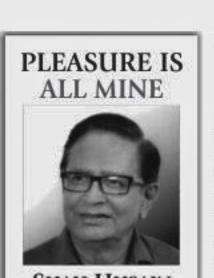
Stampede deaths: Martyrs of mismanagement



five days into the pall of gloom cast by the almsgiving incident at Satkania, Chittagong SHAH HUSAIN causing nine IMAM deaths, mostly of

women and children, and injuries to several others. Yet, attempts are being made to shield the truth and shirk responsibility from what has been an

abysmal management failure. Different versions are coming into play beneath the surface apparently depending on which side of the fence one is sitting on. An atmosphere of hush-hush prevails as people prefer to talk on condition of anonymity lest they fall foul of the potential or real benefactor.

This reminds us of a Graham Greene quote from the novel *The* Heart of the Matter: "In human relations kindness and lies are worth a thousand truths." That it befalls us to unravel some such truths is as much a professional duty as it is a social obligation for us.

It is claimed by people apparently close to Kabir Steel Re-rolling Mills Limited (KSRM) that "heat-stroke" took the lethal toll. But the doctors who treated the injured victims have marked bruises and scars on their bodies put down to lathi charge. This cruel method resorted to by the mills' security staff apparently "to reduce

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crowd pressure" had the opposite effect on the alms-seekers. They took fright of the ham handedness resulting in them tripping over each other and being trampled underfoot, many of them lethally.

Of course, it was a given that the public on such occasions get impatient, and desperate by a demonstrative effect to get hold of the receivables. They could have been persuaded to wait for their turn and not attempt to jump the queue.

Essentially it must be realised that

the brutality was entirely out of character with the noble purpose of distributing Iftar commodities and Zakat money.

Spiritually, however, acts of piety in Islamic parlance are enjoined to be performed quietly. If, however, a wealthy benefactor should choose to be demonstrative with his pious giveaways, he needs to measure up to the standards of management matching with the scale of event.

It wasn't also a closed space (but a field adjoining an orphanage) where

distribution was planned, so that it admitted of orderly entry, receipt of deliverables and exit-provided the volunteers were deployed and active at the right places.

Were the police in adequate strength at the venue under specific instructions to discipline a potentially chaotic situation? According to one version, the police didn't consider it a matter of security!

It must be said in all fairness to police's reactive dynamism that they are pursuing a case filed by

the husband of his deceased wife Hasina Akhter against KSRM's executive director Shahjahan Mian along with three others. The officer-in-charge of Satkania Thana, Rafiqul Hossain, pointed out "lapse and flaw" on the part of the mill authority.

We are perhaps the quickest to unlearn from the previous experiences of deaths in stampedes. On December 18, 2017 ten persons died and many were injured at the Rima community centre where non-beef

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dishes were served to Hindus during the Qul Khawani for the deceased Mayor of Chittagong Mohiuddin Ahmed. Entry to and exit from the community centre entailed negotiating a 10-feet slope where the stam-

pede occurred. Late mayor Mohiuddin's relatives owned up to the responsibility for the accident. They paid each of the family of the dead Tk 1 lakh, bore the medical expenses of the injured, apart from

granting Tk 5,000 to the wounded. Now it is for the re-rolling mill owners to follow that precedent in taking responsibility for the tragedy and adequately compensating the victims.

In October 2005, a similar trampling incident had occurred at the same spot in Satkania killing five but obviously to little avail. In July 2015, as many as 27, all of them women and children, died in Mymensingh where they had gathered for free Zakat clothes. In March 2015, 16 persons were killed during the Hindu rituals of bath at one of the sites of Sitalakhya.

In more recent years, we have stacked up quite a legacy of management failures when crowds swelled out of control, and as people jostled for space, they would be crushed, mangled and pummelled.

"When one is killed, humanity is diminished"—we would do well to remember that and save life from the avoidable accidents galore.

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Nine women died in a stampede during the distribution of Zakat and Iftar items at Satkania on May 14, 2018.

Harnessing the power of modern biotechnology

AHMED A AZAD

ODERN biotechnology made its beginning with the development of molecular cloning and recombinant DNA technologies in the early 1970s, following the discovery of the doublestranded DNA structure and deciphering of the genetic code. A very powerful research tool for genetic manipulation became available, making possible what could not have been dreamt of before.

Although Bangladesh was slow on the uptake, today many of the top universities and some government research organisations have welltrained molecular biologists with the being carried required skills. Selective use of modern (third-generation) biotechnology, supported by information technology, can make a huge impact on meeting our national priorities, generate new inteleven though the lectual property (IP), and help to make our research internationally competitive. Hopefully, this will also go some way towards improving the dismal international ranking of our major

universities. The sequencing of the jute genome, made possible by a generous, ad hoc grant from the prime minister, is an example of what modern biotechnology could achieve in Bangladesh if adequately supported. The jute genome sequence provided new and valuable information needed to engineer novel home in recent varieties of jute with better fibre quality, faster growth and resistance to disease and adverse environmental conditions. Post-genome research would have been faster and more fruitful if the tools for advanced functional genomics and transgenic technologies were in place, and if there was a better understanding of patent laws.

Biotechnologists in Bangladesh are also involved in high-level research in the early stages of developing food and cash crops resistant to adverse effects of climate change and infectious diseases. A number of universities and government research centres are heavily

involved in agricultural biotechnology research. Between them they have the critical mass of manpower to adequately address national priorities such as food security and use of agricultural and forest waste for production of biofuel through biotechnological processes, provided there is adequate funding and access to contemporary cuttingedge technologies.

By contrast, there is very little research being carried out in health biotechnology even though the opportunities are sky high, and many young scientists with expertise in the area have returned home in recent times. Stem cell research, gene-editing technology for in vivo repair of genetic disorders, and personalised medicine made possible by new generation sequencing, are only a fraction of amazing possibilities. But two areas of new biotech medicines, biosimilars and novel medicines from the biota, deserve immediate attention for their potential to meet domestic healthcare needs and generate export earnings.

Highly efficacious monoclonal antibodies like biologic drugs, produced by recombinant DNA technology, totally dominate the international market. Because of the exorbitant cost of these new biologics (more than USD 50,000 per patient per year), there is a huge demand for cheaper copies (biosimilars), which the local pharmaceutical sector should take advantage of. A number of local pharmaceutical companies have started producing this new class of biosimilars by "fillfinishing" with imported recombinant proteins, as they are reluctant to invest heavily in new technology and production facilities and feel that clinical trials and regulatory approval (from Directorate General Drug Administration) will be easier with imported and well-characterised active ingredients. These assumptions are misplaced.

Despite its newly-earned economic status, Bangladesh will remain exempt from patent restrictions till 2033 and is, therefore, free to copy any biologic on

the market irrespective of its patent status, giving it a huge competitive advantage over potential rivals such as China, India and Korea. This is a unique opportunity for academiaindustry partnerships to open the door for Bangladesh to try to capture even a small percentage of the anticipated USD 3 trillion international market for biologic and biosimilar medicines.

The production of new biosimilars from molecular clones could considerably lower the production costs to bring these new life-saving drugs within the reach of the common man, and boost export earnings for Bangladesh. Local biotechnologists have the technical knowhow to produce molecular

libraries with disease-specific bioassays (measurement of the concentration or potency of a substance by its effect on living cells or tissues) could result in the discovery of novel lead compounds, which could be converted into candidate drugs using a range of cutting-edge molecular technologies. The research requires multidisciplinary collaboration between molecular biologists (local and NRB), ethnobiologists, and pharmaceutical, computational and synthetic chemists. New IP (patents) resulting from the research can foster partnership with industry for commercialisation, and also generate private-sector funding for developmental research and clinical trials.



clones of biosimilars by the reverse engineering of biologics, including those still under patent, but local drug companies will need to be persuaded to manufacture biosimilars from molecular seed clones developed in Bangladesh.

Another area of research that has huge potential is the discovery and development of new medicines from the unique biota and very rich biodiversity of Bangladesh. Local scientists have published extensively on medicinal plants and their chemical constituents but hardly any patents or products have resulted from these studies. The screening of natural product

For optimum use of modern biotechnology and other contemporary technologies for socioeconomic progress, there needs to be long-term planning and coordination at the national level. Research productivity is dependent on a critical mass of full-time researchers including research students (MSc and PhD) and postdoctoral fellows, and access to cutting-edge technologies. Taxpayer-funded research should aim at product development, and local industry should be encouraged, through tax and financial initiatives, to manufacture home-grown products and support developmental research.

Funding has to be adequate and sustained over long periods—hardly possible with only one percent of annual budget allocated to higher education and 0.4 percent of GDP to R&D. Some strategic thinking is required to make the most of the very limited funding available for research. Instead of spreading it too thin, these limited funds should be used to support a small number of projects in areas of highest national priority.

The UGC could ring-fence meagre research funds to selectively support postgraduate research within strong and productive research groups and encourage multidisciplinary collaboration between research teams possessing complementary expertise and facilities. Such networks could be the nucleus of future research universities. The Ministry of Science and Technology, together with UGC, could establish a National Research and Innovation Council (NRIC) to support and coordinate research in areas of highest national priority. The high-tech equipment and full-time research staff in government laboratories, such as Bangladesh Council of Scientific and Industrial Research, should be redeployed in areas of high-priority research. The NRIC could fund highpriority research through a national collaborative research programme, where funding would be conditional upon establishing collaborations between academia, government research centres and industry. The NRIC should also establish a national core facility for cutting-edge technologies, and a one-stop technology transfer office, for the benefit of all researchers

in the country. The above measures could allow Bangladesh to become internationally competitive in biotechnology and other high-priority research. Hopefully, the allocations for postgraduate research and national R&D will reach desired levels in the near future.

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GEORGE ORWELL (1903-1950)ENGLISH NOVELIST, ESSAYIST, JOURNALIST, AND CRITIC

If liberty means anything at all, it means the right to tell people what they do not want to hear.

CROSSWORD BY THOMAS JOSEPH

ACROSS	30 Use up	7 Shown to be true
1 One of a bear	32 Abounding	8 Planted
trio	34 Hounds' quarry	10 Salad green
5 Openings	35 Space visitor	11 Lab runners
9 Old saying	36 River of France	16 Coin toss call,
11 Paris subway	38 Candidate of	e.g.
12 Two-dot	the '90s	18 "Frozen"
character	39 Less covered	princess
13 As a follower	40 Serpent's spot	21 Holler
14 Period	41 Midterm, for	23 Excellent
15 Take in	one	24 Disrobed
17 Take in		25 Realm
19 Checkers side	DOWN	27 Earlier

20 Search deeply

22 Good judgment

24 Stew sphere

26 Future tulips

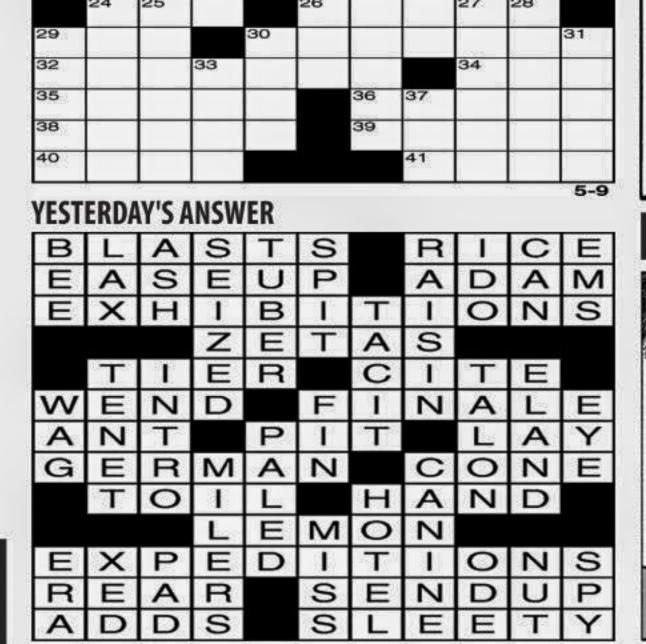
29 Tiara feature

21 Hankering

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BABY BLUES BY KIRKMAN & SCOTT IT'S OKAY TO YELL AT BASEBALL PLAYERS, IT'S NOT OKAY TO YOU CAN'T ACT LIKE THAT IN THERE! LET'S GO.

