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Seminar Proceedings

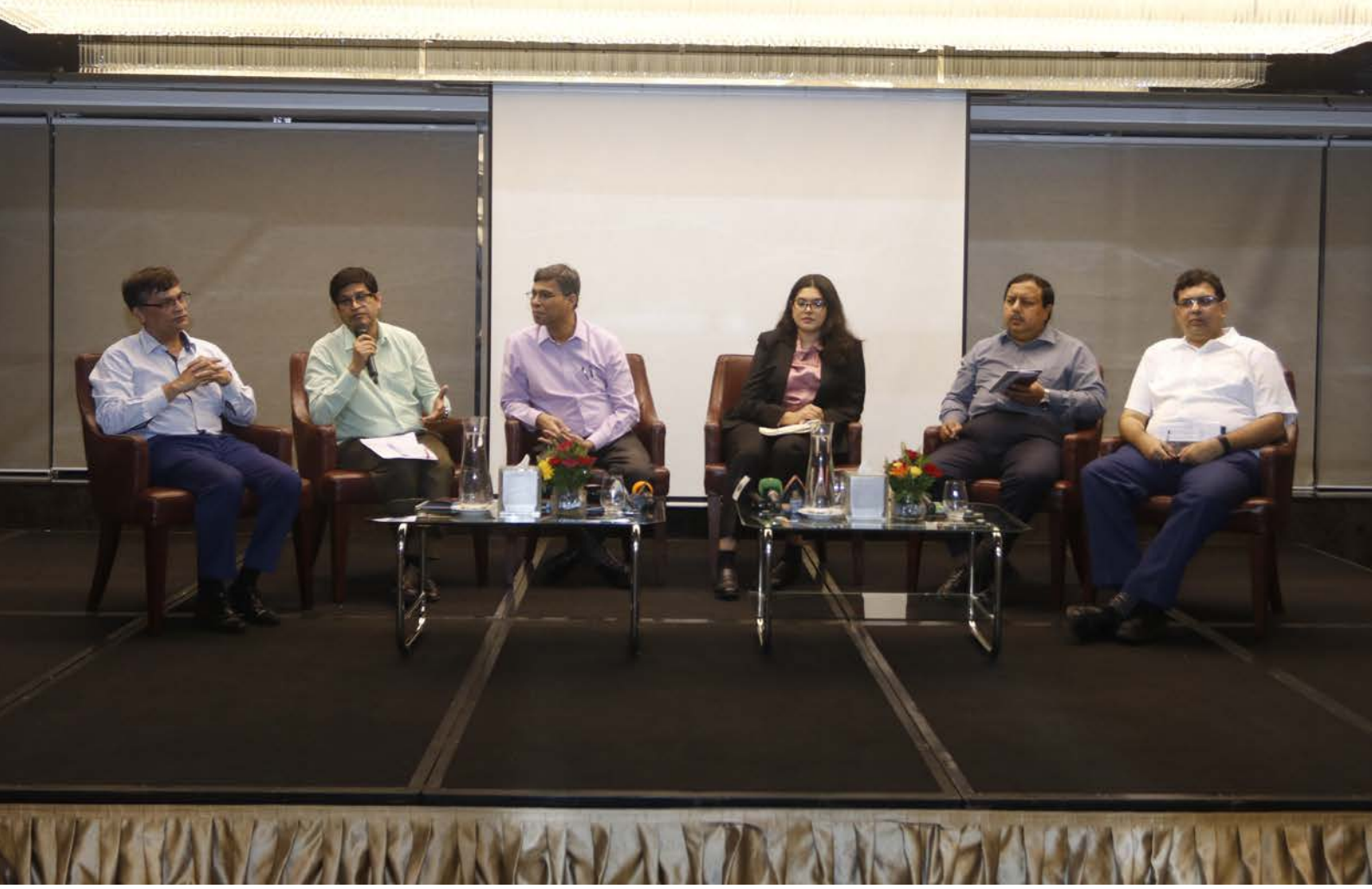
Heatwave in Bangladesh

23 May 2024 | Dhaka

Seminar Proceedings

Heatwave in Bangladesh

CONTENT



1. Introduction

Bangladesh experienced its longest heat wave in recorded history this April 2024, but the sufferings doesn't end here. The forecasts are showing no improvement for the rest of the month, according to meteorologists. Climate change is already exacting a heavy toll on vulnerable population in different climatic hotspots of the country, but with nearly 75% of the country experiencing continuous heat waves this year, the future of sustainable living seems to be extremely bleak.

To contribute to the efforts to minimizing such threats of Climate Change and adapt to this continued deterioration, BRAC Climate Change Programme in collaboration with The Massachusetts Institute of Technology (MIT), USA has initiated a flagship initiative 'Jameel Observatory-CREWSnet'. The JO-CREWSnet aims to empower the communities and institutions by climate projection information and data.

Discussions about heat stress were recently held in Dhaka, focusing mainly on localized and specifically urban heat island issues. In contrast, BRAC aimed to address the broader issue of heat waves, including their scientific basis and impact on coastal areas. At BRAC's seminar on heat waves, held on May 23, 2024, at the Renaissance Hotel in Dhaka, MIT scientists presented the climate science behind heat waves along with keynote speeches from the chief guest and director of Climate Change Programme, Urban Development

Programme and Disaster Response Programme of BRAC. The event included invitees such as policymakers, administrators, development actors, academics, media representatives, and civil society members. A panel discussion which included distinguished professionals from the ministry, academics, climatologists, meteorologists, and government institutions shed light on the challenges and opportunities for Bangladesh and global actors to synergize adaptation efforts to unprecedented heatwaves. The seminar also addressed the severe impacts of recent heat waves on various sectors in Bangladesh, including agriculture, health, and livestock.

1.1 Objective of the seminar:

Sensitizing the civil society including the policy makers and media about the Science-Policy-Practice synergy of Heatwave.

1.2 Specific objectives:

1. The participants will have an idea about the science of the Heatwave;
2. The participants know about the geography of Heatwave with the frequency, intensity and impact;
3. The participants will suggest action plans where JO-CREWSnet can contribute at the Local, Regional and National level.

2. Programme Schedule

Seminar on Heatwave in Bangladesh

Climate Change Programme, BRAC

Renaissance Dhaka Gulshan Hotel, 78 Gulshan Ave, Dhaka 1212
Thursday, 23 May 2024, 5:30 PM to 7:30 PM

Schedule:

Time	Discussion Topic	Personnel
17:30 -17:35	Welcome and opening the Discussion	**Tapas Ranjan Chakraborty** Senior Programme Manager, Climate Change Programme, BRAC
17:35-17:45	Impact of the April 2024 Heatwave in the South-West of Bangladesh	**Md. Liakath Ali**, PhD, Director, Climate Change Programme, Urban Development Programme and Disaster Risk Management Programme, BRAC
17:45-18:05	Cause and Projection of Heatwave in Bangladesh	**Elfatih A. B. Eltahir** Professor, Hydrology and Climate Massachusetts Institute of Technology (MIT) & **Yeon woo Choi** Post-Doctoral Researcher Massachusetts Institute of Technology (MIT)
18:05-18:45	Discussion on the Current Heatwave in Bangladesh	**Dharitri Kumar Sarkar** Deputy Secretary Ministry of Environment, Forest and Climate Change (MoEFCC) **Dr. Muhammad Abul Kalam Mallik** Meteorologist, Bangladesh Meteorological Department **Dr. Shameem Hassan Bhuiyan** Meteorologist, Bangladesh Meteorological Department **Ms Bushra Afreen**, Chief Heat Officer, North Dhaka City Corporation, Dhaka, Bangladesh **Dr. A.K.M. Saiful Islam** Professor, Institute of Water and Flood Management, Bangladesh University of Engineering and Technology
18:45-19:15	Open Discussion	**All Audience**
19:15-19:30	Speech of Chief Guest	**Dr. Farhina Ahmed** Secretary Ministry of Environment, Forest and Climate Change (MoEFCC)
19:30-19:40	Summary and closing	**Asif Saleh** Executive Director, BRAC

3. Detailed Overview of the Event

Opening Remarks by

Tapas Ranjan Chakraborty

Senior Programme Manager,
Green Development and Climate Change Adaptation Modeling, Climate Change Programme, BRAC

Tapas Ranjan Chakraborty made opening remarks that the south coastal zone of Bangladesh is severely impacted by the ongoing heatwave, which poses significant threats to the health, agriculture, and livelihoods of its residents. Farmers and fishermen in this region are particularly vulnerable, and families are struggling to adapt to the changing climate. The initiative also seeks to integrate traditional indigenous knowledge from the Barind region with modern technology, leveraging local techniques in housing, agriculture, and water management to create innovative and culturally rooted solutions. This collaboration exemplifies the merging of traditional practices with advanced scientific approaches to enhance climate resilience.

Today, a diverse group of stakeholders has been gathered to engage in a meaningful and action-oriented dialogue. From a policy standpoint, it is acknowledged that current policies are national in scope, making it difficult to address context-specific problems in communities that must take socioeconomic, cultural, and geographic factors into account when designing solutions. The goal is to develop a realistic and workable plan to address the challenges posed by heatwaves. It is recognized that among all climate hazards, heatwaves create the most inequality, hitting the most vulnerable hardest.

Keynote by

Md. Liakath Ali

Director, Climate Change Programme, Urban Development Programme and Disaster Response Programme, BRAC

Md. Liakath Ali, PhD, stated, Bangladesh experienced its highest number of hot days in a row in April 2024, with 43.8°C recorded in Jashore as the hottest temperature in 52 years [1]. The hottest and driest April in 43 years resulted in at least 15 deaths and 33 million students being affected by school closures. From human health, to workforce, to agriculture and fisheries, almost every sector of day-to-day life, be it urban or rural have been impacted tremendously due to the heatwave. Some noteworthy statistics nationwide that can be highlighted - 20% of 2.25 CR tonnes faces heat threat, potentially reducing boro production, temperature increase could decrease boro production by 6-12%, prolonged drought caused 30% mango buds to fall [2,3,4]. Moreover, the poultry sector in Bangladesh has suffered a significant loss of 100,000 chicken daily, costing them BDT 200 CR in just two weeks. The Dairy Farm Owners Association estimates a 25% loss of dairy products, while the Department of Labor estimates a 10% loss. The intense heat also directly affected 3 lakh prawn growers in Khulna [5,6,7]. A study reveals, Dhaka's labor-intensive industries lose BDT 50,000 CR annually due to heat, reducing daily revenue by 22%, causing 7 billion working hours lost, and causing a 10-15% decrease in workers in cement and apparel industries [8,9,10,11].

In the JO-CREWSnet study areas, in the light of the opinion of local communities, irrigation spending increased by 10%, Boro yield dropped by 40%, mango yields dropped (approx.), seed germination failed, slow growth and withering, and pest and disease infestations increased particularly in Baradal and Satbaria. In the profitable shrimp farm areas of Baradal and Munshiganj, heatwave caused prawn farming to incur BDT

20,000 maintenance expense, leading to shrimp disease epidemic; fish farmers faced financial loss as they were unable to pre-harvest. Additionally, extreme heat and scorching sunlight severely limited the grazing land and natural feed sources for livestock. The high heat shortened working hours, resulting in an average daily loss of BDT 200-300 for farmers and gher laborers.

Satkhira experienced a doubled daily drinking water demand (demand raised to 10,000 Liter/Day as opposed to regular demand and source capacity of 2500-4000 Liter/Day), disrupting water supply in different villages for seven to eight days. Alongside drinking water, bathing water crisis was recorded. Water treatment plants were impacted due to this excessive pressure to meet the demand. The reverse osmosis (RO) membrane failure led to a 23,000 Taka (approx.) increase in maintenance costs, while water shortage caused PSF water contamination and depletion of RWH. Additionally, canal salinity rises were reported as irrigation ponds dry up.

Two respondents of Satkhira upazila shared the experience of the heat stressed period:
‘The PSF, the only operational in the neighborhood, serves 100 families daily. Due to extreme heat and contaminated water, the supply was temporarily turned off. However, recent rains have filled the pond, and due to public pressure, the PSF has reopened’- Gouro Podo Dhali, Bamondanga, Assassuni.

‘The heat wave has caused a drying up of a pond used for fish farming and bathing, resulting in a 1.5-foot water level, making it unsuitable for swimming and farming. The water is being pumped temporarily, but its color has deteriorated’-Shyamal Krishno Mondal, AssassunThe heat wave experience is influenced by factors like, type of housing settlements (pacca, semi-kacca with tin roofs, kacca, informal settlements), choice of building materials, space constraints, ventilation facilities and so on. Increased load shedding also exacerbated the experience of harsher summers, resulting severe health consequences. Hyperthermia, a condition where the body's core temperature rises above 40.5°C, can cause symptoms like flushing, sweating, headaches, lightheadedness, muscle cramping, disorientation, and coma. Munshiganj Union Health and Family Welfare Centre's medical officer, Pongshi Mridha, reported a daily increase in diarrhea cases, mainly among children, rising to 8-10 patients compared to the usual 4-5 cases. However, in April, fewer patients sought medical attention compared to previous months. This could be due to the fact that the travelling to the hospitals might have been too difficult and discomforting in the extreme heat- according to the medical officer. Community market timing was disrupted, schools were closed, and a teacher had died in Satkhira. To cope with the situation locals resorted to frugal solutions such as covering the house roofs with wet jute sacks, creeper vegetable cultivation, water hyacinths, palm leaves, watering on the roofs, temporary extension of houses made with bamboo and jute mats to make open space maximizing airflow, shift of market timings from morning to evenings.

To understand the scenario in the urban setting, a rapid survey carried out by BRAC UDP in nine urban towns illustrated how heat stress affected the earnings of rickshaw pullers and street vendors. Exhaustion from heat, decrease in sales, schools and colleges being closed were highlighted as some of the major reasons of reduction of income by the respondents.

Dhaka's land surface temperature (LST) increased by an average of 6.43°C between 1993 and 2020, with a 67% increase in built-up area. In 2020, only 2% of healthy green spaces existed. Heat stress costs Dhaka $6 billion annually, and according to the 2021 Mujib Climate Prosperity Plan rising temperatures could cause Bangladesh to lose almost 5% of its working hours by 2030, resulting in 3.83 million jobs and 4.9% GDP losses. To address these crucial issues, the first-ever Paris-aligned Climate Action Plan in Dhaka was launched by Dhaka North and South City Corporation (DNCC and DSCC). The National Guidelines provide a comprehensive framework for addressing heat-related health risks, developed in collaboration with health professionals. They outline plans for Dhaka North and South to achieve carbon neutrality by 2050, aligning with Bangladesh's 2030 emissions reduction goal.

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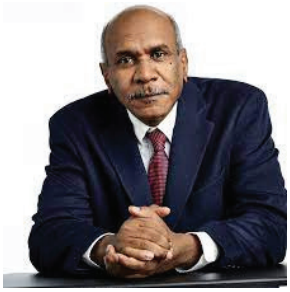
Climate Science and Projections of Heatwaves Presented by



Elfatih A. B. Eltahir

Professor, Hydrology and Climate
Massachusetts Institute of Technology (MIT) &

Yeonwoo Choi

Professor and Post Doctoral Researcher of
Massachusetts Institute of Technology (MIT)

The recent heatwave in Bangladesh has been recorded as a historic high in South Asian countries, with temperatures observed to be three degrees higher than usual.

Based on in situ observations (available at *https://www.ncei.noaa.gov/products/land-based-station/integrated-surface-database*) and a state-of-the-art atmospheric reanalysis data (ERA5), it was found that the western part of Bangladesh, including Ishurdi and Jashore, were the most affected areas in the country from dry heat extremes. The heatwave has been attributed to both human-induced factors (e.g., burning fossil fuels) and natural climate variability (e.g, ENSO). For instance, as a consequence of anthropogenic climate change, the mean global surface temperature in April 2024 was 1.32 degrees C above the 20th-century average of 13.7 degrees C, making it the warmest April in the historical record (NOAA 2024). Heatwaves during this period affected many South Asia countries, including India, Bangladesh, southeast China, and the Philippines.

It is suggested based on the limited observational records that El Nino accompanied by significant warming in the equatorial central Pacific could aggravate heat stress in April 2024. Also, prolonged dry condition appeared to play a role in heatwave events by allowing the land to heat up more easily in southwestern Bangladesh.

For future projections, the average temperature will increase by 1.1 to 1.5 degrees Celsius compared to the historical average, based on selected scenarios. The number of heatwave day and its duration are expected to increase by the mid-century, and it has been projected that humid heat extremes will be prevalent in June, July, and August. Unfortunately, these heatwaves are expected to become the norm over the next 30 years.

Panel Discussion Highlights

Dharitri Kumar Sarkar, Deputy Secretary of the Ministry of Environment, Forest, and Climate Change, noted that while 2023 was hot, 2024 has been even hotter. By 2030, Bangladesh is expected to be one of the six hottest countries in the world, largely due to the loss of greenery and wetlands. He highlighted that Bangladesh is at the forefront of leading global adaptation strategies, setting an example for other nations. Bangladesh plays a predominant role in climate change politics and discourse on the global stage.

Furthermore, he mentioned that the National Adaptation Plan (NAP) for 2023-2050 includes several strategies to deal with heatwaves. The plan outlines specific adaptation measures for various sectors such as health, agriculture, water resources, and urban planning. In urban areas, the NAP emphasizes the development of heat-resistant infrastructure, improved urban planning to increase green spaces, and enhanced early warning systems for heatwaves.

Muhammad Abul Kalam Mallik, Meteorologist of the Bangladesh Meteorological Department (BMD), highlighted the importance of local knowledge and globalizing local insights. He said that till April we experienced 1.32 degrees Celsius higher due to global warming. In the 20th century we found the average temperature to be 13.9 degrees Celsius, but now it is 1.32 degrees higher. It is very challenging situation for climatologists and meteorologists across the world. The atmospheric circulation has changed dramatically. Probability of numerical based weather forecasting systems are well established and highly sophisticated now. He emphasized that BMD is a forecasting agency which collectively disseminates information through channels like WhatsApp, their website, and Inter Voice Recorder (IVR). This approach ensures timely and accessible communication of weather forecasts and warnings. According of Standing Order of Bangladesh, BMD is bound to disseminate all forecasting information to the people. We will work further in imparting this information on the root level on the ground. Climate factors should be incorporated during projection.

He also mentioned that the MIT team could incorporate the effects of Indian Ocean Dipole (IOD) phenomena and Madden-Julian Oscillation in their presentation.

Dr. Shameem Hassan Bhuiyan, Meteorologist from BMD introduced the Global Framework for Climate Services (GFCS), from World Meteorological Organization (WMO) which identifies key sectors impacted by climate change: agriculture and food security, risk reduction, water, health, and energy. Dr. Bhuiyan stressed the need for actionable information for farmers, advocating for early warning and early action as vital strategies. The Department of Agricultural Extension (DAE) and BMD will collaborate to provide farmers with crucial advisory information based on forecasts, helping them respond effectively to climate threats. BMD is providing agrometeorological service in collaboration with DAE to farmers and Agro-research institutions to reduce risk of crops and further research. The data which is being provided focuses on different crop stages as well as for livestock and fisheries. The three-month forecast data is named as “seasonal projection”. For the whole process, they developed an anticipatory action protocol.

Ms. Bushra Afreen, Chief Heat Officer of North Dhaka City Corporation, emphasized the need for a fundamental redesign of Dhaka’s infrastructure to address heatwaves. She called for cross-ministry and departmental collaboration, noting that the city's current design is not equipped to handle extreme heat. The North City Corporation is working to integrate BMD forecasts into actionable plans through stakeholder collaboration, aiming to create a more resilient urban environment. Good governance is essential here which currently lacks in the system. She further encouraged the audience to think critically whether we have the capacity and finances to become adaptive. Redesigning a whole city such as Dhaka requires extensive expertise, resources and financing. Furthermore, to disseminate forecasting information amongst city corporation officials, a “city app” has been developed which shows important information such as changes in temperatures and what health hazards could happen due to this, and the probable prevention methods.

Dr. A.K.M. Saiful Islam, a Professor at the Institute of Water and Flood Management, BUET, has highlighted the exacerbating effect of urbanization on heat in Dhaka, which is significantly warmer than coastal areas. He pointed out that the additional heat due to global warming is largely driven by anthropogenic factors. Dr. Islam advocates for collaborative efforts to address climatic shocks like extreme heatwaves, emphasizing the need for integrated and sustained action across various sectors.

Considering the potentials of research work for understanding the future of heatwaves, it's important to note that El-Nino is not the sole factor for the unprecedented heatwaves. The ocean is absorbing a significant amount of heat due to global warming, with 90% of excess heat originating from it. The government is recognizing the challenges; wetland covers less than 7%, and vegetation covers less than 3% in Dhaka city. According to the IPCC, heatwave incidents are projected to increase in frequency. When the wet bulb temperature exceeds 35 degrees Celsius, prolonged exposure can be fatal to humans. Data scarcity poses a significant challenge, emphasizing the necessity for new knowledge, particularly in regional adaptation strategies.

Remarks by Chief Guest

Dr. Farhina Ahmed

Secretary, Ministry of Environment, Forest and Climate Change (MoEFCC)

The seminar featured keynotes from the Chief Guest, Dr. Farhina Ahmed, Secretary of the Ministry of Environment, who emphasized the integration of climate health aspects into the National Adaptation Plan. She emphasized the critical role of policymakers in addressing heatwaves, which requires data-driven decisions supported by robust research. She noted that the livelihood and environmental impacts of heatwaves were not fully anticipated in the original NAP.

Dr. Ahmed highlighted the need for innovation, science, and capacity building to effectively deal with climate change. She stressed that further work is necessary to enhance the NAP's effectiveness in addressing these unprecedented extreme heat events. Discussions highlighted the disproportionate effects on marginalized communities and stressed the need for climate-resilient infrastructure and just climate financing. She also announced that the government is now working on incorporating health hazards due to climate change into a new Health National Adaptation Plan (H-NAP) to further address these critical issues. Lastly, she appreciated the collaborative research project by MIT, BRAC, and Community Jameel which will assist policy makers to design data driven and science-backed national policies. Ministry of Environment, Forest and Climate Change (MoEFCC) is taking some research initiatives and some actions are already being implemented. We also need to build capacity and

awareness among diverse groups in the population so that citizens are better equipped to combat the effects of extreme heatwaves. She added, "We need to prepare our engineers and architects to develop infrastructure and designs that emphasize nature-based solutions. We must retrofit our current infrastructure and bring in new technologies to reduce heat generation." She further acknowledges that new knowledge and scientific data are required to design new strategies for adaptation and mitigation.

Summary and closing by

Asif Saleh

Executive Director, BRAC

Asif Saleh, the executive director of BRAC, mentioned that heatwaves need to be considered as a disaster given its intensity and unpredictability. One of his initiatives as ED was to stop the use of single-use plastics within the organization. He implemented a system, monitored by a team of auditors, to ensure proper adherence to this policy. Additionally, he introduced a sustainable waste recycling system that is also closely monitored. He emphasized that such initiatives need to be implemented not only at the governmental level but also at the institutional level.

Additionally, low-income populations are suffering the most from climate impacts. The marginalized people are even more marginalized and being penalized for something which they are not even responsible for which is the biggest irony. He thanks the government, policy makers, and other stakeholders to actively discuss about such issues in the global platform. A lot of talk about climate finance but there is no financing which reaches to the root people on the ground. The implementation of the National Adaptation Plan (NAP) globally requires US$397 billion. However, only 6% has been committed on the ground. OXFAM produced a recent report which highlights only USD 11 billion, not USD 24 billion, has been committed for adaptation. Out of 6% of committed adaptation budget, only 3% have gone to local organizations which is massive injustice on a global sphere for the most vulnerable people, and this gap of 3% is a system loss enjoyed by intermediaries and other organizations. It is no more a uni-polar world, rather a multi-polar world where we need to form alliances with the right people and right countries to amplify the voices of the most marginalized, staring from the farmers in Dar-es-salaam in Tanzania, or fishermen in Sundarbans, or the farmers in Barind region. The real magic will happen when climate science will meet the ground level dynamics and benefit the most vulnerable by helping them prepare for the climatic shocks from beforehand.

4. Media Coverage

Total Media Coverage

27 May 2024

Online: Protidinersangbad.com (1)

26 May 2024

Print: The Daily Observer | Bangladesh Post | Business Post | Bangladesh Today | Our Time | News Time | Daily Industry (7)

Online: Thenewnation.com | Observerbd.com (2)

25 May 2024

Print: The Daily Star | Bhorer Kagoj | Daily Sun (3)

Online: Bangladeshpost.net | Thebengalitimes.com | The Daily Star.net | Ittefaq.com.bd | Bhorer kagoj.net | Zoom bangla.com | Ajker tangail.com | Daily-sun.com | Dailycountrytodaybd.com | Thebangladeshtoday.com | Daily-sun.com | Bssnews.net | Prothomalo.com (13)

24 May 2024

Print: The Financial Express (1)

Online: Daily-sun.com | Bartabazar.com | Dainik jamalpur.com | Rtvonline.com | Daily-bangladesh.com | Jagonews24.com | Bdnews24.com | The Financial express.com.bd | Jugantor.com | Sherpurtimes.com | Protidiner bangladesh.com (11)

TV/ Radio: Channel 24 | Jamuna TV | NEWS24 | Channel 24 | Rajneeti.com | Jagonews (6)

23 May 2024

Online: Vinnabarta.com | Bhorer kagoj.net | Ajker patrika.com | News24bd.tv (4)

TV/Radio: Channel i | NTV | Bdnews24 (3)

Online Coverage

(All thumbnails are hyperlinked)

RTV Online

সর্বশেষ En

জাতীয় রাজনীতি দেশজুড়ে বিনোদন

বাংলাদেশ

যেভাবে কমবে ঢাকার তাপপ্রবাহ, জানালেন হিট অফিসার বুশরা

আরটিভি নিউজ

২৪ মে ২০২৪, ১৬:৪৮

1.5k Shares

ছবি: সংগৃহীত

সবাই মিলে চেষ্টা করলে ঢাকার তীব্র তাপপ্রবাহ কমানো অসম্ভব কিছু নয় বলে জানিয়েছেন ঢাকা উত্তর সিটি করপোরেশনে (ডিএনসিসি) নিযুক্ত চিফ হিট অফিসার বুশরা আফরিন।

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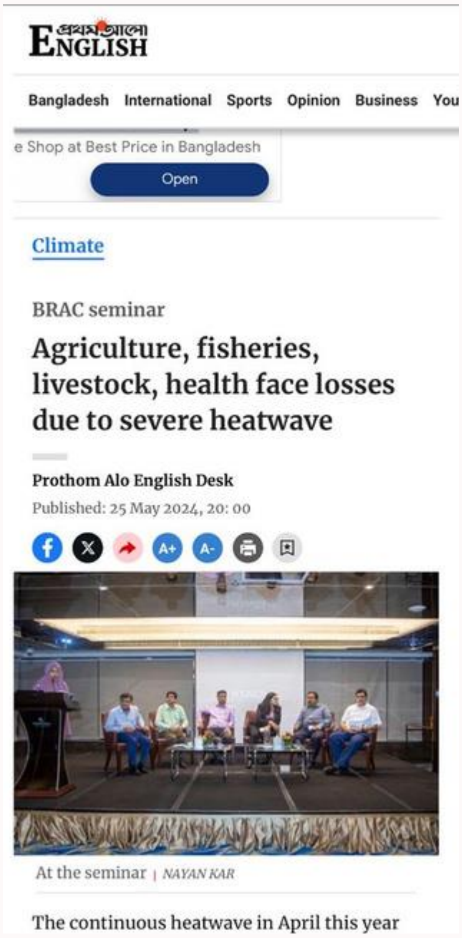


প্রথম আলো English

Bangladesh International Sports Opinion Business You

Climate

BRAC seminar

Agriculture, fisheries, livestock, health face losses due to severe heatwave

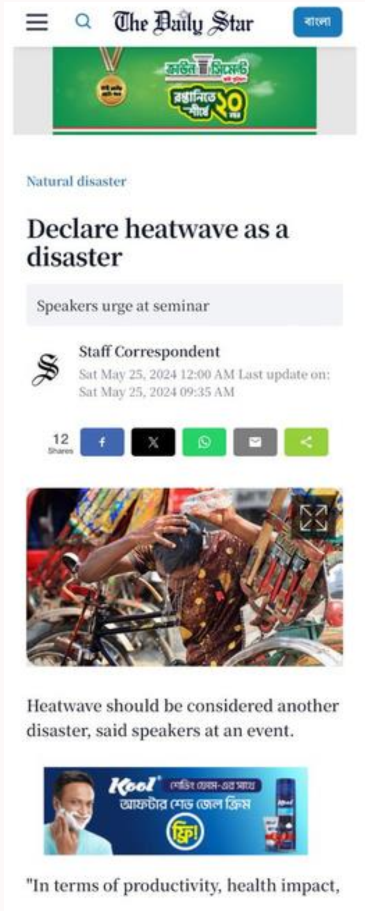
Prothom Alo English Desk

Published: 25 May 2024, 20: 00

At the seminar | NAYAN KAR

The continuous heatwave in April this year

The Daily Star



The Daily Star বাংলা

Natural disaster

Declare heatwave as a disaster

Speakers urge at seminar

Staff Correspondent

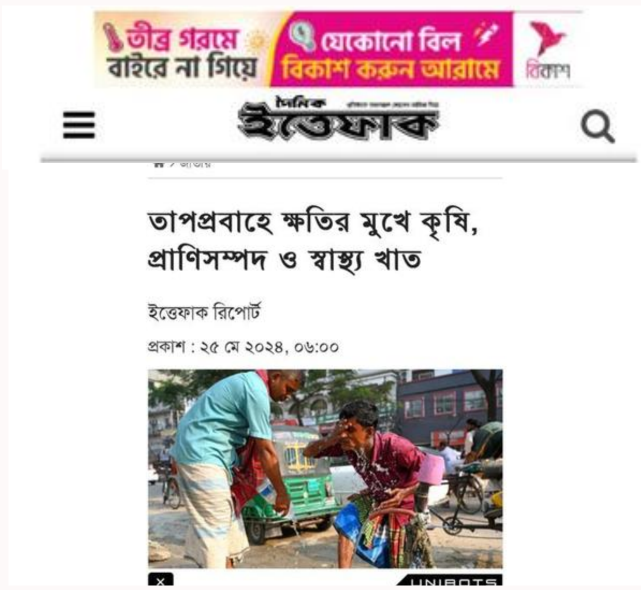
Sat May 25, 2024 12:00 AM Last update on: Sat May 25, 2024 09:35 AM

12 Shares

Heatwave should be considered another disaster, said speakers at an event.

"In terms of productivity, health impact,

Ittefaq



দৈনিক ইত্তেফাক

তাপপ্রবাহে ক্ষতির মুখে কৃষি, প্রাণিসম্পদ ও স্বাস্থ্য খাত

ইত্তেফাক রিপোর্ট

প্রকাশ : ২৫ মে ২০২৪, ০৬:০০

Print Media Coverage

(All thumbnails are hyperlinked)

The Daily Star

The Daily Star

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Declare heatwave as a disaster

Speakers urge at seminar

STAFF CORRESPONDENT

Heatwave should be considered another disaster, said speakers at an event.

"In terms of productivity, health impact, and considering all other aspects of heatwaves, we have to consider it another disaster," Asif Saleh, executive

Bhorer Kagoj

ভোরের কাগজ

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ব্র্যাকের সেমিনারে বুশরা আফরিন

সম্মিলিত প্রচেষ্টায় তীব্র তাপদাহ কমানো সম্ভব

রাজধানীর গুলশানের একটি হোটেলে তাপপ্রবাহের ঝুঁকি, এর কারণ ও প্রতিকার নিয়ে আয়োজিত সেমিনারে সাংবাদিকদের বিভিন্ন প্রশ্নের জবাবে দেন চিফ হিট অফিসার বুশরা আফরিন

কাগজ প্রতিবেদক : সম্মিলিতভাবে চেষ্টা করলে ঢাকার তীব্র তাপপ্রবাহ কমানো অসম্ভব কিছু নয় বলে মনে করেন ঢাকা উত্তর সিটি করপোরেশন (ডিএনসিসি) চিফ হিট অফিসার বুশরা আফরিন। তিনি বলেন, বর্তমানের এই ঢাকা শহর গড়ে তোলার সময় চরম তাপপ্রবাহের বিষয়টি বিবেচনায় রাখা হয়নি। সীমিত সম্পদ হাতে নিয়ে দীর্ঘমেয়াদে টেকসই উন্নয়নের কথা বিবেচনায় রেখে আমাদের সবাইকে সমন্বিতভাবে গৃহীত প্রতিশ্রুতি বাস্তবায়নে একযোগে কাজ করতে হবে।

গত বৃহস্পতিবার সন্ধ্যায় রাজধানীর গুলশানের একটি হোটেলে তাপপ্রবাহের ঝুঁকি, এর কারণ ও প্রতিকার বিষয়ক সেমিনারে সাংবাদিকদের প্রশ্নের জবাবে তিনি এসব কথা বলেন। বেসরকারি উন্নয়ন সংস্থা ব্র্যাক আয়োজিত এই সেমিনারের উদ্দেশ্য ছিল তাপপ্রবাহের বিজ্ঞান-নীতি-অনুশীলন সমন্বয় সম্পর্কে নীতিনির্ধারক, শিক্ষাবিদ, গণমাধ্যম ও নাগরিক সমাজকে অবহিত ও সচেতন করা। এতে সভাপতিত্ব করেন ব্র্যাকের নির্বাহী পরিচালক আসিফ সালেহ। সেমিনারের শুরুতে বাংলাদেশে এ বছরের তাপপ্রবাহের প্রভাব নিয়ে একটি গবেষণা উপস্থাপন করেন ব্র্যাকের জলবায়ু পরিবর্তন কর্মসূচি, নগর উন্নয়ন কর্মসূচি ও দুর্যোগ ঝুঁকি ব্যবস্থাপনা কর্মসূচির পরিচালক ড. মো. লিয়াকত আলী।

চিফ হিট অফিসার বলেন, তীব্র তাপপ্রবাহে ঢাকার নিম্ন আয়ের মানুষ

এরপর-পৃষ্ঠা ২ কলাম ২

সম্মিলিত প্রচেষ্টায় তীব্র

● শেষের পাতার পর

সবচেয়ে বেশি ঝুঁকিগোষ্ঠী। এ তাপপ্রবাহ থেকে বাঁচতে তাদের কোনো উপায় জানা নেই। আমাদের উচিত তাদের সমস্যাগুলো চিহ্নিত করে এলাকা ধরে সমাধানের চেষ্টা করা। তিনি বলেন, ঢাকা শহরে তাপপ্রবাহ নিয়ন্ত্রণ করা কঠিন হলেও আমি আশাবাদী। আমরা ঢাকা উত্তরের তাপপ্রবাহের সমস্যাগুলো পয়েন্ট আউট করেছি। এ সমস্যা সমাধানে স্বল্প এবং দীর্ঘমেয়াদি কিছু পরিকল্পনা নিয়ে আমরা কাজ করছি।

ঢাকা দক্ষিণ সিটি করপোরেশন এলাকার তাপপ্রবাহ নিয়েও কাজ করার নগর বনায়ন তৈরির উদ্যোগের বিষয়ে তিনি বলেন, বনানীতে যে জায়গায় নগর বনায়ন করা হবে, সে জায়গাটি সড়ক ও জনপদ অধিদপ্তরের। তাদের কাছ থেকে জায়গাটি অস্থায়ী বরাদ্দ পেতে ছয় মাস সময় লেগেছে। এটা পাওয়া গেছে। এখন পরবর্তী সময় কাজ শুরু হবে।

অনুষ্ঠানে প্রধান অতিথির বক্তব্যে পরিবেশ, বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়ের সচিব ড. ফারহিমা আহমেদ বলেন, জাতীয় অভিযোজন পরিকল্পনায় স্বাস্থ্য খাতে জলবায়ু পরিবর্তনের প্রভাবের বিষয়টি অন্তর্ভুক্ত করার জন্য আমরা কাজ করছি। তবে সবার আগে অধ্যাপক এলফাতিহ এ. বি. এলতাহির ও গবেষক ইয়েদন উ চোই। তারা বলেন, এপ্রিল-মে হচ্ছে ঋতু পরিবর্তনের সময়, যখন পানির ঘাটতি দেখা দেয় এবং তাপমাত্রা বেড়ে যায়। দুর্ভাগ্যবশত, আগামী ৩০ বছরের মধ্যে এমন চরম তাপমাত্রাই স্বাভাবিক হয়ে উঠবে বলে আশঙ্কা করা যায়। তাই জলবায়ু পরিবর্তনের প্রভাবে মোকাবিলায় এখন থেকেই সব ধরনের প্রস্তুতি নিতে হবে।

সেমিনারে তাপপ্রবাহের কারণ এবং এর প্রতিকার বিষয়ে বক্তব্য রাখেন পরিবেশ, বন ও জলবায়ু পরিবর্তন

The Financial Express

The Financial Express

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Dhaka's temp rises by 6.43°C in 27 yrs

FE REPORT

The land surface temperature of the capital has increased by 6.43 degrees Celsius in 27 years with an average annual temperature rise of 0.24 degrees Celsius while Dhaka has never been built as a climate-resilient city.

According to a study shared at a seminar on Thursday, researchers said Dhaka was losing the labour value equivalent to $6.0 billion every year.

If this continues, Bangladesh may lose 5.0 per cent of working hours by 2030. That equates to more than 3.3 million full-day jobs and 4.9 per cent GDP loss.

Md Liakath Ali, director of the Climate Change Programme, Urban Development Programme, and Disaster Risk Management Programme at BRAC, said this in his presentation.

He showed that from 1993 to 2020 the LST of Dhaka saw the temperature rise.

Since 1989, greening has decreased from 17 per cent to 2 per cent, he added.

Participants in the seminar said Southeast Asia is among the most climate-vulnerable regions in the world.

Since early April, there have been numerous reports of extremely hot temperatures in this area. However, scientists warn that there are no quick fixes.

Bushra Afreen, chief heat officer of Dhaka North City Corporation (DNCC), spoke at the seminar and lamented that Dhaka city has never been built as a climate resilient city.

She termed Dhaka as a unique city as there are so many authorities separately govern the city.

Mentioning that the glass façade or building of glass wall causes heating up buildings environment, she emphasised on regulation on the use of glass against the given weather in Bangladesh.

Experts at the seminar strongly advocate an initiative to plant more trees in both urban and rural areas as a way to reduce extreme heatwaves and protect biodiversity.

Farina Ahmed, secretary of the Ministry of Environment, Forest and Climate Change, attended the seminar as the chief guest.

Asif Saleh, executive director of BRAC, spoke among others.

Prof Elfatih A.B Eltahir from the Hydrology and Climate Department and Yeon Woo Choi, a post-doctoral researcher at the Massachusetts Institute of Technology (MIT), provided insights on the causes and projections of heatwaves in Bangladesh.

Muhammad Abul Kalam Mallik, a meteorologist at Bangladesh Meteorological Department, underlined that localisation of knowledge is necessary to address the climate change as it has become increasingly challenging to deal with the climate effects and temperature rise.

Fossil fuel use remains a major cause of temperature rise, participants added.

Dharitri Kumar Sarkar, deputy secretary of environment ministry, said extreme weather like heatwaves would remain a global problem and regular climate disasters in days ahead.

The people in and out of major cities are similarly affected by heatwaves as temperature saw a rise, he said.

The government has taken measures like national adaptation plan to duly address the climate challenges, he added.

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Television Coverage

(All thumbnails are hyperlinked)

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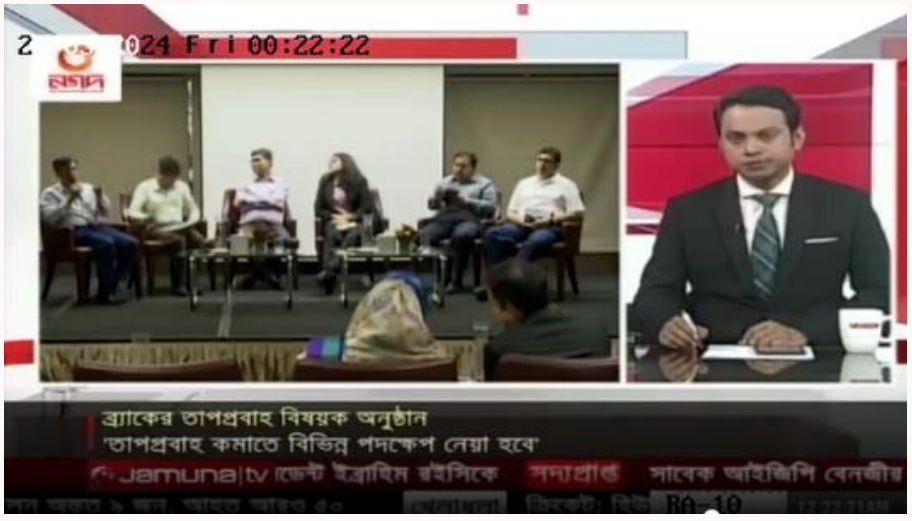

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