

Avoiding catastrophe

The aim is not to alarm, but to prepare. "Forewarned is forearmed" are words of wisdom. No one knows the future. Good policy simply tries to make the best use of the knowledge available. How far can we claim to have fulfilled this obligation?

MIR M. ALI

THE magnitude 7 earthquake that devastated Haiti on January 12 killed thousands and made millions homeless, should be a wake-up call for Bangladesh. An earthquake of magnitude 6 on the Richter scale shook Bangladesh on September 4, 2009. Its epicenter was 450 kilometres northeast of Dhaka. Bangladesh has a history with many recorded earthquakes.

Dhaka is the country's nerve centre, with a densely built environment of old and new buildings, most of which are vulnerable to earthquakes. In 2005, the US Department of Defense (DoD) rated it as a major earthquake zone, rather than the previously known moderate zone, according to DOD and the Bangladesh National Building Code (BNBC). What does this mean for the safety of Dhaka's 15 million people?

Suppose all Dhaka's houses were built following earlier specifications. Imagine how many would survive if, God forbid, an earthquake more severe than their design could withstand happens? Of course, those built without any seismic considerations will be most vulnerable.

Some areas of Mymensingh were hit by a magnitude 7 earthquake on July 27, 2008 and, fortunately, spared major structural and non-structural damage. However, that was not the case in China on August 30, 2008. The "Great Sichuan Earthquake" was recorded as the 19th deadliest, measuring magnitude 8. The death toll was 69,227, 374,176 were injured, 4.8 million left were homeless

and 18,222 were missing and unaccounted for. Many cities were evacuated since people did not want to live in an environment without functioning infrastructure and city services.

Although the earthquake's epicenter was in Wenchuan County in Sichuan province, tremors were felt 1,600 kilometres away in both Beijing and Shanghai. Even Bangladesh felt tremors 8.5 minutes after the quake hit. On November 6, China's central government announced that it needed to spend \$146.5 billion over three years to rebuild ravaged areas.

How might Bangladesh, a tinier nation with a smaller budget, operate under such circumstances? Dhaka is one of the world's most densely populated megacities, a combustible mix in the face of such a national natural disaster. However, credit should be given where it is due. Bangladesh University of Engineering and Technology (BUET) is actively engaged in seismic research and mapping of the country's seismic zones. Earlier, BNBC also stipulated seismic design provisions, along with other provisions, to assist regulatory bodies implement provisions that ensure quality of construction.

Dhaka's BNBC seismic zone classification as Zone 2 is moderate and similar to that of the Uniform Building Code (UBC), which classifies zones in numerical order and is followed in the western region of the US. Most US states, however, adopted the International Building Code (IBC), which designates seismic design categories (SDC), rather than zones.



Precautions must be taken immediately.

Dhaka is now classified as SDC Category D, equivalent to Zone 3, that is, major. Of course, this has economic ramifications since design requirements become much more stringent. But Dhaka's code-writing and regulatory authorities are urged to note this important point for future code revisions. Costs are estimated to be 10% to 15% above standard costs, but it is better to pay upfront rather than later. The cost of human life is undoubtedly immeasurable.

While we wait to learn from Haiti, after full details of the damage are known and investigated, we can look to China for guidance in how residents cope with loss of life, economic loss, cessation of build-

ing and infrastructure function, and blockage of escape routes for occupants following such an incident. But Wenchuan was not China's political, economic or communication nerve center. What will happen to Bangladesh if the Secretariat, police headquarters, TV stations, hospitals and garment factories cannot function?

San Francisco politicians were so afraid of scaring people after the Great Earthquake of 1906 that they simply lied about the quake's damage. Insofar as one can excuse such actions, we may say they knew little about earthquake-resistant design in those days to act effectively. Do we have such an excuse today when we have considerable

knowledge and experience about seismic design?

The aim is not to alarm, but to prepare. "Forewarned is forearmed" are words of wisdom. No one knows the future. Good policy simply tries to make the best use of the knowledge available. How far can we claim to have fulfilled this obligation?

If the unthinkable happens, will we not regret not having spent an extra 10% to 15% for safety's sake while building our residences and offices? This is not a decision for only politicians, architects or structural engineers to make. It is the people who are endangered and the decision should be theirs. If, after being properly informed, people decide they

want to let things continue as they are, no one can complain.

From an engineering point of view, the following are some basic requirements for earthquake-resistant design:

- Ductility, that is, the structure should bend and not break;
- Toughness, that is, the structure should have enough energy absorption capacity;
- Redundancy, that is, the structural elements should be able to redistribute stresses through adequate load sharing;
- Appropriate architectural design, that is, maintaining structural symmetry; avoiding major mass and stiffness variations in plan and elevation, re-entrant corners in plan, and connecting very flexible elements to very rigid elements, etc; and paying attention to non-structural elements.

There are still reasons for cheer and hope. As mentioned before, BUET is taking an active role in carrying out research on seismicity and re-identifying seismic-prone regions of Bangladesh. More articles on this subject are appearing in Dhaka's newspapers, thus educating the public about the danger of future earthquakes in Dhaka. Architects and structural engineers are paying more attention to this important matter in their design of new buildings, by following existing BNBC regulations. These are encouraging signs.

The one point to be driven home to the public is that their participation and acceptance of seismic considerations and modifications, as part of the design process, has several potential benefits. Above all, an earthquake-proof building can possibly save lives if such an act of God were to strike Dhaka without a moment's notice.

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The future of farming

According to project specification, owners of small and medium farm holdings have to form three-to-four-member groups to qualify for subsidy, mainly for buying tractors, power tillers, thrashers for rice and wheat and transplanters.

M. ABDUL LATIF MONDAL

IN its meeting on January 21, the Executive Committee of the National Economic Council (Ecne) approved a project titled "Enhancement of Crop Production through Farm Mechanisation" at an estimated cost of Tk. 149 crore for speeding up the process of farm mechanisation in order to boost crop production and minimise wastage. This is definitely a welcome move for boosting the country's food production to attain the ultimate objective of attaining self-sufficiency in food.

Official sources and newspaper reports suggest that under the project, farmers of 237 upazilas in 25 districts would be given cash incentives for procurement and use of modern farm equipment and tools to help boost production and minimise wastage during post-harvest food grain processing.

The districts that would be covered are Tangail, Mymensingh, Netrokona, Jamalpur, Kishoreganj, Sherpur, Gopalganj, Faridpur, Shariatpur, Comilla, Sylhet, Sunamganj, Moulvibazar, Chittagong, Patuakhali, Bhola, Dinajpur, Thakurgaon, Naogaon, Kurigram, Rangpur, Bogra, Jessore, Satkhira and Khulna. Prime Minister Sheikh Hasina, who presided over the Ecne meeting, reportedly directed the agriculture ministry to take up another project to extend the aforesaid subsidy to farmers in all upazilas.

According to project specification, owners of small and medium farm holdings have to form three-to-four-member

groups to qualify for subsidy, mainly for buying tractors, power tillers, thrashers for rice and wheat and transplanters. The groups will procure the machinery and equipment from dealers to be appointed by the agriculture ministry in upazilas. The government will pay 25 percent of the cost of the machines and equipment.

As stated above, formation of groups of three to four members by the owners of small and medium farm holdings is the pre-condition to qualify for the subsidy. "Farm holding," as defined in the Agriculture Census-1996, "is a technoeconomic unit of agricultural production comprising all livestock and all lands used wholly or partly for agricultural purposes and is operated under a single management by one person alone or with others or by juridical person without regard to title, legal form, size or location."

Farm holdings are divided into three categories: small, medium and large. A small farm holding has an operated area between 0.05 and 2.49 acres of land while a medium farm holding has it between 2.50 and 7.49 acres. A large farm holding is one having an operated area of 7.50 acres or above.

The pattern of distribution of farmland shows that "the share of the total area under small farms in Bangladesh has been on the rise over time, while that under large farms is on the decline (Mosharraf Hossain: Agriculture in Bangladesh)." So, the forming of groups with farmers having contiguous small and medium farm holdings will be something like "block farming," which would help boost production through optimum

utilisation of the machines and equipment.

At a workshop organised by the Cirdap on November 23, the speakers, including a senior official of the food and disaster management ministry, revealed that improper harvesting, processing and storage led to a loss of nearly 15 percent of food grains produced in the country. It was further revealed that, for fruits and vegetables, post-harvest losses ranged between 20 and 25 percent while losses for highly perishable fruits and vegetables might be as high as 40 percent.

While implementing the project, care should be taken that the above wastage is reduced to the minimum. It may be mentioned that the National Food Policy 2006 has also laid emphasis on the need to undertake appropriate measures to prevent excessive loss and wastages of food grains, vegetables and fruits due to improper harvesting, processing and storage.

The farming community and the media have welcomed the government initiative to promote farm mechanisation by providing subsidy to procure agricultural implements. In its editorial of January 23, The Daily Star wrote that the project would require more than four farmers to qualify for the subsidy. It would lead to large-scale farming, something that has not been in practice, and which has affected the overall food grain productivity in Bangladesh. Although the project will be restricted to a limited number of districts initially, it is hoped that the entire country will be brought under its ambit eventually.

In its editorial of January 24, The Financial Express wrote that if the project was implemented properly and with care, then it would help tap the potentials of the country's agriculture sector and increase productivity. The agriculture ministry would have to be particularly attentive to its task of helping the real farmers in owning farm machinery and equipment. Otherwise, the government might have to subsidise the ventures of the better-off people engaged in rental business in rural areas. Since the agriculture ministry would be dependent on the recommendations from its field-level officials for the distribution of subsidy, necessary guidelines for selection of farmers' groups needed to be issued to make sure that the government incentives reached the intended users.

It is said that mechanisation is one of the pre-requisites for boosting farm production. The government will have to ensure that other important pre-requisites, such as timely supply of farm inputs and credit, uninterrupted supply of electricity for irrigation, particularly for boro, and fair prices to farmers through development of appropriate agricultural marketing systems are available to farmers without any hassle.

IN MEMORIAM

A man of integrity

MAMUN RASHID

CELEBRATED television host Aly Zaker was conducting an interview a few months back. It was asked as to why brilliant students were no longer inclined towards politics, thus risking the creation of an intellectual void in political leadership. Such was not the case during our time. Though I haven't been directly involved with student politics, I have seen many of our seniors and friends who, despite being on the streets or in prison, have achieved brilliant results academically.

Things have changed. We seem to be no longer respectful towards logical argument. Upon losing on rational grounds we resort to fascism. We attempt to force our opinions, despite our inherent biasness, upon others.

However, throughout history there have been exceptions to this norm, and possibly such exceptions still exist. One shining paradigm of such an exception was Mr. Shah M.S. Kibria. In the event of difference of opinion he, with his serene personality, would sit with a pen and write logically to support his viewpoint or stance. He had never spoken loudly to humiliate the opposition. Every individual has flaws, but defining success despite the shortcomings and being positive are traits that set true leaders apart.

Born in 1931, S.A.M.S. Kibria, the brilliant student from Sylhet, went on to graduate from Dhaka University in economics. It was then that he actively participated in the language movement for which he was even arrested by the police. He later obtained further academic accolades from the US and UK.

Many of us are aware of his success stories and achievements -- GDP growth rate of 5.83%, low inflation, remarkable growth in exports and investment, great strides in infrastructure and the attainment of self-sufficiency in food production. Socio-economic indicators such as literacy rate and mortality rate also marked significant progress.

This shining beacon of hope was abruptly switched off on the tragic afternoon of January 27, 2005. I am sure all of us remember the horrid scenes -- the painful memories haunt us still. So much could have been done; perhaps this fate could have been avoided altogether. To this day so many questions remain unanswered -- the true killers are yet to be brought to justice.

In any country, especially in a country such as ours, the job of a finance minister is extremely difficult. Irrespective of involvement, the finance minister seems to be held responsible for every-

thing, including price inflation of commodities, adverse exchange rate fluctuations, absence of adequate food supplies to famine hit regions, accidents occurring due to usage of old aircrafts, and insufficient fund placement for school infrastructure build-up. He is even blamed if farmers do not receive satisfactory amount of fuel or fertiliser.

We have been hearing for a long time that "the party is greater than an individual; the country is greater than a party." However, ironically, so far all the finance ministers of the elected governments have been criticised for prioritising the country's needs before the party's requirements. They even had to accept responsibility for the failure of public institutions, irrespective of their engagements. As a result, although there has been no dearth of talent, the destination of finance ministers of Bangladesh is, generally, insipidness.

The finance ministers in opposition to such scenarios became aggressive. If the minister has to seek fund endowment from the World Bank, he has to decide on the "level of privatisation" for receiving aid from IMF; he has to look after "value of BDT" and even has to notify the European Union whether allocated funds were properly utilised or were embezzled by corrupt officials. He also has to monitor unprofitable organisations and find out why the Anti-Corruption Commission is not competent or why the judiciary is not independent. For such activities the minister has to be aggressive to get things done.

How did the apparently very soft late finance minister Mr. Kibria manage under such extreme circumstances? How did this mild, sincere and rational person survive and succeed as a minister? He had sincerely administered all necessary responsibilities. Only the people who he worked with him can share how he had: 1) managed international trade with a foreign exchange reserve of a little over \$1 billion; 2) prevented hike of oil and gas price etc; 3) directed the bureaucracy without raising his voice; 4) avoided giving businesspersons close to the party exclusive benefits; 5) kept Bangladesh's economy shielded from the currency crisis of South-East Asia; 6) become elected as representative of the people without resorting to unfair means and clever tricks; and 7) returned from Pakistan for building up an independent Bangladesh.

I do not know how he managed to do the seemingly impossible -- achieving so much without compromising his values -- and probably I shall never know. Perhaps true brilliance can comprehend a lot that a normal person



Shah A. M. S. Kibria

cannot. Tagore didn't go to a postmaster's home for creating the character "Ratan," Amartya Sen didn't suffer the pangs of famine for creating famine related theories or action plans. The nation's brilliant people don't have to be shown what they have to accomplish. Their knowledge, talent and sincerity ultimately dictate their path to greatness.

I had the rare opportunity to get close to Mr. Kibria while he was our finance minister, and to share some of his thoughts regarding handling state owned banks, loss making public enterprises, corruption in civil bureaucracy and so on. He was an extremely talented Bengali, brilliant student of economics, responsible administrator, and a believer in logic, not fascism. He believed in Bangladesh's future. He, along with his colleagues, was actively involved in creating a respectable future for the country. He participated in active politics and got elected as a people's representative.

Perhaps if he didn't choose that path and didn't have to go to his constituency regularly, he would still be alive. We wouldn't have lost the brilliant, patriotic and sincere S.A.M.S. Kibria. His commitment to his goal of creating a better future for us ultimately led to his sad demise. Lot of us were grieved by such an incident; fascism has triumphed over logic, rationalism and democracy.

Today, the people and the leaders of this nation have to decide how we can attract more Kibrias to run the country's affairs and take it to the possible destination. We remember Mr. Kibria and his contribution to this nation's emergence and progress with honour, reverence and above all gratitude.

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