

EBL CLIMATE CHANGE ACTION AWARDS 2025

Pioneers of sustainability

Eastern Bank PLC (EBL), in collaboration with the German, French, and Danish embassies, has taken a commendable initiative to promote sustainability and climate action in Bangladesh with the inaugural EBL Climate Change Action Awards 2025.

Recognising excellence across five key categories—Green Manufacturing, Energy Efficiency, Climate Smart Agriculture, Climate Education & Policy Advocacy, and Climate Adaptation & Resilience—the award seeks to inspire and amplify transformative efforts shaping a greener, more resilient future. Through this visionary endeavour, EBL reaffirms its commitment to fostering innovation, policy leadership, and actionable change in the fight against climate change.

This year, 238 participants submitted their initiatives, with 25 projects initially shortlisted. After a rigorous evaluation by a distinguished jury, five ventures were awarded for their impactful actions. The jury included Dr Ainun Nishat, Professor Emeritus at BRAC University; Syed Matiu Ahsan, Programme Advisor at the Royal Danish Embassy; AKM Azad Rahman, Project Coordinator at UNDP Bangladesh; MD Shamsuddoha, Chief Executive of

CPRD; Yann Riegel, Deputy Head of the Economics Department at the Embassy of France in Bangladesh; Jan-Rolf Janowski, Deputy Head of Mission at the Embassy of the Federal Republic of Germany in Dhaka; and Florian Hollen, Counsellor and Head of German Development Cooperation at the Embassy of the Federal Republic of Germany in Dhaka.

Palki Motors was honoured in the Green Manufacturing category for providing eco-friendly yet affordable transportation. The Energy Efficiency award went to the Center for Housing and Building Research for promoting green technologies like ferrocement and energy-efficient concrete blocks in sustainable housing. Dr. Chashi Incorporation won in Climate Smart Agriculture for empowering farmers with AI-driven tools. Joler Chobi, Matir Chobi received recognition in Climate Education & Policy Advocacy for raising awareness through film screenings, discussions, and workshops, engaging climate-affected communities. Finally, BRAC Microfinance earned the Climate Adaptation & Resilience award for pioneering microinsurance, climate-resilient farming, and reforestation to mitigate climate-induced losses.



PALKI MOTORS Driving green, driving smart

PRIYAM PAUL

Palki Motors, Bangladesh's first domestic electric vehicle manufacturer, is revolutionising the automotive industry with affordable, eco-friendly solutions designed to transform urban transportation and meet local needs.

Officially launched in October 2022, it offers ride-sharing services with air-conditioned four-wheelers, similar to Uber and Pathao, focusing on urban areas and routes connecting district headquarters to thanas. So far, the company has delivered 24 cars to



drivers, who collectively cover around 4,500 km per month. In total, Palki Motors' vehicles have traveled 1.9 million km, reducing carbon emissions by 300 metric tons.

Palki Motors received the prestigious 2025 Zayed Sustainability Prize along with a \$1 million award. Their cars are certified by both BUET and DUET. In its previous Version 2 model, drivers earned around 2,200 taka per day while covering 4,500 km. With the newly developed Version 3, the company aims to increase drivers' income to 4,000 taka per day. In November, Palki also introduced an electric pickup truck.

Palki's electric vehicles are a cost-effective alternative to fuel-powered cars, which cost 12 taka per kilometre, whereas Palki's run at just 0.58 paise per kilometre. Additionally, each vehicle cuts carbon emissions by 10 tons annually.

Power plants convert 35-60% of fuel into usable electricity, but some energy (5-10%) is lost during transmission and charging. In comparison, gasoline cars are much less efficient, using only 20-40% of fuel for movement while wasting up to 80% as heat and friction. Even if Palki's electric vehicles are charged with fossil fuel-based electricity, they still produce 60-70% fewer carbon emissions than gasoline cars. Their environmental benefits increase even further when powered by renewable energy.

We want the talented youth of our country to contribute to the high-tech industry locally. Our goal is to make domestically produced vehicles accessible to car owners while ensuring fair, competitive wages for our team. Additionally, drivers using Palki Motors earn 10-12% more compared to traditional alternatives while enjoying air-conditioned rides. Our primary aim is to provide a sustainable alternative to CNG vehicles. Moreover, our investors are seeing profitable returns, and most importantly, our products help reduce environmental pollution.

MUSTAFA AL MOMIN, Co-founder & CEO of Palki Motors

We strive to inspire more actors to join the FIGHT AGAINST CLIMATE CHANGE

The Daily Star (TDS): What inspired EBL to launch the Climate Change Action Awards 2025, and what impact do you hope it will have?

Ali Reza Iftekhar (ARI): The EBL Climate Change Action Awards 2025, initiated by Eastern Bank (EBL) in collaboration with the German, French, and Danish embassies, aims to recognise and celebrate exceptional contributions toward addressing climate change. This award acknowledges the efforts of individuals, businesses, and organisations that have demonstrated innovation, resilience, and leadership in tackling climate challenges. The award categories include Green Manufacturing, Energy Efficiency, Climate Smart Agriculture, Climate Adaptation and Resilience, and Climate Education and Policy Advocacy.

As a lender, we believe that by honouring and financing sustainable initiatives, we can inspire and motivate more actors to join the fight against climate change in Bangladesh. We are committed to financing more and more green and sustainable projects to drive impactful change.

TDS: How do you see this award shaping Bangladesh's sustainability landscape?

ARI: The EBL Climate Change Action Awards 2025 is expected to significantly contribute to the broader climate change initiative by promoting sustainable practices and recognising exemplary efforts across various sectors. The award aims to achieve several goals, including fostering innovation in green manufacturing, encouraging energy-efficient practices, supporting climate-smart agriculture, strengthening climate adaptation and

resilience, and advancing climate education and policy advocacy.

By highlighting and celebrating these achievements, we hope to inspire others to embrace sustainable practices, drive positive environmental impact, and enhance community resilience against climate challenges. Ultimately, the award aims to create a greener, more resilient Bangladesh by fostering a culture of sustainability



ALI REZA IFTEKHAR,
MANAGING DIRECTOR AND CEO, EASTERN BANK

across industries and communities.

TDS: Beyond this award, what steps is EBL taking to drive real change in climate action?

ARI: As a leader in sustainable finance, EBL remains steadfast in its commitment to mitigating the impacts of climate change through strategic initiatives aligned with global best practices. The bank integrates environmental and social risk management within its operations while advancing green finance, carbon accounting, and emission reduction programmes.

Since 2023, EBL has been measuring Scope 3 emissions from its financed portfolio and is now broadening its assessment to include Scope 1 and Scope 2 emissions from internal operations and supply chain activities. To further mitigate direct emissions, EBL has partnered with DHL's Go Green Plus initiative, utilising sustainable aviation fuel (SAF) for document transportation, achieving a 30% reduction in carbon emissions. Additionally, the bank is

developing a decarbonisation roadmap to align with and exceed Bangladesh's national climate targets.

In collaboration with expert consultants, EBL is integrating a Climate Risk Assessment Module to assess both physical and transitional climate risks, ensuring that its risk management framework aligns with global sustainability standards. This initiative will also ensure compliance with IFRS S1 sustainability and IFRS S2 climate-related financial disclosure requirements.

Furthermore, EBL is introducing Green Deposit and Asset Products to channel funds into environmentally responsible projects. These products will reinforce the bank's leadership in green finance, positioning EBL as a pioneer in sustainable banking. By embedding sustainability across its operational framework, financing strategies, and long-term objectives, EBL continues to enhance its climate mitigation efforts and drive meaningful impact in Bangladesh's journey toward a low-carbon future.

HBRC Building resilient homes for Bangladesh

SAUDIA AFRIN

As climate change accelerates, Bangladesh faces worsening threats from cyclones, floods, and rising sea levels, displacing millions and straining existing infrastructure. At the same time, traditional clay brick manufacturing continues to degrade the environment, contributing to deforestation, air pollution, and greenhouse gas (GHG) emissions. In response, the Centre for Housing and Building Research (HBRC) is leading efforts to develop sustainable, climate-resilient housing. By promoting eco-friendly materials—such as ferrocement and energy-efficient blocks—it aims to provide durable, low-cost homes while reducing environmental damage.

HBRC's key projects, including the Northeastern Flood Recovery Project (UNDP-HBRC), portable housing for Rohingya refugee camps in Cox's Bazar, and energy-efficient rural model houses, address climate-induced displacement, housing shortages, and inadequate living conditions. These initiatives focus on sustainability, affordability, and resilience, ensuring long-term benefits for vulnerable communities.

To enhance impact, HBRC collaborates with government agencies, NGOs, and local communities. Its capacity-building programmes train local artisans, fostering economic growth and ensuring high-quality construction. Post-construction assessments evaluate shelter performance and integrate community feedback for ongoing improvements. HBRC's innovations have reduced construction time by two to five times compared to traditional methods, making rapid housing deployment possible in disaster-stricken areas.

HBRC's housing models rely on locally sourced sand instead of imported stone, minimising environmental impact while improving river navigation. These homes



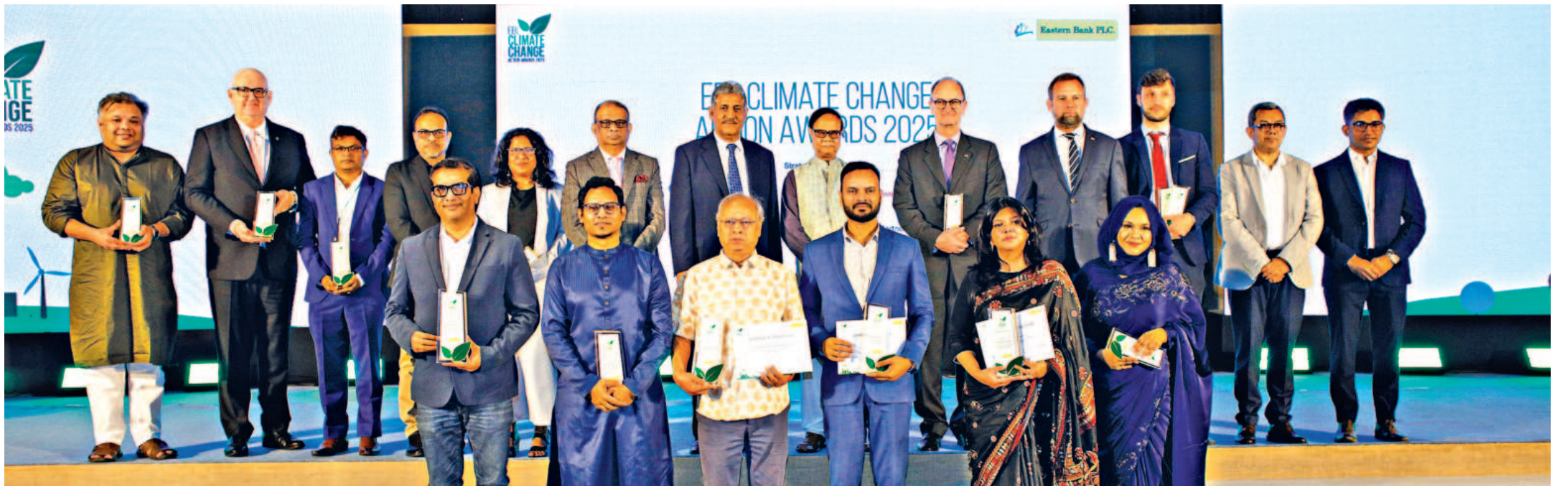
reduce GHG emissions, maintain indoor temperatures 3-8°C lower than conventional homes, and improve indoor air quality. Additionally, they are cost-effective and last three to four times longer than traditional structures.

Looking ahead, HBRC plans to expand its climate-resilient housing to other disaster-prone areas, integrate renewable energy and rainwater harvesting, and collaborate with policymakers to incorporate ferrocement housing into national disaster management strategies while scaling up training programmes for a skilled construction workforce.

Bangladesh faces severe environmental challenges from agricultural land loss, deforestation, and greenhouse gas emissions, endangering food security and sustainability. The HBRC tackles these issues by developing eco-friendly, durable, and energy-efficient housing technologies. Its innovations, implemented in over ten projects, have earned five awards, including three international ones. Traditional clay-burned bricks worsen deforestation, air pollution, and farmland depletion. HBRC promotes Ferrocement and energy-efficient blocks as cost-effective, durable, and sustainable alternatives. Its climate-resilient housing models enhance comfort, air quality, and affordability, fostering a greener future.

MOHAMMAD ABU SADEQUE,
P.Eng. Executive Director, HBRC





Award winners, along with guests and dignitaries, pose for a photograph at the "EBL Climate Change Action Awards 2025," organised by Eastern Bank PLC in partnership with the German, French, and Danish embassies in Bangladesh, held at InterContinental Dhaka on February 27, 2025. Photo: Star



DR. CHASHI Revolutionising agriculture through AI

SARAH BINTAY SHAKHAWAT

Dr. Chashi is Bangladesh's first comprehensive digital agriculture platform, empowering farmers, gardeners, and agro-dealers with AI-driven tools to optimise crop health, boost yields, and promote environmental sustainability. By integrating AI-powered disease detection, weather-indexed advisory systems, and scalable solutions, Dr. Chashi reduces chemical dependency, lowers input costs, and increases productivity by up to 30%. The platform also provides e-commerce access to climate-resilient inputs and ensures food traceability to meet global standards.

Founded in 2020 by Medina Ali, an entrepreneur with deep roots in Bangladesh's agro-industry, Dr. Chashi was inspired by her family's 45+ years of experience in the sector. Identifying critical gaps in real-time crop health diagnostics and effective product usage, Medina launched the platform at a time when farmers were struggling with unpredictable weather, rising input costs,



and environmental degradation.

Dr. Chashi aims to transform farming practices by providing data-driven solutions that align with national and global climate goals, including Bangladesh's climate

change strategies and the UN Sustainable Development Goals (SDGs). With a vision to lead the global Agro Tech industry, the platform promotes sustainable agriculture, mitigates environmental impacts, and enhances food security. Today, Dr. Chashi has over 15,000 organic users and partnerships with organisations such as USAID, the Bangladesh Institute of Nuclear Agriculture (BINA), and Genetica Industries Ltd. The platform has helped reduce crop losses by over 20%, improved soil fertility, and increased farmers' profitability through precise dosage recommendations and early disease detection.

Looking ahead, Dr. Chashi plans to expand into coastal regions to address salinity issues and promote climate-resilient aquaculture. The platform also aims to integrate IoT devices for enhanced monitoring and real-time data collection, introduce microfinance solutions to support smallholder farmers, and develop weather-indexed crop insurance to mitigate financial risks caused by climate change.

In Bangladesh, bumper harvests often lead to oversupply, low prices, and wasted crops due to limited storage and processing facilities. A major challenge is the lack of agricultural data, making it difficult to predict market demand and optimise production. Dr. Chashi bridges this gap by collecting real-time farmland and crop data, helping farmers make informed decisions. With AI-driven fertiliser recommendations, disease detection, and early warning systems, farmers can optimise yields, reduce losses, and increase profitability while preserving their expertise.

MEDINA ALI, Founder and CEO, Dr Chashi Incorporation

JOLER CHOBI MATIR CHOBI Curating a transformative festival

MUJIB RAHMAN

A festival is more than just a cultural event—it is a powerful agent of change. Joler Chobi Matir Chobi, a pioneering travelling film festival, redefines the role of cinema by seamlessly integrating disaster management with community-driven development. Through compelling storytelling, it fosters awareness, resilience, and action in regions most vulnerable to climate change.

Targeting wetlands, coastal belts, and the Chittagong Hill Tracts—areas facing extreme environmental threats—the festival sparks critical conversations, amplifies local voices, and mobilises collective action. By blending cinema with scientific discourse and grassroots participation, it translates complex climate challenges into relatable narratives, encouraging deeper community engagement.

Like all effective development initiatives, this festival maximises impact by incorporating local knowledge and addressing the everyday struggles of vulnerable communities. Rooted in both global and local climate adaptation and disaster management frameworks, it aligns itself with regional challenges, exploring feasible solutions while emphasising cost-effectiveness.

Beyond being a model for climate

education, the festival fosters meaningful collaboration and grassroots driven approaches. Its replicable nature ensures that it can be adapted across diverse settings, nurturing trusted local leadership, strengthening institutional capacity, and enhancing disaster preparedness.

With support from the U.S. Department of State and local film networks, this festival is rapidly growing, extending its reach into



new regions and amplifying its impact. Far from being an external intervention, it operates as a dynamic, participatory platform that brings together filmmakers, climate scientists, activists, and media partners. By engaging communities that are often hesitant to participate in development initiatives, the festival fosters a sense of ownership, facilitating long-term change and resilience-building in climate-affected regions.

I prioritise introspection over prescription when portraying affected communities. While filming in a remote coastal district, we found residents eager to participate. When we later screened the film, they deeply connected with its depiction. It's encouraging to see Hollywood embracing climate narratives, as exemplified by Don't Look Up. COP 30 in Brazil is set to highlight culture's role in climate action. Recently appointed to the UN Climate Change Secretariat's Film/TV Steering Committee, I aim to shape global disaster management policies.

REZWAN SHAHRIAR
SUMIT, Producer at MyPixelStory

BRAC MICROFINANCE Securing a climate-smart Bangladesh



AYMAN ANIKA

Bangladesh faces severe climate challenges, with rising temperatures, unpredictable rainfall, and frequent natural disasters threatening livelihoods. BRAC Microfinance has introduced innovative solutions that integrate financial security with climate-smart strategies to support vulnerable communities. To safeguard livelihoods, BRAC Microfinance introduced climate-focused microinsurance products like Area Yield Index Insurance (AYII) and Weather Index Insurance (WII), protecting farmers from droughts, floods, and erratic weather. The Livestock Grow initiative extends similar security to livestock farmers, covering risks from diseases and natural disasters. Currently piloted in 200 branches, it is set for national expansion.

BRAC Microfinance is also promoting climate-resilient seeds, solar-powered irrigation, and precision farming to mitigate climate risks and enhance food security. Partnering with Haor farmers and Sundarbans fishermen, it has introduced modern harvesting tools and storage facilities, reducing post-harvest losses. Solar-powered irrigation pumps have decreased

reliance on fossil fuels, making farming more sustainable.

Through initiatives like Green Inception and Green Expansion, BRAC Microfinance has planted over a million trees in climate-vulnerable regions. This afforestation drive conserves biodiversity and aligns with Bangladesh's National Biodiversity Strategy and Nationally Determined Contributions (NDCs), combating deforestation and land degradation.

BRAC Microfinance's initiatives have insured 400,000 farmers, with BDT 4.8 crore in payouts, leading to a 20-30 percent increase in crop yields and a 40 percent reduction in harvest losses. Solar-powered irrigation has lowered farmers' energy costs by 60 percent, while thousands of palm trees now shield coastal areas from erosion.

Looking ahead, BRAC Microfinance aims to develop 100,000 climate-smart livestock entrepreneurs annually, enrol 1 million farmers in climate insurance, introduce Aqua Insurance for fish farmers, expand smart farming solutions using data-driven technologies, and establish community-led storage units to reduce food waste and stabilise markets.

Bangladesh ranks as the seventh most vulnerable country to climate change, with its agriculture, biodiversity, and livelihoods increasingly disrupted. Frequent natural disasters pose severe threats, while climate-induced migration has become a survival strategy as people lose climate-sensitive jobs due to low adaptive capacity. Our initiatives focus on climate-adaptive technology, biodiversity conservation, and resilience-building measures, including microinsurance, mechanisation, post-harvest storage, adaptive seeds, and tailored financing. Over three years, we've insured nearly 500,000 farmers, aiming to reach one million this year.

ARINJOY DHAR, Senior Director of BRAC Microfinance



The Daily Star

FOUNDER EDITOR: LATE S. M. ALI

A new party with new hope

NCP's emergence can bring positive change in our political culture

We welcome the launch of the National Citizen Party (NCP), led by individuals from the July uprising that toppled the regime of the Awami League in August 2024. The party has been formed at a time when the people of the country are eagerly looking forward to new political leadership, expecting positive change in our political culture. As the leaders of the newly formed party shared their vision for a new Bangladesh, the public's response was overwhelmingly supportive. Students, activists, young professionals, and ordinary citizens from across the country participated in the inauguration ceremony to show their backing.

Nahid Islam, the convener of the NCP, vowed to reshape Bangladesh's political landscape. He declared that the common people will be the supreme source of power in Bangladesh and that their mission is to dismantle constitutional autocracy and establish a robust democratic framework. Nahid also emphasised that the NCP is committed to rebuilding the country's political and economic institutions, combating corruption and nepotism, and prioritising inclusion, equity, and national sovereignty. While these promises are encouraging, the true challenge for the new party will be in staying true to its word.

Over the past few decades, we have witnessed the failure of major political parties to uphold the democratic spirit of the nation. During the 15 years of AL rule, all major institutions were politicised, rendering them inefficient and incapable of performing their duties. The party's failure to ensure democratic practices within itself, coupled with widespread corruption and a lack of transparency and accountability, severely damaged our political culture. As a result, the people of Bangladesh are eager for change. Therefore, if the NCP genuinely seeks to become a people's party, it must first practice democracy within the party itself. It needs to foster an environment where disagreement and debate are welcomed, and everyone's voice is heard. It is encouraging to see that the party has included people with diverse views and beliefs, with three of the top 10 positions in the committee held by women.

Transparency and accountability will be key factors in determining the future of this party. A lack of transparency has long distanced people from mainstream political parties. The NCP must, therefore, ensure transparency in all its activities, especially regarding its finances. Understandably, launching and running a new political party requires substantial funding, and the NCP must make its sources of funding public—both now and in the future—to ensure transparency. As Nahid has affirmed that the NCP will be a truly democratic, egalitarian, and people-centred political force, it must remain accountable to the people.

We hope that the NCP will set a positive example for other political parties to follow. It has emerged directly from the heart of a mass uprising—led by the very youth who spearheaded it. We wish them success in building the inclusive society they have pledged to create.

Can Russia-Ukraine war finally end?

Vital questions remain unanswered after Trump-Zelensky talks

Following Ukrainian President Zelensky's meeting with US President Trump, we are hopeful that the war between Russia and Ukraine can be brought to an end. The whole world desires peace and undoubtedly this has been one of the most destructive wars in recent history. The death toll has been staggering, and the global fallout—including supply chain disruptions, inflation, and food shortages in parts of the world—has been severe. Moreover, as Trump noted, this war has been so dangerous that the risk of it spiralling into a World War III-like scenario has persisted all along. Therefore, the sooner it can be brought to an end and tensions de-escalated, the better it will be for Ukraine, Russia, and the world as a whole.

While President Trump stressed the importance of reaching a peace deal, the terms under which peace will be achieved remain unclear. Will it come at the cost of territorial concessions by Ukraine? If so, what message would that send if a powerful country can invade another and gain territory in exchange for peace? Would this not set a dangerous precedent—one that makes the world more insecure, unstable, and vulnerable to future acts of aggression?

For peace to be lasting, it must also be just. Therefore, international law should be the sole guiding principle in any peace agreement. No agreement should be imposed by external powers, including the US. It must be remembered that Ukraine is the victim in this war, and its interests should not be sidelined in negotiations.

While discussions of peace have begun—an encouraging first step—it is disappointing that the meeting between the Ukrainian and US presidents did not yield more concrete progress. During their press briefing in the Oval Office, it became evident that tensions persist among all parties involved. Nevertheless, continued dialogue is crucial, as diplomacy remains the only path to peace.

Ending the war between Russia and Ukraine while safeguarding Ukraine's territorial integrity and sovereignty must be a top priority for the global community. The US and Europe, in particular, have a pivotal role to play in achieving a just and lasting peace. To that end, we urge all parties involved to commit to sincere and constructive diplomacy.

THIS DAY IN HISTORY

Morocco declares independence



On this day in 1956, the North African country of Morocco, situated directly across the Strait of Gibraltar from Spain, proclaimed independence from France. Sultan Muhammad V formed its first government.

Who are the true masterminds behind the current chaos?



H. M. Nazmul Alam is an academic, journalist, and political analyst. He can be reached at nazmulalam.rijohn@gmail.com.

H. M. NAZMUL ALAM

In the dead of night, the whispers of horror spread like wildfire. A man shot and robbed of his gold, a teenage gang hacking a passerby to death in broad daylight, an entire moving bus held hostage by looters—these are not excerpts from a dystopian thriller. No, this is the daily news, the grim reality of our nation now. And what's worse? The masterminds behind this lawlessness might not even be within our borders.

The special operation codenamed Operation Devil Hunt—a name fit for a gothic horror novel—has thus far been little more than a sensationalised parade of mass arrests. In just 16 days, between February 8 and 24, a total of 9,253 individuals have been detained, yet the crime wave shows no signs of abating. If anything, it seems emboldened, as if mocking the very hands that seek to suppress it. Analysts argue that Devil Hunt is more about optics than effectiveness, a politically motivated spectacle to distract from deeper structural failures.

But what if the problem isn't just local incompetence? What if the real puppeteers are sitting comfortably in foreign lands, sipping cocktails purchased with money siphoned from our economy, now investing it in terror and crime to ensure Bangladesh crumbles under its own weight?

Once upon a time—before they were ousted—the Awami political elites were busy playing an elaborate game of Monopoly with the country's treasury. Billions of dollars were laundered to Dubai, Canada, Malaysia, and Switzerland, each penny meticulously extracted from our banks, our development projects, and our hard-earned remittances. Their love for luxury condos and offshore accounts was only matched by their disdain for accountability.

If anyone wonders why crime hasn't stopped despite thousands being thrown behind bars, the answer is simple—because the real criminals may not even be here. Many are in exile, directing traffic on the highway to hell.

Political analysts and criminologists are puzzled. How does a country with active security forces and a special anti-crime operation still manage to descend into such chaos? The answer lies in economic incentives.

The funding required to maintain an organised crime syndicate does not fall from the sky. Someone is paying for the guns, someone is organising the logistics, and someone is ensuring that criminals get the needed support after their inevitable arrests.

And where does this mysterious funding come from?

Consider this: the very criminals now looting the streets are often allegedly found to have surprising connections to the exiled political elites. As police scramble to arrest low-level foot soldiers, the masterminds remain untouchable, their influence extending from plush overseas

public is pushed to the brink, they will be willing to demand "any" solution, even from the same looters who once drained the country's coffers dry.

The terrifying rise of mob justice is perhaps the most striking indicator that people no longer trust the system. In some areas, pickpockets were beaten to a pulp. Elsewhere, suspected criminals were lynched before the police could even arrive. The irony is suffocating—while the public takes justice into its own hands, many of the real villains enjoy state-of-the-art security abroad.

The situation has become so absurd that even the police seem confused about their priorities. While they launch large-scale operations against petty criminals, gold smugglers, corrupt bureaucrats, and financial fraudsters walk free. Meanwhile, the home affairs adviser promises "even stronger" crackdowns. One has to wonder how much more "crackdown" does it take to actually produce results?

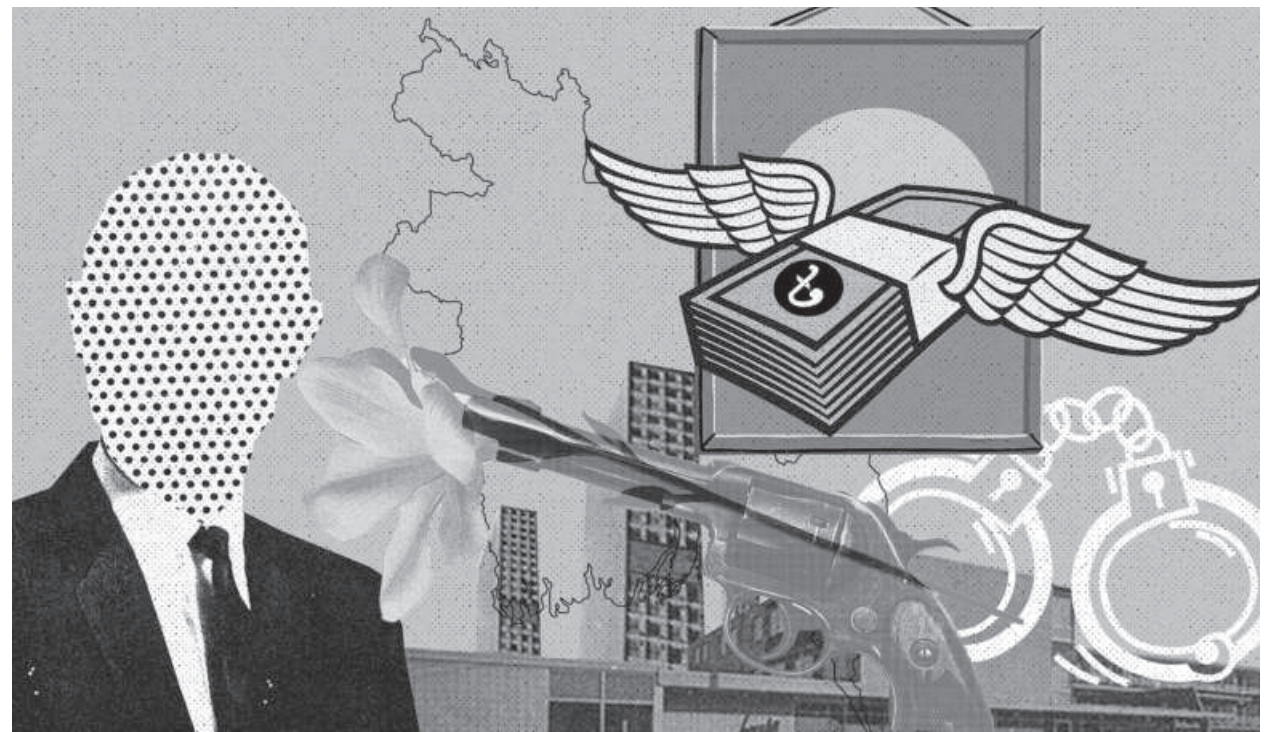
Perhaps the most poetic part of

ramifications extend far beyond our borders. The rise of unchecked crime in Bangladesh doesn't just affect the local population; it threatens regional security and economic stability. Foreign investors, already wary of corruption, will hesitate even more. Tourism will dwindle. And the global financial watchdogs, seeing the unchecked movement of illicit funds, could consider harsher restrictions on Bangladesh's financial transactions.

This is an attempt to strategically dismantle a nation, one crime at a time.

Despite the bleakness, there is one undeniable truth—fear is contagious, but so is courage. People are fighting back, not just against robbers, but against the very culture of impunity that enabled them. Protests demanding accountability are gaining traction. Students at Dhaka University, fed up with empty promises, are taking to the streets. Even local businessmen, traditionally silent, are beginning to resist.

The question remains: will this



VISUAL: ANWAR SOHEL

retreats to the grimy back alleys of Dhaka. They are the ones bankrolling terror, ensuring that the public remains distracted, disillusioned, and desperate.

For the exiled elites, this is a win-win strategy. A destabilised Bangladesh serves multiple purposes—it undermines the legitimacy of the current administration, creates an atmosphere of fear and frustration, and most importantly, sets the stage for their possible grand return. After all, they may think that when the

this tragedy is that the very people suffering today were, not too long ago, permitted the very system that enabled this crisis. They tolerated financial corruption, thinking it wouldn't affect them. They ignored blatant money laundering, assuming it was just "politicians being politicians." But now, as criminals rule the night and day, they realise—too late—that stolen money has consequences beyond just emptying bank accounts.

It's easy to view this crisis as a purely domestic issue, but the

resistance be enough? Can Bangladesh reclaim its streets before the next wave of violence? More importantly, will we learn from this crisis and finally hold those in power accountable—not just the petty criminals, but the grand architects of this nightmare?

Or will we, yet again, watch the looters walk free—only to return in a different disguise, ready to rob us blind once more?

The next few months will decide whether we remain a nation of victims or finally rise as a nation of justice.

At the crossroads of faith, identity, and change



Mohammed Efaz is pursuing a bachelor's degree in computer science at Eötvös Loránd University in Hungary.

MOHAMMED EFAZ

Religion has long been the bedrock of Bangladesh, binding belief and belonging into the fabric of its identity. Mosques, temples, and churches stand as pillars of piety, steadfast through generations, their very presence a testament to a spiritual identity that has endured the trials of war, the grip of colonisation, and the relentless march of globalisation, standing unshaken in the sands of time. Yet, in hushed conversations among many in certain sections of the society, a quiet detachment is taking root.

A study, submitted to an international symposium in 2021, on generational and religious norms among Bangladeshi youth found that 68.5 percent of young Bangladeshis now identify more with their national or global identity than with their religion. Some young people participate in religious rituals not out of conviction but to maintain social harmony. A study regarding religious performance during the pandemic highlights that many irreligious

students feel compelled to uphold an outwardly religious image despite privately distancing themselves from faith. The study was published on a student-run digital platform.

This shift in perspective is not occurring in a vacuum. It is part of a broader zeitgeist, shaped by the currents of Western liberalism, the rise of individualism, and a culture that champions autonomy over communal identity. Another study from 2021 on education leadership in Bangladesh notes that globalisation, social media, and Western academic structures have reinforced an increasingly corporatised approach to education, one that sidesteps spirituality in favour of material progress.

Individualism, when left unchecked, fosters a culture of detachment, eroding the sense of duty to faith, family, and community. It elevates the self above all else, severing the bonds of responsibility that sustain a cohesive society. The push for autonomy without moral

grounding has not led to freedom but to fragmentation, turning self-interest into an ideology that rejects shared purpose. It replaces timeless moral principles with transient ideologies dictated by global trends, creating a feedback loop that feeds its own excesses. Bangladesh, once physically colonised, now navigates a more subtle force: "neo-colonisation," where external influences shape societal values and perceptions under the banner of progress—often unchallenged, often unquestioned.

What is striking, however, is not just the slow detachment from religious practice, but the reason for it. It is not entirely an intellectual rebellion, nor a conscious rejection of faith. It is, in many cases, the result of blind belief itself. Faith, when inherited but not explained, when memorised but not internalised, becomes fragile. When young people are handed religion as an obligation rather than an invitation to explore, it is only natural that exposure to critical inquiry, philosophy, and global discourse leads to detachment rather than deepened conviction.

The real question is not whether Bangladesh is witnessing a generational shift in religious identity. It is. The real question is whether this shift will create a divide that runs deeper than personal belief, whether it will lead to ideological rifts too stark to reconcile. Nations throughout history

have encountered this fracture: one section of society remaining deeply committed to its religious roots, while another moves towards liberal and self-defined values. When the gap between the two is not managed, it leads not just to disagreement but to polarisation, where faith becomes a battleground rather than a guiding force.

Bangladesh stands at a crossroads where the divide between ideologies and religious beliefs is shaping national identity, governance, and social cohesion. One side sees tradition under siege, eroding the moral fabric that has long held society together; the other views long-standing beliefs as barriers to progress, relics of a past best left behind. Yet, both risk the same trap—clinging to convictions without scrutiny. Religious belief should be rooted in reason, not blind acceptance, just as modern ideologies must not be embraced uncritically, mistaking change for progress without evaluation. As this divide deepens, the fractures extend beyond belief, shaping the nation's cultural and ideological trajectory. The real question is not just about faith but about the principles we uphold, whether we seek truth through reflection or follow prevailing narratives unexamined. In the end, conviction is not inherited but cultivated, and the willingness to question must extend not only outward but inward.



VISUAL: KAZI TAH SIN AGAZ APURBO

The harsh reality of domestic abuse in our society



Naziba Basher
is a journalist at The Daily Star.

NAZIBA BASHER

The Bangladesh Bureau of Statistics 2024 survey on violence against women presents a sobering reality of the extent of abuse faced by women across the country.

The survey reveals that a significant proportion of Bangladeshi women have been subjected to intimate partner violence (IPV), with 54 percent of women reporting physical and/or sexual abuse by their husbands at some point in their lives. IPV remains a dominant form of abuse (76 percent), with the survey showing that 70 percent of women have encountered some form of violence during their lifetimes.

In the past year alone, 41 percent of women reported being victims of abuse by their intimate partner, a significant figure when compared to the 73 percent lifetime prevalence reported in the 2015 survey. The data also highlights that over 76 percent of women across the country experience IPV during their lifetime.

This represents a distressingly high incidence of domestic abuse, with the figures reflecting both the persistence and the normalisation of such violence in many households.

Among the divisions, Barishal and Khulna report the highest IPV rates at 81.5 percent, while Sylhet has the lowest at 72.1 percent. The capital shows an IPV rate of 72.9 percent, with other regions such as Chattogram and Mymensingh also reporting alarming figures.

In fact, the percentage is above 70 in every division.

Such prevalence of IPV despite regional variation suggests that IPV is not limited to any specific area but is a widespread issue that affects women regardless of their location.

Controlling behaviours and emotional abuse were identified as the most common forms of IPV, pointing to the significant psychological toll that this violence takes on women. The fact that many women suffer in silence—64 percent of victims never sharing their experiences with anyone—further underlines the deeply ingrained social stigmas surrounding domestic abuse. Many

women fear that speaking out will damage their family's reputation, put their children's wellbeing at risk, or that violence is simply seen as "a part of married life".

The findings of this survey are a wake-up call for the government and society as a whole. While much progress has been made in raising awareness about gender-based violence, there is still much more to be done.

Media reports over the past year have highlighted the devastating impact of IPV on women in Bangladesh. One recent incident involved a woman in Chattogram who was severely beaten by her husband, leading to her hospitalisation. Another case from Dhaka saw a woman attacked by her spouse after a domestic dispute over dowry. These incidents highlight the urgency of addressing the root causes of IPV, which are often deeply rooted in patriarchal attitudes and a culture of impunity for perpetrators.

When domestic violence leads to marital rape

Marital rape—a concept that South Asian populations often struggle to grasp due to deeply entrenched patriarchal norms—is another horrifying extension of domestic violence. In many communities, the notion that a husband can rape his wife is incomprehensible because it challenges the assumption that men have an inherent entitlement to sexual access within marriage. Society often questions, "He is her husband, how can it be rape?"—failing to understand the fundamental principle of "consent."

Domestic violence poses significant physical, emotional, and psychological dangers to victims, often creating an environment of fear and helplessness. In many cases, the abusive behaviours escalate over time, leading to a cycle of control and manipulation that leaves the victim feeling trapped and powerless. The constant threat of violence can have long-lasting effects, including trauma, depression, and anxiety. In extreme cases, domestic violence

can extend to marital rape, where an abuser forces sexual intercourse upon their partner without consent. Because it occurs within the supposed "safety of a relationship," victims may feel even more isolated and reluctant to speak out.

What about the child brides?

Additionally, child marriage remains a significant and disturbing issue in Bangladesh, despite efforts to reduce its prevalence. According to various reports, around 29 percent of girls in Bangladesh are married before the age of 18, which is among the highest rates in the world. In some rural areas, the numbers can be even higher and the age can be as young as 10.

This cultural practice is often driven by socio-economic factors, traditional norms, and sometimes the desire to protect young girls from potential harm or to relieve financial burdens. However, child marriage exposes girls to a range of dangers, particularly in the form of domestic violence and marital rape, which, in this case, is child rape.

According to child psychologists, child brides, due to their age, may lack the emotional maturity and resources to navigate marital relationships and may not have the knowledge or power to resist abuse. This power imbalance in such marriages, with older husbands often exerting control over their much younger wives, further increases the risk of domestic violence.

Furthermore, child brides are less likely to even understand their rights and seek help, as they are often isolated from family and friends and have limited access to support systems. Early marriage almost always leads to early childbearing, which carries its own health risks and adds to the emotional and physical strain on young girls. This then makes them even more vulnerable to continued abuse.

In light of the survey findings, the way forward must include stronger legal protections for women and especially female children, increased support for victims, and a more proactive approach to prevention.

The 2024 BBS survey is not just a snapshot of the current situation; it is a call to action for the government, civil society, and international partners to work together to create a safer, more equitable society for women in Bangladesh.

It is time for us to finally accept that sex education is imperative for our society to not just thrive but to survive.

What's so special about Bangladesh?



Dan Mozena
is former US ambassador to Bangladesh.

DAN MOZENA

It is no secret that Bangladesh, long ago, captured and continues to hold my heart. As I commented on that sad day a decade ago when I departed Dhaka at the end of my ambassadorship, "I am leaving Bangladesh, but my heart is staying behind," so it remains.

Those who know my enduring affection for Bangladesh sometimes ask, "What is so special about Bangladesh?" This question has a simple answer: the people—the wonderful people of Bangladesh—are the reason that the country is so special for me. During my tenure as US ambassador to Bangladesh, I visited all 64 districts, and everywhere I travelled I saw Bangladesh men and women—farmers, village women, teachers, medical workers, street vendors, shopkeepers, businesspeople,

toppling the previous regime is not an end, but only a step to the larger goal of building the new Bangladesh. History shows that revolutionaries, upon achieving their immediate goal of toppling the existing power structure, often then turn upon each other in a battle for power, until one leader emerges on top and other would-be leaders are vanquished or worse. The students, to their great credit, have learned from Bangladesh's history and have chosen a different path. Instead of wrestling among themselves for power, they joined together and reached out to Bangladesh's most distinguished luminary, Professor Muhammad Yunus, to provide leadership to their enterprise.

Professor Yunus is an inspired choice. He has no personal political agenda; he does not seek power for

done right in launching Bangladesh on a democratic trajectory, where it has made mistakes, and where it must do better. Standing together, the people and the transitional government can get it right in laying the foundation for the new Bangladesh.

Most critical now is for the interim government to sustain citizens' hope that this time, Bangladesh will triumph in building democracy. This is a tough challenge as the interim government must deliver on many fronts, including i) ensuring safety and security for all citizens; ii) providing quality education, health care and other basics of life; iii) undertaking an effective campaign against corruption; iv) fostering an economy that provides jobs and improves standards of living; v) holding accountable members of the previous government who committed the most egregious acts against the people; vi) rehabilitating people connected to the previous government implicated in lesser acts against the people perhaps by establishing a truth and reconciliation process, along the lines of the South African model. Such a process could enable these individuals to publicly acknowledge



The student-led July-August uprising aspired for a new Bangladesh, where citizens could participate freely and safely in building better futures for themselves.

FILE PHOTO: AMRAN HOSSAIN

ready-made garment workers—all working hard and creatively to build a peaceful, secure, prosperous, healthy and, aspirationally, democratic Bangladesh, a far cry from the "international basket case" that a US diplomat envisioned in 1971 for the then newly-independent nation.

Last July and August, the magic and wonder of the Bangladeshi people were on full display as the nation threw off the cloak of authoritarianism and oppression that had suffocated the people. This revolution was led by students who seek a new Bangladesh that enables citizens to participate freely and safely in building better futures for themselves, their families and their communities. Is this too much to expect? I don't think so, and neither do the students, so they persist in their pursuit of the new Bangladesh. Sadly, some made the ultimate sacrifice to this end during the July-August uprising.

This is not the first time in Bangladesh's history that the people declared "enough" and threw off oppression. Those earlier endeavours to emancipate the people did not end well, as forces of oppression re-emerged and again subjected the people to tyranny.

I believe this time it could be different. The students realise that

himself; and he has nothing more to prove—he is already a Nobel laureate. I believe he seeks simply to help his beloved Bangladesh find its way through these challenging times. The revolution is an historic opportunity to realise the long-elusive dream of a free, democratic Bangladesh, a dream that has tragically been crushed repeatedly in Bangladesh's short but turbulent history. The path ahead is treacherous. As Bangladesh struggles to recraft itself, some want Bangladesh to fail in its pursuit of democracy; extremists and others see opportunities for advancing their own agendas. Others, filled with rage and anger, lash out to exact retribution from those perceived as implementing or benefiting from the atrocities perpetrated by the previous government.

These negative forces are destabilising. They deepen hate and divide people at a time when Bangladeshis must stand united to create a durable democracy that brings peace and prosperity to all citizens. To that end, there is only one game in town: the interim government under the leadership of Professor Yunus. I hope all Bangladeshis will stand behind this transitional government by helping the government see what it has

their past transgressions, ask for forgiveness from victims, and commit themselves to Bangladesh's emerging democracy. Finally, the electoral process can be reformed so Bangladeshis can effectively voice their political views, either by creating new political parties or by the erstwhile opposition parties recreating themselves by implementing internal democratic processes that enable party members to freely choose their party's leaders.

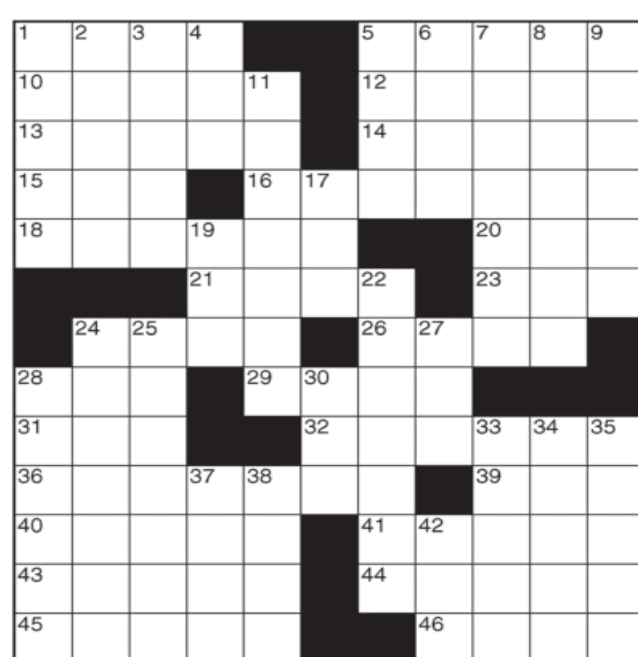
I appreciate the gravity and severity of these challenges. Nonetheless, I am confident the people of Bangladesh, in partnership with the interim government, will prevail in addressing these challenges, thus setting the stage for electoral reforms that enable citizens to freely participate in the democratic process.

Is this simply wishful thinking on the part of someone who loves Bangladesh? I think not. Bangladeshis know that this is a critical juncture in their nation's history. Bangladeshis have seen their dream of a democratic Bangladesh crushed too many times. Bangladeshis will not accept the return of autocracy; they will accept nothing less than democracy.

- ACROSS**
- 1 Baby's bed
 - 5 Multiplied by
 - 10 Gave an edge
 - 12 Operative
 - 13 Holmes's beloved Irene
 - 14 Terra _____
 - 15 Notice
 - 16 Stifle
 - 18 May honoree
 - 20 "Roses ___ red"
 - 21 Banish
 - 23 Composer Rorem
 - 24 Dozes
 - 26 Formerly owned
 - 28 Singer Waits
 - 29 Fill fully

- 31 Bill dispenser
 - 32 Commotion
 - 36 Monastery address
 - 39 Mine matter
 - 40 Roofed patio
 - 41 Moses of the track
 - 43 Decree
 - 44 Out of style
 - 45 Plane features
 - 46 Forest growth
- DOWN**
- 1 Gorge
 - 2 Roping contest
 - 3 Harbor
 - 4 Worker, e.g.
 - 5 Folded food
 - 6 "___ You Babe"

- 7 Flammable gas
- 8 Went in
- 9 Was rude, in a way
- 11 The Lorax's creator
- 17 "___ Miniver"
- 19 Bunny move
- 22 Instructed
- 24 Clause in a sports contract
- 25 Cleaner additive
- 27 Determined
- 28 Restaurant units
- 30 Mock
- 33 Instructional
- 34 Great Lakes tribe
- 35 Tears
- 37 Diplomatic skill
- 38 Successful songs
- 42 River stopper



5-11

YESTERDAY'S ANSWERS



Can AI improve medical decision-making?

Artificial intelligence (AI) is making its way into the world of healthcare, assisting doctors with complex medical decisions. Large language models (LLMs), such as ChatGPT, are already proving useful in diagnosing conditions, but their role in guiding treatment plans, risk assessment, and test selection is still being explored.

Recent research suggests that AI can enhance physicians' ability to manage difficult cases. When doctors used AI alongside traditional medical resources, they made better decisions regarding diagnosis and treatment than those relying solely on conventional tools. Interestingly, AI performed just as well on its own, suggesting its potential as a valuable decision-support tool.



While these findings are promising, they are based on case scenarios rather than real-life patient interactions. The next step is to test AI in live clinical settings. As technology continues to evolve, it could help doctors make faster, more accurate decisions. However, concerns remain about overreliance on AI, as well as the need for clear, well-structured prompts to get the most useful insights.

AI is not here to replace doctors but to support them in delivering better care. With careful integration, it could become a powerful tool in modern medicine, improving patient outcomes while maintaining human oversight in critical decision-making.

Source: Nature Medicine

Revolutionising Medical Education: Singapore's transformative approach

DR TAREQ SALAHUDDIN

In an era where innovation and adaptability define success, Singapore has pioneered a transformative medical education system that merges disciplines and cultivates multi-faceted healthcare professionals. At the heart of this innovation is SingHealth Duke-NUS Academic Medical Centre, which has redefined the conventional path to medical practice, incorporating engineering, business, and artificial intelligence into the medical curriculum. This novel approach was highlighted during my conversation with Prof London Lucien Ooi Peng Jin, Group Director of the International Collaboration Office at Singapore General Hospital, and Dr Rena Dharmawan, a surgeon and innovator trained under this curriculum.

Prof London Lucien Ooi Peng Jin



A medical education model beyond borders: Prof Lucien, a key architect of this transformation, describes Singapore's approach as a blend of the best practices from the British and American systems, with a distinctive Asian pragmatism. Traditionally, medical education follows a linear trajectory: undergraduate science education, medical school, and clinical training. Singapore, however, has introduced a system where students with diverse academic backgrounds—ranging from engineering and business to law and data science—are integrated into medical education.

"We realised that just training doctors to diagnose and treat patients is not enough," Prof Lucien explains. "We need clinicians who can identify problems and design solutions, be it through artificial intelligence, medical devices, or innovative healthcare delivery models."

This interdisciplinary approach is not just theoretical. The programme recruits students with non-traditional medical backgrounds and places them on specialised tracks. For instance, engineers who pursue an MD are groomed to develop medical devices and AI-driven solutions, while those with business acumen learn how to lead healthcare startups and manage hospital systems. The programme's partnerships with institutions such as Duke University, University College London, and MIT further enrich this educational model, exposing students to a global ecosystem of knowledge and research.

From Engineering to Medicine: A personal journey: Dr Rena Dharmawan



embodies the success of this integrated curriculum. Originally trained as a biomedical engineer at the University of Michigan, she transitioned to medicine through Duke-NUS Medical School. "Technology can significantly improve patient outcomes," she notes. "My exposure to both engineering and medicine allowed me to see beyond treatment and focus on innovation."

After completing her MD, Dr Dharmawan pursued a surgical residency while simultaneously launching a startup. Inspired by her passion for medical device innovation, she took a year off to study at Stanford University, where she was part of the renowned Biodesign programme. There, she and her team developed a device for at-home haemorrhoid treatment, which later received FDA approval and was successfully acquired by a larger firm.

Her journey did not stop there. She co-founded two more startups—one that created a healthcare co-working space for medical entrepreneurs and another that connected home care nurses with patients through an Uber-like platform. Eventually, she returned to academia to lead the Duke-NUS Health Innovator Programme (DHIP), which integrates innovation training into medical education. "We need doctors to think like entrepreneurs and problem solvers," she emphasises. "By training them early, we ensure they can navigate the complex world of healthcare innovation."

Bridging medicine and innovation: The DHIP programme encapsulates Singapore's vision for the future of medicine. Each student team consists of a medical student, a biomedical engineer, and a business student. The curriculum focuses on real-world problem solving, from identifying healthcare inefficiencies to developing

viable solutions. The culmination of this nine-month programme is a Shark Tank-style pitch competition, where students present their ideas to potential investors and healthcare leaders.

What sets this initiative apart is its direct collaboration with industry leaders. Companies like Johnson & Johnson Vision mentor student teams, ensuring their innovations are commercially viable. "Many medical schools emphasise research, but few teach commercialisation," Dr Dharmawan explains. "Here, students learn how to turn an idea into a tangible healthcare solution."

A blueprint for the future: Singapore's model is groundbreaking not just for its structure but also for its impact. By integrating multiple disciplines, the programme is creating a new breed of doctors—ones who can think critically, innovate, and adapt to the rapidly evolving medical landscape. Prof Lucien believes that the success of this approach will inspire other countries to adopt similar models. "We are not just following global standards; we are setting them," he asserts.

For professionals and policymakers worldwide, Singapore's approach offers valuable insights. As healthcare becomes increasingly reliant on technology, interdisciplinary medical education is no longer optional—it is essential. By fostering a generation of doctor-engineers, doctor-entrepreneurs, and doctor-data scientists, Singapore is ensuring that its healthcare system remains at the forefront of medical innovation.

In an age where medicine is evolving beyond traditional boundaries, Singapore has provided a model that is both visionary and practical. This integrated approach may well be the future of medical education worldwide.

E-mail: tareq.salahuddin@thedailystar.net

Obesity surgery abroad risks stress safety standards

Medical tourism for obesity surgery has become increasingly common, especially for individuals facing long waiting times in their home countries. However, travelling abroad for these procedures carries significant risks, including infections, complications, and, in severe cases, life-threatening outcomes. Many patients do not receive proper post-surgical care or documentation, making follow-up treatment challenging.

Recognising these risks, leading medical organisations have collaborated to establish clear guidelines for safe obesity surgery abroad. Their recommendations emphasise that only accredited centres should perform recognised procedures,



ensuring high standards of care. Patients should receive comprehensive pre-surgical assessments, be informed of potential risks, and have access to follow-up care for at least two years. Additionally, proper documentation and communication between international surgeons and home-country doctors are essential for ongoing patient safety.

Transparency in advertising and pricing is another key focus. Clinics offering discounted procedures without clear accreditation may compromise quality. Patients should be aware of what standards to expect and demand proper care.

By setting these guidelines, experts hope to improve patient safety and reduce complications from unregulated medical tourism. While obesity surgery can be life-changing, it must be done in facilities that prioritise safety and long-term health.

Source: The Lancet

Warrior within festival empowers hundreds with healing and transformation

STAR HEALTH REPORT

The Warrior Within Festival, an immersive celebration of healing, resilience, and self-discovery, concluded successfully, leaving a lasting impact on hundreds of participants who joined this transformative journey. Organised by Dhaka Flow, the festival was designed as a sanctuary for those seeking to reconnect with their inner strength and embrace holistic well-being through yoga, breathwork, sound healing, and immersive storytelling.

Hosted at Basecamp, Dhaka's premier adventure and wellness retreat space, the festival provided the perfect setting for deep reflection and community bonding. A highlight of the festival was the participation of expert wellness practitioners, artists, and spiritual leaders, who led workshops on emotional resilience, creative expression, and mindful movement.

Through yoga sessions, guided meditations, and interactive art therapy, participants discovered tools to navigate stress, anxiety, and personal challenges with newfound strength.

"We saw people confront their fears, embrace vulnerability, and walk away with a deeper understanding of their own power. The Warrior Within Festival has reinforced the need for more spaces where people can heal collectively and individually." The impact of the festival was reflected in heartfelt testimonials from attendees. Many shared how the event helped them release past traumas, foster self-acceptance, and cultivate a sense of belonging within a like-minded community. One participant noted, "I came here feeling lost, and I am leaving with a sense of purpose and peace. This festival has given me tools to face my struggles with courage." Beyond individual transformation, the Warrior Within Festival also strengthened Dhaka's growing wellness community, bringing together healers, artists, and seekers from diverse backgrounds.

The event served as a platform to introduce sustainable wellness practices and create deeper conversations around mental health and self-care in Bangladesh. Dhaka Flow remains committed to nurturing these conversations and expanding its wellness offerings beyond the festival. Plans are already underway for future retreats, community healing sessions, and ongoing workshops to build on the momentum generated by this event. The overwhelming response to the Warrior Within Festival highlights the urgent need for accessible, holistic healing spaces. As Dhaka Flow continues its mission, the festival stands as a testament to the power of collective healing and the untapped strength within every individual.



The best exercises to manage high blood pressure

Regular exercise is a powerful tool for managing high blood pressure, but it is important to do it right. Experts emphasise that consistency, moderation, and proper technique are key to making workouts safe and effective.

Start small, build gradually: Cedric Bryant, PhD, CEO of the American Council on Exercise, suggests starting with just 10-15 minutes of activity and increasing by 5 minutes every few weeks. "People with lower fitness levels should focus on shorter durations at first and build up as their endurance improves," he says. Ideally, aim for 30-60 minutes of aerobic activity like walking, swimming, or cycling most days of the week.

Strength training: be smart: Strength training can help lower blood pressure, but lifting heavy weights is not recommended. Dr James Beckerman, a cardiologist, advises using lighter weights with higher repetitions and avoiding breath-holding, which can cause sudden spikes in blood pressure. "Exhale during exertion to prevent excessive increases," Bryant adds.

Know your limits: Before starting a new routine, consult your doctor, especially if you take medications like beta blockers, which can affect stamina and heart rate. They can provide personalised guidelines to keep workouts safe.

Stick with it: The most important factor is consistency. "Do not try to conquer the world in one workout," Bryant says. Find activities you enjoy, start slow, and make movement a daily habit. Over time, regular exercise can help keep your blood pressure in check and support long-term heart health.

How nutrition shapes our genes: the promise of nutrigenomics

RAISA MEHZABEEN

Other than making the body function and providing it with all the nutrients, our diet interacts with genes themselves to affect long-term health by altering gene expression. Nutrigenomics is a new area of study that links nutrition and genetics. New insights into disease prevention and individualised nutritional plans are also offered.

Nutrigenomics is a study of nutritional science that explores the interaction of dietary components with genes in regulating health and disease. It investigates molecular mechanisms, including gene expression, epigenetic modifications, and genetic variations, which dictate an individual's unique response to nutrients.

Nutrients and bioactive compounds may directly influence gene expression, the process by which the instructions in DNA are converted into a functional product, such as a protein. For example, some dietary components have been found to activate or suppress genes that influence metabolic pathways, immune responses, and disease susceptibility.

Moreover, epigenetics—DNA methylation, histone modifications, and interactions with non-coding RNA—is an important mechanism in the regulation of gene activity without changes to the genetic code. Studies have documented that a diet rich in folate, choline, and B vitamins ensures DNA methylation, a process crucial for appropriate cellular activities and the prevention of disease.

Dietary effects on gene expression: Micronutrients like vitamins and minerals, being the cofactors, participate in many biochemical reactions regulating gene activity. For example, folate (Vitamin B9) is necessary in methylation processes that affect genes responsible for an individual's susceptibility to cancer, cardiovascular disease, and neural development.

Macronutrient-metabolic pathways: Even the macronutrients—proteins, fats, and carbohydrates—affect genetic expression. Omega-3 fatty acids from fish and flaxseeds activate genes that reduce the synthesis of pro-inflammatory prostaglandins and promote the breakdown of

triglycerides, reducing the risk for coronary artery disease.

Bioactive compounds and protective gene activation: Phytochemicals like polyphenols (from green tea, berries, and dark chocolate) activate the Nrf2 pathway, which amplifies the antioxidant and detoxification defences of the body.

Genetic variations and personalised nutrition: The future of health care will depend on personal nutrition, or nutritional plans prescribed according to a person's genotype. An excellent example here is the MTHFR gene that determines a particular type of folate metabolism. Individuals possessing a mutation of MTHFR show impaired utilisation of folates and hence a higher risk for cardiovascular disorders, neural tube defects, and mental instability. This vulnerability could be modified by adjusting the intake of folates.

Similarly, the APOE gene affects cholesterol metabolism, whereby carriers of the APOE4 variant are at a higher risk for Alzheimer's disease and cardiovascular problems. Some evidence suggests that this genetic risk is partly offset with a diet plentiful in omega-3 fatty acids through a modifying effect on lipid metabolism.

The road ahead - a new era in nutrition science: While research in nutrigenomics is still ongoing, so is the bright prospect of a future when dietary recommendations would be made according to an individual's genetic profile. Such a practice can revolutionise public health through targeted interventions aimed at the prevention of diabetes, cardiovascular disorders, and even certain cancers.

But still, large-scale genetic studies and ethical issues relating to genetic testing are yet to be overcome before nutrigenomics becomes mainstream. Whatever the case may be, one fact is that our genes are not our destiny; diet plays the most pivotal role in shaping our health.

By embracing nutrigenomics, we go beyond generic dietary advice into precision nutrition that allows each of us to make active dietary choices using our very own genetic blueprint for guidance.

The writer is the founder & CEO of Nutrition For Change. Email: raisameh20@gmail.com

