

'It is better to be safe than sorry'

Dr. Mehedi Ansary, Professor of Civil Engineering from BUET talks to Ahmad Ibrahim of The Daily Star about the probable consequences of a high-intensity earthquake in Dhaka city.

The Daily Star (TDS): Often times people become complacent about the idea of earthquakes and precautions are not taken. Can you put into perspective what sort of devastation an earthquake of high magnitude may cause in our country?

Mehedi Ansary (MA): The biggest example we can draw in this regard is the Great Indian Earthquake of 1897 which was an 8.7 on the Richter scale. It caused widespread devastation and was felt over 650,000 km2, from Burma to New Delhi. About 1542 people died across the affected area due to that earthquake. At that moment, the population of Dhaka city was about 90,000 and there were about a hundred brick houses in the city. Right now, the population of Dhaka city is above 1.5 crore and there are some 4,00,000 brick houses in the city. To extrapolate, we have estimated that there might be an infrastructure loss of about 25% of the buildings and that 2,00,000 people might die should an earthquake of similar magnitude and intensity strike the country. That is a frightening number and therefore awareness needs to be the order of the day at the moment. Expert

opinions vary but there have been estimations that large earthquakes of such magnitude often recur in 100-200 years. An example of awareness can be drawn from the recent earthquakes in Chile and Haiti. The earthquake in Haiti was of 7 magnitude and 300,000 people perished while in Chile there was an earthquake of 8 magnitude and the human loss was 500. The lesson to be learned from these two instances is that of awareness. If we are prepared, we may be able to mitigate the damages.

TDS: What are the pitfalls that can be seen today in Dhaka and its surrounding areas due to a lack of planning for earthquakes?

MA: Firstly, Bangladesh is situated in a hilly area and mountain ranges are formed as a result of tectonic plate collisions therefore we are in a zone where earthquake activity is frequent. There are about 5 fault lines below Bangladesh and an earthquake of a high magnitude and intensity is very much possible. In an earthquake, the most vulnerable houses are the ones made of brick. The engineered houses that are so common today in the capital are less vulnerable in this regard. Yet the problem remains that most of these engineered houses are designed and built by non-engineers who do not apply the required earthquake proofing steps while building a



Dr. Mehedi Ansary

house. At the moment, there might be an economic loss of up to \$5 billion and as more and more people move into Dhaka the exposure risk becomes magnified. Another pitfall is the type of soil on which the buildings are constructed and many parts of the city stand on vulnerable soil which can easily damage buildings during earthquakes.

TDS: Which parts of Dhaka are most at risk from earthquakes?

MA: There are parts of Dhaka where the land has been filled up -- areas including Uttara, Rampura and Bashundhara can be examples. These are areas where the land has been filled with soil and the landfilling has not been adequate because people often choose profitability over everything else. Constructing buildings in this area without improving the condition of the soil beforehand makes these areas most vulnerable to earthquakes. Even recently the flood flow zones are being filled up to make way for building sites and this is very dangerous. Although these actions are advised against, the land-filling continues unabated by influential people intent on making profits. The government and planning authorities such as Rajuk need to take on a more proactive role to prevent the devastation which we might slip into.

TDS: What are the steps that can be taken by builders to make sure buildings are earthquake resistant?

MA: The first and foremost priority has to be the land on which the building is being constructed. If the building is situated in the areas where the soil has been badly made then the soil has to be improved. No amount of reinforcement can save the building if the soil is faulty. Secondly, the shape of the buildings should be as orthodox as possible

and the columns should use extra rods made of durable steel to reinforce the columns. Earthquake proofing requires a bit of money but this money has to be spent in order to make sure that the buildings are earthquake resistant.

TDS: What are the roles of the planning authorities to raise awareness and make us more prepared?

MA: The biggest role here is of the planning authorities. Rajuk must provide builders with a developed map showing the state of the soil in different parts of the city. If the land is faulty, then they must advise the builders to improve the land before starting construction. Next, they must take the steps of reinforcing already existing structures to make sure there aren't any large infrastructure losses. Yes, reinforcing is expensive but it pales in comparison to the loss that we might suffer. Another important step is regulation. Authorities must regulate the construction of buildings to make sure no one overlooks the rules and to avoid instances such as the Rana Plaza disaster. At the end of the day, it all comes down to planning. It is better to be safe than sorry. And given the sprawling state of the city an earthquake of a high magnitude stands to make us very sorry indeed.

Being realistic with Bangladesh

The Modi government needs to apply its mind in winning over Bangladeshis. It is important for peace and prosperity of both the countries. India must make Bangladesh a partner in its growth story. Every Bangladeshi must be made a stake holder in the peace and progress of both countries.

R.P. Singh, VSM

P RIME Minister Narendra Modi's visit to Bhutan, his first trip abroad after assuming office, was very successful. Modi's B2B mantra has had a very positive impact on the psyche of Bhutanese. Bhutan has traditionally been a close friend of India.

The next big item on the agenda of the Ministry of External Affairs is Sushma Swaraj's trip to Bangladesh. The story here is entirely different than Bhutan. Bangladesh was separated from India on August 14, 1947, as East Pakistan on the Two Nation theory. But this emotion soon got converted into anti-West Pakistan feelings due to milking of resources of the Eastern wing and discrimination and ill-treatment of Bengalis by the West Pakistani rulers.

During the 1971 Liberation War of Bangladesh, India went out of its way to extend all kinds of help. Ten million Bangladeshi refugees got shelter in India. The liberation force, Mukti Bahini, was trained, equipped, provided administrative backing and given launch pads for their operations against the Pakistani occupation army in Bangladesh. The Bangladesh Government in Exile was established in Kolkata and given all the facilities to control the operations of Mukti Bahini. On December 4, 1971, the Indian army established a joint command with Mukti Bahini and Liberated Bangladesh.

The Indo-Bangladesh bonhomie was short lived with the brutal assassination of Sheikh Mujibur Rahman. A secular Bangladesh was made an Islamic

Republic. Anti-India forces, including insurgents from the North-eastern states of India, were allegedly provided hideouts.

Things changed with Sheikh Mujibur Rahman's daughter, Sheikh Hasina, coming to power in 1996. But the BNP government of Khaleda Zia again put the clock back when she ruled Bangladesh from 2001 to 2006. Today, between 20% and 25% percent of Bangladeshis consider India an enemy but a great majority still considers it as a friend. After the Indian general election results were announced the Bangladeshi media was full of articles about insecurity of Indian Muslims and "illegal migrants" being pushed back by the Modi government. Sushma Swaraj must address all these issues and other genuine concerns of the Bangladeshis.

Prime Minister Manmohan Singh had created lot of hopes in the minds of the people when he visited Bangladesh in 2011. Before his visit, euphoria was created that India would sort out the Teesta water sharing issue and the enclaves would be exchanged. But Mamata Banerjee put a spanner in the wheel. At the last moment she chose to drop out from the prime minister's entourage to Dhaka. The whole show got spoiled. The agreement signed between the two countries about exchange of enclaves was not implemented.

Sheikh Hasina as the prime minister of Bangladesh had opened her doors for India. She went out of her way in pursuance of pro-India policies, particularly in assisting our security forces in nabbing the anti-India fugitives. She has successfully curbed all

the help to anti-Indian elements from Bangladeshi soil. She genuinely expected reciprocal steps from India which could boost her image and strengthen her government. Unfortunately, she did not get the desired response. The elite as well as common Bangladeshis feel betrayed by India for not meeting the aspirations of the masses. It is in this backdrop that Sushma Swaraj will be reaching Dhaka on June 26, 2014.

Bangladeshis expect that India will immediately address the issues of sharing of Teesta water, killing of Bangladeshis by BSF, exchanging enclaves at the earliest and increasing the number of items of duty free imports. On the other hand, India's concerns are mainly illegal Bangladeshi migrants and security of minorities, particularly Hindus and Buddhists.

The issue of Teesta water sharing is the result of magnified ego of some Indian politicians and lack of vision. Millions of cusecs of water flow into the Bay of Bengal, causing havoc by flooding vast areas of Northern West Bengal and North Bangladesh, during the monsoons. Starting from Teesta eastwards, large number of rivulets and nullahs up to Jaldhaka River carry huge quantities of waters into the Bay of Bengal during the monsoons. Teesta and Jaldhaka are perennial rivers whereas others are seasonal. A small barrage on Jaldhaka River has been built, primarily for electricity generation. All the rivers of Northern West Bengal can be linked and large number of mini dams can be constructed on these water sources. Plenty of electricity can generated which

can meet the requirement of whole of Jalpaiguri District. Whole of narrow belt of Northern West Bengal can be irrigated and the water requirement of North Bangladesh can be easily met.

The incidents of BSF firing are caused mainly due to attempts of cattle and other forms of smugglings and illegal border crossings. The BSF battalions while serving on the LAC in J&K get used to firing on any intruder into our territory. When they get deployed in the Eastern sector the habits of Jawans of shooting prevail on their psyche. Every BSF shooting incident hits the headlines in Bangladeshi media and causes tremendous damage to the otherwise friendly relations. In order not to hurt the emotions of average Bangladeshis these persons must be apprehended by the security personnel and handed over to their Bangladeshi counterparts for legal action. For this, a foolproof intelligence network has to be built-up concomitantly with sound vigilance by BSF in all bordering states. Close liaison and coordination between the two countries border management agencies is very essential.

The lives of the people in the enclaves inside each other's country are miserable. They are citizens of no country. Their safety, security and dignity are always in danger. Their women folk are subjected to harassment of all kinds. They can hardly avail any facility which is provided to other citizens of India or Bangladesh. The agreement on swapping of enclaves signed by the previous government may have lacunas but it needs to be implemented on humanitarian grounds. Losing some acreage by India

should not hinder the welfare of so many people. The West Bengal government needs to be convinced about the merit of enclave swapping.

There is hardly any family in Bangladesh which was not affected by the genocide and atrocities of Pakistani army in 1971. The people in the age group of fifty five and above nostalgically recollect the Indian contribution in the Liberation War. There were more than one hundred thousand Mukti Bahini cadres who fought the Pakistan occupation army with India's help. More than hundred of them were officers. They are addressed as Mukti Joddhas (Freedom Fighters) by people of Bangladesh. They have large number of friends among the Indian veterans of 1971 War. The Indian government must make use of Indian veterans of the 1971 War to establish and strengthen the people to people friendship. Films and TV serials can showcase the sacrifices of the Indian soldiers alongside the Bangladeshis. Such steps can go a long way in correcting the distorted history. This can also help foster friendly relations between the future generations of the two countries.

The Modi government needs to apply its mind in winning over Bangladeshis. It is important for peace and prosperity of both the countries. India must make Bangladesh a partner in its growth story. Every Bangladeshi must be made a stake holder in the peace and progress of both countries.

BEETLE BAILEY

by Mort Walker

HENRY

by Don Trachte

QUOTABLE Quote

We've got the most prosperous culture in human history and we've also got the biggest spiritual hole in human history.

Mark Victor Hansen

CROSSWORD by Thomas Joseph

ACROSS

1 Nick and Nora's dog

5 Corner pieces

10 Article

12 Comic Kovacs

13 Friend of Han

14 In itself

15 Horace's "--- Poetica"

16 Wall St. debut

18 Nile serpent

19 Brown pigment

21 Iowa State setting

22 Major stores

24 Calendar markings

25 Symbol of surrender

29 Bike part

30 Ultrasound focus

32 Gun

33 Work wk.'s end

34 Game cube

35 Laughable

37 Peter of Herman's Hermits

39 Feasted

40 Stuck, in a way

41 Plane count

42 Simple cart

DOWN

1 Travel aid

2 Zhivago's portrayer

3 Tree trim

4 Linking word

5 Nonpayment result, for short

6 Vein contents

7 Freeway entrance

8 Smacks on the face

9 Oozes

11 Attacking

17 Vaccine pioneer

20 Low point

21 Usher's place

23 Testing the weight of

25 Frank

26 Morro Castle site

27 Passion, in Plymouth

28 Former British coin

29 Crossword diagrams

31 Run-down

33 G-men

36 Trawling need

38 Unoriginal

Yesterday's answer

CRYPTOQUOTE

5-14

XITY K'N RTER, K XFYD BD WT MTNTNWTMTFR FO F NLOKSKFY BH OBNT XBMDI FYR OLWODFYST.

-- HMTRRKT NTMSLMQ

Yesterday's Cryptoquote: WHEN WE SEE A NATURAL STYLE, WE ARE ASTONISHED AND CHARMED; FOR WE EXPECTED TO SEE AN AUTHOR, AND WE FIND A PERSON.

-- BLAISE PASCAL

A XYDLBAAXR is LONGFELLOW

One letter stands for another. In this sample, A is used for the three L's, X for the two O's, etc. Single letters, apostrophes, the length and formation of the words are all hints. Each day the code letters are different.

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