", the magazine said.

The Amnesty report, based on interviews conducted in Iraq in August and September, provides details of what it says were sectarian attacks carried out by militiamen in the cities of Baghdad, Samarra and Kirkuk.

It says scores of unidentified bodies have been found, many still handcuffed and with gunshot wounds to the head, suggesting execution-style killings. Many others who disappeared remain unaccounted for.

Amnesty says that in Samarra, a mainly Sunni city north of Baghdad, it obtained details of more than 170 Sunni men abducted since June.

More than 30 were taken from or near their homes in a single day - 6 June - before being shot dead. Their bodies were dumped nearby.

"The killing spree seems to have been in reprisal for a brief incursion into the city the previous day" by ISIS fighters, Amnesty says.

Amnesty says the militias - including Asa'ib Ahl al-Haq, the Badr Brigades, the Mahdi Army and Kata'ib Hizbullah - have become more powerful since June, when the Iraqi army fell into disarray in the face of ISIS advances.

JOB ADVERTISEMENT

# UNDP removes paragraph on Jan 5 polls

Clarifies that the text does not represent UNDP's position

STAFF CORRESPONDENT

The UNDP Bangladesh has removed a paragraph from a job advertisement on its website, which termed the January 5 national polls "one-sided" and the subsequent upazila elections "controversial".

The move came following newspaper reports saying international donors plan to reduce financial assistance to the Election Commission (EC) of Bangladesh in the aftermath of the elections.

The reports were based on information provided in the background

SEE PAGE 11 COL 5

# BURDWAN BLAST Detectives find madrasa link

STAFF CORRESPONDENT

The National Investigation Agency (NIA) probing the recent bomb blast at Burdwan in West Bengal has learnt that the militant group involved in the explosion was working centring on a madrasa.

Investigators said those arrested from West Bengal and Assam in connection with the explosion were associated with the madrasa in Mangalkot, reports the BBC Bangla.

The October 2 explosion at a house in Khagragarh in Burdwan killed two suspected militants -- Shakil Ahmed and Sobhan Mandal -- and left another person named Hasan Saheb injured.

The NIA investigators continued searching the madrasa since the blast at the house where a huge number of bombs and bomb-making materials were found.

Many books written in Bangla and Arabic were among the materials seized from the madrasa. Bullets, boxing gloves and roller skates were also found.

At least 12 people were arrested so

SEE PAGE 11 COL 4

# BLOGGER RAJIB MURDER Charges against Mufti Jasim accepted

COURT CORRESPONDENT

A Dhaka court yesterday took cognisance of the charges against Mufti Jasimuddin Rahmani, chief of militant group Ansarullah Bangla Team, and seven students of North South University in blogger Ahmed Rajib Haider murder case.

Judge Md Jahurul Haque of Metropolitan Sessions Judge's Court of Dhaka also fixed October 30 for hearing on charge framing against the accused.

The court issued an arrest warrant against fugitive accused in the case Redwanul Azad Rana of Daganbhuiyan upazila of Feni and ordered to confiscate all his movable properties.

The court also directed the OCs of Daganbhuiyan and Pallabi police stations to submit a report to it within October 30 on the execution of the arrest order.

Blogger Rajib, also an activist of the Shahbagh movement, was hacked to death in the capital's Pallabi on February 15 last year.

On January 28, detectives pressed charges against Jasimuddin and the seven NSU students including Rana in connection with the murder.

Among the accused, Jasimuddin and six NSU students -- Md Faisal Bin Nayem alias Dweep, Maksudul Hasan alias Anik, Md Ehsan Reza alias Rumman, Nayem Sikdar alias Iraj, Nafis Imtiaz and Sadman Yasir

SEE PAGE 11 COL 5