



PHOTO: RASHED SHUNON

Ainun Nishat, former vice chancellor of Brac University, speaks at a roundtable discussion organised by The Daily Star and BSRM at The Daily Star Centre yesterday. The experts urged formulation of a comprehensive coastal zone-specific building code as the country's maritime areas witness massive development activities.

Call for special building code

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India has a separate code for construction within 30km of coastal areas for ensuring longer lifespan of the infrastructures, the speakers said at a discussion on "Resilient Infrastructure for the Blue Economy" organised by the BSRM, a steel mill, and The Daily Star at the newspaper's office in the capital.

There should be a holistic policy for using special kinds of materials strong enough to withstand the coastal environment, especially the mega-infrastructures like Payra River Port, Matarbari Power Plant and economic zones in maritime areas, they said.

They cited the example of cyclone centres built in coastal areas in the 1960s and 1990s, which have been affected by corrosion as they were built with inappropriate construction materials.

"We need a separate code for infrastructures in maritime zone," said AMM Safiullah, vice-chancellor of Ahsanullah University of Science and Technology.

The current Bangladesh National Building Code needs to be revised and it should address issues like flood level, cyclone and quality of materials for coastal areas, Safiullah said.

"In the past, we used to think about the strength of the structures, but now we also think about durability. So we need a separate zone-specific building code for different areas, especially for the maritime zones," said Prof AFM

Saiful Amin of Buet.

Japan has built structures in vast reclaimed sea areas using special kinds of steel and construction materials for longer lifespan of those establishments, he added.

Ahsan H Mansur, executive director of Policy Research Institute (PRI) of Bangladesh, said although Bangladesh was not yet ready to benefit from maritime resources, there were plenty of scopes to harness benefit from coastal economy.

However, before coastal development, the environmental challenges should be addressed, he said, adding that Bangladesh was failing to reap benefit from tourism in coastal zones despite having huge potentials.

Every year, thousands of foreign and local tourists visit Cox's Bazar and Kuakata, but these spots lack proper amenities, he added.

Rear Admiral Khaled Iqbal, vice-chancellor of Bangabandhu Sheikh Mujibur Rahman Maritime University, said Bangladesh as a delta had a great potential for port-centric economic development.

Bangladesh needs at least eight sea ports, including one in Sitakunda of Chittagong, said Khaled, also former chairman of the Chittagong Port Authority.

Construction of more ports is necessary to ensure multimodal transport, which is required for the country's ever swelling economic activities, he said.

BEZA Executive Member Mohammed Ayub said maximum economic zones would be constructed in coastal areas. So the structures should be resilient.

The Daily Star Editor and Publisher Mahfuz Anam, who moderated the event, said Bangladesh lacked adequate infrastructures.

"We built a lot of infrastructures, but what is the quality of those infrastructures?" he asked.

The country is now building some mega infrastructures like Karnaphuli tunnel in Chittagong. "But we are really prepared with the right kind of code for the construction of those infrastructures?" he said.

Prof Ainun Nishat, former vice chancellor of BRAC University, said Bangladesh needed a lot of institutes for producing human resources.

A lot of expertise is needed to explore the gas, oil and other mineral resources, he noted.

In his keynote paper, Commodore (retd) MN Absar said exploring more than 1,18,000 square kilometers of maritime areas is a right step by Bangladesh.

It is not possible to control the natural hazards, but it is possible to take measures to minimise their impact. "Bangladesh should go for formulating a building code for coastal areas," Absar said.

Abdullah Al Mamun, director of Bangladesh Road Research Laboratory of

the Department of Roads and Highways, said "We are building infrastructures on a contingency basis ... There should be an independent think-tank for developing infrastructures."

Prof Tarek Uddin, head of the department of civil and environmental engineering at the Islamic University of Technology, said Bangladesh needed sustainable structures with a lifespan of 100 years or more.

"Sea water is very hostile to concrete. We must have a good construction policy," he said, adding that many cyclone shelters were destroyed within 15 years in the coastal areas as those were not constructed using special materials.

Fahima Shahadat, head of infrastructure and technical services at Lafarge Holcim Bangladesh Ltd, said it was time to develop the country using specialised materials.

"We have to work on Bangladesh National Building Code," she said.

The other speakers include Atiq Rahman, executive director of Bangladesh Centre for Advanced Studies; Prof Sujit Kumar Bala, director of the Institute of Water and Flood Management at Buet; Prof Ishtiaque Ahmed of Buet; Ishrat Islam of Urban and Regional Planning at Buet; and Brig Gen (retd) Shahedul Anam Khan, associate editor of The Daily Star.

Special kind of construction materials

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advisory body to oversee the work and its technical qualities of the much talked-about 1320-MW power plant being built under Bangladesh-India joint venture, they said.

They came up with the concern at a discussion on 'resilient infrastructure for the blue economy' jointly organised by The Daily Star and steel (re-rolling) manufacturing company BSRM at The Daily Star Centre in the capital.

It may be mentioned that Padma Bridge has a national advisory body consisting of prominent national experts like Prof Jamilur Reza Choudhury, Prof Shamim Z Bosunia and some other noted experts, who monitor the work and suggest technical changes.

The specification for special kind of cement, concrete and steel required for withstanding the corrosive saline weather, tidal surge and coastal wind load used for a similar power plant in Chennai are not being used in case of Rampal, said Prof AMM Safiullah, vice-chancellor of Ahsanullah University of Science and Technology.

"Epoxy-coated iron bar, for example, is needed for reinforcement of structures in the coastal regions," he said.

Prof Ishtiaque Ahmed of civil engineering department at Buet echoed Safiullah.

It is the similar power plant and the same contractor building the schemes in Chennai and Rampal but they are not using the same coastal weather-resistant construction materials in Rampal project as they are doing in case of Chennai, speakers said.

Specification of such construction materials is neither mentioned in the Rampal tender documents nor sufficiently in the Bangladesh national building code, said M Firoze, head of marketing and product development of BSRM, adding that specifications should be incorporated in the national code.

In India, specifications of special construction materials for the coastal zones are required by law, he said.

Prof AFM Saiful Amin of civil engineering department at Buet, said that specifications of materials are needed for durability but use of epoxy-coated steel is not the only solution.

There are other options as well, for example, thick concrete covering is another way that may address the challenge of coastal zone construction, he said.

Finally, the national building code has to be revised to incorporate dedicated zone-wise codes on coastal zone, bridges and roads construction, he said.

It is time that the government incorporates updated and specific building codes for coastal zone construction and requires the manufacturers for improved standard of materials, said Fahima Shahadat, head of infrastructure and technical services of LafargeHolcim Bangladesh.

Abu Salem Md Nuruzzaman, superintending engineer of Roads and Highways Department, said that the issue of specialized construction materials for Rampal power plant was raised very late and that tender documents of scheme cannot be altered at will.

As to why the government on its

own did not require coastal weather-resistant materials for the scheme, Nuruzzaman said that material like epoxy-coated steel was 'not available' in the country.

Bangladesh-India Friendship Power Company Limited, implementing company of the mega project, launched the construction work in April last year and is expected to complete the project in 41 months.

As to the observation that specialized non-corrosive construction materials were not being used in the construction of Rampal power plant, a general manager of Bharat Heavy Electricals Limited, the contractor building the power plant, said asking for not to be named that the apprehension over the plant's life span is unfounded.

"We do not know upon what engineering calculation one could say that," he said adding that they are using corrosion-resistant steel, though not exactly epoxy-coated ones, and other materials pursuant to American (ACI) code and British Standard building code.

He also said that they have so far procured 12500 tons of steel locally from BSRM.

He however admitted that they are not following Bangladesh National Building Code (BNBC), as it is not required by the contract document and that they are going as per terms of the contract.

It may be pointed out that BNBC does not have specific zone-based code for construction in the coastal belt.

Bangladesh and India are jointly constructing the Maitree Super

Canadian Arctic.

Crucially, this was also the first discovery of such a lake full of brine – a feature the researchers think arises due to salty rocks dissolving in the water.

It is this salinity that marks the Devon Ice Cap lakes out. If they turn out to be home to microscopic life – something the researchers think is a possibility – it will help scientists understand life outside our planet.

"We think they can serve as a good analogue for Europa, one of Jupiter's icy moons, which has similar conditions of salty liquid water underneath – and maybe within – an ice shell," said Rutishauser.

Europa is often singled out as one of our greatest hopes for finding extraterrestrial life. Nasa has previously explored the possibility of sending a lander to the distant moon to search for alien life.

Dhaka today signs

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hallmarks of genocide as thousands of Rohingyas were killed and raped.

Amid global criticism, Myanmar rushed to sign a bilateral repatriation deal with Bangladesh in November last year, but the UN and Rohingyas said the conditions in Rakhine state were not conducive for their return.

"Conditions in Myanmar are not yet conducive for the voluntary, safe, dignified and sustainable return of refugees," the UNHCR said in a statement, adding that the responsibility remains with the government to create such conditions.

Bangladesh in February handed Myanmar a list of 8,032 Rohingyas for verification of their residency there. Myanmar said only some 700 of them were eligible to return. Meanwhile, there are reports of deserted Rohingya villages being bulldozed to destroy the evidence of atrocities.

Bangladesh officials recently said it has been difficult for them to ensure the voluntariness of the Rohingyas people's return.

"Now that the UNHCR is getting involved, it will make sure the return

is voluntary and safe," Abul Kalam told The Daily Star yesterday.

Htin Lynn, Myanmar's ambassador to the UN in Geneva, told Reuters on Wednesday that he was confident that his country could reach a repatriation deal with the UNHCR by the end of April.

Meanwhile, the UNHCR and King Salman Humanitarian Aid and Relief Centre (KSRelief) have signed a US\$3 million agreement to provide emergency assistance to Rohingya refugees in Bangladesh.

The agreement was signed by Abdullah Al Rabeeah, supervisor general of KSRelief, and Khaled Khalifa, UNHCR regional representative to the Gulf Cooperation Council (GCC), said a UNHCR statement yesterday.

"Following the issuance of the royal directives to allocate US\$20 million in response to the most recent Rohingya crisis, KSRelief has initiated a number of key projects and has worked closely in coordination with the UNHCR and Bangladesh government to attend to the most urgent humanitarian needs of the Rohingya refugees," the statement quoted Rabeeah as saying.

Demo called off

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yesterday following Prime Minister Sheikh Hasina's announcement of scrapping of the quota.

Though that was not what they had demanded, they welcomed the PM's decision and placed several fresh demands including swift issue of a gazette on the PM's speech.

"The honourable Prime Minister Sheikh Hasina has accepted the sincere demands of the younger generation. We are postponing our protests until the notification is issued," said Hasan Al Mamun, convener of Bangladesh Shadharan Chhatra Odhikar Sangrakkhan Parishad.

At a press briefing at Raju Memorial sculpture near TSC at Dhaka University, he put forward the platform's other demands including unconditional release of all protesters imprisoned over the past few days, withdrawal of the cases filed against them and stopping harassment of the general students who took part in the movement.

"Any future harassment would be met with future protests," said Nurul Haque, joint convener of the parishad, at the briefing.

They also demanded payment of medical bills of protesters injured in violence.

"On behalf of all the students, we would like to present our Prime Minister with the title 'Mother of Education'," Nurul said.

On Wednesday night, the PM in parliament announced scrapping of the quota system, and asked students to end demonstrations over the demand for quota reforms and return to classes.

Following her announcement, the students said they took Wednesday night to discuss various aspects of the PM's speech before coming up with a decision yesterday.

Meanwhile, Senior Secretary of Public Administration Ministry Mozammel Haque Khan yesterday said that a gazette on the matter will be issued after receiving the Prime Minister's instruction.

"There is no hurry. No recruitment process will begin immediately," said the senior secretary while talking to reporters at the secretariat, reports UNB.

Responding to a question on whether the quota system would be reformed or repealed, the secretary said that it would be known after getting the order of the prime minister.

"People are coming up with different opinions and speculation which are creating confusion. This is not an easy task; rather [it is] complicated to some extent. However, everything will be clear after getting the PM's directive."

Cabinet Secretary Md Shafiqul Alam said a committee would be formed to scrutinise the quota system. The next step would be taken according to the committee's recommendations.

Students of public universities and then the private universities across the country -- centrally led by Dhaka University -- took to the streets demanding reforms of the quota system in one of the most widespread protests in recent times.

The protesters blocked key points in the capital and also roads and highways elsewhere for the last four days, crippling the transport system.

However, the demos turned violent on Sunday night after police fired tear gas shells and rubber bullets, used water cannons and charged truncheons to disperse the demonstrators who blocked the Shahbagh intersection for over five hours. The clashes went on throughout the night, leaving around 100 people injured.

Early Tuesday, the movement took an ugly turn after news that two students of Kabi Sufia Kamal Hall of Dhaka University were tortured by hall unit Chhatra League president Iffat Jahan Isha. Isha was also later assaulted for her

actions on the same night.

The DU authority immediately suspended Iffat from the university. BCL also expelled her from their organisation.

The BCL yesterday also formed a four-member probe committee to investigate the "unwanted incident" at Kabi Sufia Kamal Hall. The committee was asked to submit its report within 24 hours.

However, in a statement, around a hundred former Chhatra League leaders protested and condemned the attack on Iffat Jahan Isha. They also demanded withdrawal of the expulsion order against Isha and immediate action against the attackers of VC's residence.

During the demonstrations, four cases were filed against a huge number of unidentified people on charges of vandalism and arson. The charges stemmed from the attack on the residence of DU Vice Chancellor Md Akhtaruzzaman. Other charges were related to obstruction of justice during the quota-reform demonstration in Dhaka.

Under the banner of the parishad, the students launched the movement on February 17 over their five-point demand, including reducing the quota privilege to 10 percent from 56. In the last two months, they held several protest programmes at Shahbagh and on the campus to press home their demands.

ATTACKERS ARE PROFESSIONALS
Dhaka University Vice-Chancellor Prof Akhtaruzzaman yesterday said that the cases filed over vandalising his residence had no connection with the protest.

"The cases were filed against those who launched the attack with the intention of killing. We think that a university student cannot be involved in such [an] attack," he said at his office.

He said the whole incident is now under supervision of law enforcing agencies and a university syndicate also formed a probe body to investigate the incident.

Replying to a question, he said he asked the law enforcers not to harass any protestor in this regard.

Asaduzzaman Mia, commissioner of Dhaka Metropolitan Police, yesterday said those who vandalised and ransacked the DU VC's residence were professionals.

"The way the attack was carried out and how the attackers took away the CCTV box and hard disk, it seems to be the work of professionals. We have already appointed our senior officers to investigate the case," he told reporters.

A group of youths had stormed the residence in the wee hours of Monday and smashed almost everything to bits. They torched two cars and vandalised two others.

"No one is above the law. The vandalism on DU campus and the attack on VC residence are unexpected and we are extremely saddened," he said, adding those involved in the incident will be tried.

Talking to The Daily Star, a number of top officials of DMP said they were actually depending on traditional investigation to track the accused as they could not gather any footage from the scene.

"We've already activated our source based intelligence to trace the offenders with top most priority as prime minister directed to ensure full-proof investigation," an official said.

Although police have no CCTV footage from around the spot they are collecting the footage from the camera installed at Dhaka University campus and also from different media, said the officials.

They issued instructions to field-level investigators to not arrest or detain any suspects valid suspicion, they added.

Salty lakes offer clues about life on Europa

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By sending electromagnetic waves through the ice and measuring them as they bounce back, it is possible to "see" through the ice and build up a picture of what lies beneath it.

"We weren't looking for subglacial lakes. The ice is frozen to the ground underneath that part of the Devon Ice Cap, so we didn't expect to find liquid water," said Rutishauser, who is based at

the University of Alberta.

"We saw these radar signatures telling us there's water, but we thought it was impossible that there could be liquid water underneath this ice, where it is below -10C."

The discovery was published in the journal Science Advances.

Other lakes have been found buried beneath ice caps, mainly in Antarctica, but this was the first one discovered in the