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Healthcare sector still ill-prepared for a larger outbreak

What are we waiting for?

ACCORDING to experts, should we see any significant surge in Covid-19—or anything close to the situation in India—our healthcare sector will not be able to cope with it. Despite more than a year having passed since the pandemic began, why is our healthcare sector still not in a position to manage any large-scale spread of Covid-19? When thousands of people in the country have been infected and/or died from the disease, shouldn't the government have prioritised preparing the healthcare sector to handle a bigger crisis much better by now?

When our larger next-door neighbour is collapsing from their Covid-19 crisis, there is no reason for us to sit back, relax and hope we are going to get lucky and escape any further surge in cases. That type of attitude—of hoping for a miracle—is suicidal at this point, particularly given how likely another rise in cases is after the Eid rush and since the Indian variant of the virus has been detected in several areas. Already, on May 19, the number of newly infected increased to 1,608 from 261 on May 15. Given that the number of people being tested has kept on declining throughout the last months, it is quite possible that the actual number of infected is much higher, and so is currently being underreported. But still, the government has failed to equip most of the upazila health complexes with the necessary human resources and life-saving equipment like high-flow oxygen supply, crucial to treating critical Covid-19 patients.

Many district-level hospitals are yet to get a central oxygen supply system. And the antigen-based testing has still not gotten much traction. Although the number of beds available for Covid-19 patients in the country has increased over the last one year, it is still nearly not enough to handle any larger outbreak which we are seeing in India and Nepal. Moreover, health officials said that a total of 134 district-level hospitals would be equipped with a central oxygen supply system by June this year. However, by the end of April, the installation of the central oxygen supply system was completed in only 73 hospitals—work on the central oxygen supply system in 61 hospitals is still incomplete. And to add to that, our domestic oxygen production capacity is barely covering the current oxygen demand, which means that any increase in demand cannot be satisfied with our current capacity.

All of these have to be addressed by the government on an urgent basis. Unfortunately, the performance of the health ministry—and officials—throughout this pandemic period has not given us much assurance that they are capable of doing this. Therefore, the government must give special attention to rectify this. If necessary, the government should set up a special monitoring and implementation commission comprising experts to do the job that the health ministry has so far failed to do. But whatever it is that the government decides, ultimately, it must ensure that the healthcare sector is prepared in the event of a huge outbreak of Covid-19 cases.

Giving Rohingyas livelihood options

A humane, practical step until repatriation is possible

THE UNHCR chief Filippo Grandi has called for making livelihood options more available for the Rohingya refugees in Bangladesh, and we agree that it would indeed be "risky" to make them into a dependent group for so long. The Joint Response Plan (JRP) by the UN, Bangladesh and other aid agencies was aimed at mobilising USD 943 million to support the nearly one million Rohingya refugees and five lakh members of the Cox's Bazar host community. Surprisingly, only around 35 percent of the requirements has been pledged so far, amounting to USD 340 million. While we hope that donor agencies will live up to their pledges and agree that repatriation is the "ultimate solution", we do think the refugees should have the opportunity to earn.

Given the current Covid-19 situation and Myanmar's own political crisis created by the military coup in February, repatriation seems to be unlikely in the foreseeable future. It is, therefore, only logical to not keep the Rohingyas stuck in a situation where they only depend on foreign and local aid. A good start would be for the UN to swiftly assess how it will go about its operations in Bhashanchar, an area hosting about 20,000 refugees and with a capacity for 100,000.

We would urge the government, the UN, and other international bodies to work together to create viable employment and livelihood opportunities for the Rohingya refugees. We believe it is crucial for them to be able to find their own identities, separate from either the Myanmar or Bangladeshi narratives. The large number of Rohingya youths, for instance, need to be productively occupied. It is commendable that Bangladesh has made it possible for Rohingyas to get access to education and some of them are engaged in various activities for their livelihoods, but more needs to be done to alleviate the difficult state of limbo they are facing. Repatriation is surely the ultimate goal and would be ideal for all parties involved. But there is no certainty yet for when mass repatriation would be possible. So local and international bodies alike must help enable the Rohingyas to build/find their own unique livelihoods, until they can be repatriated.

Is Bangladesh running out of gas resources?

BADRUL IMAM

BANGLADESH had its first gas field discovery in Sylhet in 1955. Since then, a total of 27 commercial gas fields have been found in the country with a cumulative original recoverable gas reserve of 28 trillion cubic feet (Tcf), according to Petrobangla official estimates. Commercial production of gas began in 1960 and about 18 Tcf of gas has been produced and consumed by now, leaving a remaining gas reserve of 10 Tcf. Petrobangla estimates a further 1 Tcf of gas in the possible reserve category. On that count, a total of 11 Tcf of gas is reasonably assumed to be in hand for consumption.

On the production side, Bangladesh had seen a steady rise in the local daily gas production rate until mid-2016, when the production level peaked at about 2,750 million cubic feet per day (mmcfd). But since then, the production rate started to decline slowly and steadily, and came down to the level of 2,280 mmcfd by the beginning of May 2021. The chance that local production will rise again is remote to nil in the near future, unless new gas fields are discovered to supplement the known reserves. Gas production is projected to steadily decline in the years to come, and eventually the present reserves will be exhausted at some point. A commonly asked question, therefore, is when the present reserve will run out.

So it's important to assess when that may happen. Let's take the Petrobangla data that Bangladesh has a remaining gas reserve of 11 Tcf. The annual supply of local gas has been gradually decreasing from 0.969 Tcf in FY 2017 to 0.961 Tcf in FY 2019, and will decrease further in the coming years, as per Petrobangla data source. It is estimated that the supply from existing reserves will come down to about 0.365 Tcf annually by 2030 and even less by 2035. By 2041, Bangladesh will probably see the last few bubbles of gas from the existing reserves before being depleted completely.

This gas depletion syndrome has swept over the tables of the policymakers. In a quick fix to the problem, import of liquefied natural gas (LNG) has been initiated. Since late 2018, the shortfall of gas supply is being partly compensated through the import of LNG. But LNG is an expensive fuel and costs three times more than the local gas. It is envisaged that LNG will gradually take more and more share of the gas supply in Bangladesh before being the predominant mode of supply in the future. If that happens, the economy will be under pressure, having to live with a large annual LNG import bill in a fund-constrained country. That makes many policymakers uncomfortable as they can foresee a major crisis looming under an unstable energy market.

Bangladesh needs to undertake a serious gas exploration drive and reduce its dependence on imported energy. FILE PHOTO: STAR

Interestingly, few people in the corridor of power seem to bother much to ask why the gas reserve scenario has come down to this low—despite the fact that Bangladesh is a very prospective gas province and its gas potential has been highly rated by international and national geoscientists alike. The answer is simple: Bangladesh did not explore enough to bring the "yet to find" gas to the surface and its gas potential remains hidden. Bangladesh remains one of the least explored countries among the prospective gas basins in the world. As a matter of fact, Bangladesh drilled only 28 exploratory wells in the last 20 years, meaning an average drilling rate of a little more than one well per year. This is way too little exploration by any standard. The country consumed about 13 Tcf of gas during the last 20 years, but made new discoveries of less than 2 Tcf of gas.

How much gas may still be hiding beneath the surface in Bangladesh? There have been several assessments of the amount of undiscovered (yet to find) gas in the country by international companies, institutions and joint ventures. Two of the most widely known and accepted assessments are done by the United States Geological Survey (USGS) and the Norwegian Petroleum Directorate (NDP) forming joint ventures with Bangladeshi counterparts. In 2001, a USGS-Petrobangla joint assessment team, after a two-year study, reported that there is a mean (50 percent) probability of finding 32 Tcf of gas resources in the country. In 2002, a Norway-Bangladesh joint venture (NDP-HCU) submitted its assessment report suggesting that the country has a mean (50 percent) probability of finding 41 Tcf of undiscovered gas resources. Prior to these studies, the Shell Oil Company in 1999 suggested a total undiscovered resource potential ranging from 20 to 40 Tcf, with a mean of 32 Tcf. These estimates are based on the geological probability factors responsible for gas occurrences and, therefore, refer to gas resource (that is, still unknown) rather than gas reserve (that is, known).

Where are these gas resources likely to be found? In the explored basins around the world, it has been noticed that as the exploration progresses, there are three stages of success peak. At the initial stage, simple types of gas-oil reserves (like in simple anticline structures) are found and these form the first success peak. A second success peak occurs when the exploration moves to complex reserve types (stratigraphic reserves), and a third success peak occurs as the exploration moves to deep ocean. Bangladesh is yet to cross the first stage, meaning it has not yet completely explored the simple structures. For example, there are still many anticlinal structures in Chittagong Hill Tracts and some of these—like Patya, Sitapahar, and Kasalong—are rated as highly potential for containing gas. As for the second stage, little is done or drilled considering the large area of delta plain land in central and southern Bangladesh, where complex stratigraphic reserves occur abundantly. And finally, the third stage in the deep ocean is totally unknown as not a single well has been drilled in the deep offshore. This is despite the fact that large offshore gas discoveries are made on the other side of the maritime boundaries with both Myanmar and India in the Bay of Bengal.

From the above, it is clear that gas exploration in Bangladesh remains in an immature stage. With so many unexplored areas and potential reserve types, there are high prospects of finding significant new gas reserves. In 2001, a group of people launched a campaign for gas export from Bangladesh and cooked up a theory that Bangladesh is floating on gas. Today, 20 years later, a second group is proposing that gas resources in Bangladesh are about to exhaust, and suggests energy imports as the major source of energy supply. None of the notions—"floating on gas" or "depletion of gas"—have any scientific merit, and are presumably promoted by groups of people with vested interest. A serious exploration drive can certainly offer Bangladesh enough gas to offset the policy of overwhelming dependence on imported energy.

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NOTICE

The weekly column by Mahfuz Anam, Editor and Publisher, *The Daily Star*, couldn't be published today for an unavoidable reason. It will be published next Friday.

Refugee crisis, green energy, and climate responsibility

HASEEB MD IRFANULLAH

IN the second half of 2017, the government did something unprecedented in response to an unprecedented situation—it sheltered about 750,000 Rohingyas fleeing from a "textbook example of ethnic cleansing" by the Myanmar army. Our response to this humanitarian crisis had serious environmental and ecological consequences. We, however, could see three stages of development to make the situation better.

First, the government and its humanitarian partners made saving people's lives their first priority by giving them shelter, food and health services, and protecting them from violence, human trafficking and disasters. Conserving the forests or biodiversity was not on their priority list. As a result, we saw the world's largest refugee camp being built in the biodiversity-rich Cox's Bazar-Teknaf peninsula, the temporary address of a million refugees.

A government assessment estimated that by the middle of 2019, the ecological and biodiversity damage of the Rohingya crisis was about USD 285 million. In addition to the destruction of about 2,500 hectares of forest land to build the camps, another 750 hectares of forests were destroyed as Rohingyas collected firewood to meet their daily energy needs.

Second, when the initial rush of humanitarian response settled down a bit, the government, UN agencies and their partners started exploring alternative sources of fuel so that the remaining forests could be saved from the cooking stoves of the camps. After trying out a few options, liquefied petroleum gas (LPG), provided in cylinders to be used with a stove, was identified as the best option available.

After a successful piloting with 6,000 families in August 2018, the LPG support was gradually scaled up in the refugee camps. By early 2020, all of about 200,000 Rohingya refugee families were brought under the LPG distribution and refill coverage.

In late 2019, UNHCR, IUCN and the East West University in Dhaka assessed the impact of LPG distribution among Rohingyas and the host community in Cox's Bazar on forest resources. Their assessment showed that the firewood consumption by refugee families reduced by almost 80 percent—instead of about 5 kilogrammes, a family was using 1 kilogramme of firewood a day. These fascinating findings prompted LPG distribution becoming an integral part of 2020 and 2021's Joint Response Plans—the billion-dollar annual plans prepared by the UN agencies and endorsed by the government of Bangladesh to address the ongoing Rohingya humanitarian crisis.

Third, maintaining 100 percent LPG coverage in the camps is very expensive. Efforts, therefore, continued to make this system efficient. In late 2020, about 400 Rohingya families were given pressure cookers on a pilot basis. Daily monitoring data showed improved energy efficiency by 30 to 50 percent. If scaled up, this could drastically change the energy consumption levels in the camps.

I see Bangladesh similarly following three stages as it fights climate change by reducing carbon emissions.

In addition to the Rohingya crisis, Bangladesh is also facing the climate crisis, an unprecedented global challenge of our time. Reducing carbon emission by stopping the use of fossil fuels like coal and oil, and practising innovative zero-carbon solutions, are the only way out from this situation. As per the Paris Agreement of 2015, we expect the big greenhouse gas emitting countries and regions, such as China, the USA, European Union, India, and Russia, aggressively reducing their emissions.

Bangladesh may take this drastic zero-carbon path but this might hamper its development vision: becoming a middle-income country in the next couple of years and a high-income country by 2041. Since Bangladesh has made economic graduation its first choice, abandoning carbon-rich fossil fuels altogether cannot be on its top-priority list.

As we have seen in the ongoing Rohingya crisis, we must not wait to completely tackle the humanitarian emergency to perform our environmental responsibility. Similarly, Bangladesh's transition from a carbon-based energy system to a renewable one should also continue along with its economic growth, not *after* becoming a developed country in 20 years' time.

Bangladesh has recently shown its positive attitude in the draft National Solar Energy Roadmap 2021-2041. Although the country now produces 546 MW energy from solar energy systems, this roadmap envisages producing 6,000 MW by 2041 in a business-as-usual or low-case scenario, assuming that the anticipated policy, finance, cooperation, and technological conditions will be met and maintained. Such an increase can reduce 6.3 million MtCO2 equivalent greenhouse gas annually, which is around 7 percent of the greenhouse gas all Bangladeshis are now producing every year. This amount may increase by five times if Bangladesh could produce 30,000 MW solar energy, in a high-case scenario, over the next 20 years.

In the Nationally Determined Contributions (NDC) document of Bangladesh, submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, the country promised to reduce carbon emission in transport, industry and power sectors by 5 percent by 2030, with its own initiative. If international funding and technological support are available, this reduction could go up to 15 percent. This NDC is now being revised with updated sector-wise mitigation targets, where renewable energy is expected to have an important role to play.

The highly-anticipated Mujib Climate Prosperity Plan is expected to guide us through the current decade towards resilience and prosperity by creating employment, increasing per capita income, and ensuring high annual GDP growth. The plan, it is hoped, will also ensure energy savings and efficiency in line with Bangladesh's Energy Efficiency and Conservation Master Plan up to 2030, which envisages 20 percent more energy efficiency by 2030, compared with 2013.

Like Bangladesh's experience of ensuring environmental and energy security in the Rohingya crisis, we need to monitor and evaluate the implementation and effectiveness of the above plans as well. Based on such assessments, we may need to update our plans and targets, explore innovations, and revisit our priorities.

Such re-prioritisation will guide our future energy strategies—whether we should extract oil and gas from the bottom of the Bay of Bengal, or explore on-shore and off-shore renewable energy sources like solar, wind, ocean wave or marine algae (to produce biofuel), or work with our upstream neighbours to generate hydroelectricity.

Large swathes of forest land in Cox's Bazar were destroyed to build refugee camps and meet their energy needs. FILE PHOTO: PHILIP GAIN

Any such re-prioritisation should be openly discussed and debated among the concerned stakeholders before making a final decision—the plan should harness available advanced technologies through international cooperation, be in line with Bangladesh's development trajectory, and match the country's climate leadership.

While developed countries are historically responsible for climate change, Bangladesh cannot overlook its present climate mitigation responsibilities to build a resilient future. Ensuring economic growth and transitioning to greener energy is a balancing act that we have to play.

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