The Paily Star







## BREATHING CLEAN Protecting lives from air pollution

Gazipur District Administration, World Vision Bangladesh and Artistic Communication, in association with The Daily Star, organised a roundtable titled "Impact of Air Pollution: Protecting Children and Elderly Persons" on July 8, 2023. Here we publish a summary of the discussion.



Manas Biswas, Technical Coordinator - Integrated WASH & CESP, Tongi Urban Programme, World Vision Bangladesh.

For the past fifty years, starting in 1972, World Vision has dedicated its efforts to

the well-being of children. Our goal for 2030 is to serve one crore children. Since 2014, World Vision has been actively working in Tongi, one of the four areas covered by the Dhaka Urban Programme. We have also implemented projects in five wards of the Gazipur City Corporation.

World Vision Tongi aims to raise awareness among citizens to actively participate in preventing air pollution. We regularly measure the level of air pollution in various areas of Tongi using our Air Quality Index (AQI) measuring equipment. We strive to collaborate with government and non-governmental entities working on air pollution issues.

Through our Waste-to-Wealth program, we have trained 60 female volunteers. These workshops have empowered these women to transform plastic bottles into beautiful showpieces and repurpose waste paper into pen bodies.

We hope that this roundtable discussion will generate valuable suggestions to combat air pollution and, thus, ensure the well-being of children and adults.



Joanna D'Rozario, Urban Programme Technical Manager, World Vision Bangladesh

In recent years, air pollution has led to a disturbing rise in human mortality rates. Global reports on air

pollution indicate that in 2019 alone, the number of deaths attributed to this issue reached 173,500, marking an increase of 50,000 compared to 2017. Disturbingly, Dhaka has emerged as the most polluted city in the world due to unhealthy air quality, as reported by Prothom Alo on January 14, 2023. Furthermore, the Gazipur district recorded the highest air pollution among all 64 districts, according to a news conference by Stanford University's Air Quality Study Center on February 3, 2022.

In June 2022, World Vision's data revealed that the average concentration of particulate matter and pollutants in the Tongi area of Gazipur was 192 micrograms per cubic meter, which escalated to 375 micrograms in September 2022. These alarming levels of harmful particulate matter and pollutants in the air pose risks to human life, wildlife, and the environment.

The detrimental impacts of air pollution are both short-term and long-term, with vulnerable populations such as children and the elderly suffering the most. Health issues resulting from air pollution include respiratory ailments like asthma, lung cancer, brain damage, liver and kidney damage, heart problems, and breathing

Additionally, air pollution wreaks havoc on crops, forests, and wildlife, while also damaging the ozone layer and contributing to acid rain, impacting trees, soil, rivers, and wildlife. It also plays a role in climate change, with urban areas being particularly affected.

The main causes of air pollution are densely populated areas and unplanned urbanization. Faulty emissions systems in vehicles, especially those running on diesel or oil, contribute significantly. Brick kilns near cities, inadequate waste management, emissions from factories, deforestation, faulty drainage systems, and the use of plastic materials further exacerbate the

Efforts to mitigate air pollution include the approval of the Air Pollution Control Policy 2021 by the Ministry of Environment, Forests, and Climate Change, along with various other policies. World Vision Bangladesh is implementing programs to address these issues through awarenessbuilding initiatives, collaboration with institutions and factory owners, and engagement with parents. Gazipur City Corporation has declared a ward and four roads as litter-free and four schools have been brought under our Green School Movement. Research and policy support is also being provided by World Vision to tackle air pollution.

To ensure an environment free from air pollution, a collective effort is necessary. government, non-governmental organizations, and private sectors should conduct more awareness programs. Existing policies and regulations related to air pollution must be effectively implemented, and proper monitoring should be in place at every level. Those who violate regulations and fail to adhere to policies addressing air pollution should face appropriate penalties.





Dr. Mohammad Abdul

Kader, Professor, Department of Civil Engineering, DUET,

The prioritization of planned urbanization is of utmost importance in our city, and efforts are currently underway

through the master plan program led by the Department of Civil Engineering at DUET. However, we have encountered challenges in this process, particularly the issue of overlapping zones. Resolving this matter necessitates considering the relocation of certain industries and institutions, which presents a significant challenge.

Another critical concern is the pollution evident in our rivers and canals, indicating a failure by industries to adhere to regulations and guidelines. To effectively combat both air and water pollution, it is crucial for all industries to properly maintain their waste management systems and adhere to government rules. As Gazipur is an industrial area, it is essential that treatment plants within industries remain operational and perform at their peak. Currently, although every industry has a treatment plant, their utilization is not up to par. This misuse often stems from cost-saving measures aimed at maximizing profits. Strict monitoring of this issue by law enforcement agencies will greatly contribute to reducing pollution levels.

Brick kilns play a significant role in Gazipur's economy. While they hold mportance, the Bangladesh government has taken steps to address the problems associated with these kilns to reduce air pollution. It is worth emphasizing the need to nurture our ethical side throughout this process. Observing our surroundings, we witness the impact of a polluted environment on the health of our community members. A report indicates that the dust level in the air is 300mg, far exceeding the expected 65mg, highlighting the severity of the issue at hand.



Advocate Anwar Sadat **Sarker,** President, Gazipur Chamber of Commerce and Industry

Gazipur, an unplanned zone since the Pakistan period, faces challenges in consolidating industries into

a properly planned area. Despite the Prime Minister's proposal to create 100 economic zones nationwide, Gazipur did not receive an allocation. However, the establishment of Gazipur Development Authority brings hope for proper planning and development

The success of the Central Effluent Treatment Plant (CETP) project, crucial for combating pollution in rivers and canals. relies on the availability of an economic zone. Discussions with the economic zone authority indicate that an official letter from the Ministry office or a request letter from the Deputy Commissioner is required to establish an economic zone in Gazipur. Establishing an economic zone would enable the relocation of unplanned industries to a

Besides addressing the alarming dust levels in Gazipur's air, efforts are being made to prevent fire accidents in industries. Five teams, led by the Bangladesh Investment Development Authority (BIDA) and supervised by the Deputy Commissioner. are collaborating. We have identified 200 industries, excluding the clothing industry, with 100 of them already receiving suggestions and advice from BIDA. Our monitoring team focuses on industries emitting harmful gases like carbon monoxide, carbon dioxide, and carbon



**Md. Noyon Mia,** Deputy Director, District Environment Directorate Office, Gazipur

One of the primary causes of air pollution is the rapid and unplanned urbanisation that has taken place. The population density

and haphazard construction of buildings in Dhaka and surrounding cities have significantly contributed to this issue. The heavy traffic congestion on roads further exacerbates the problem. The continuous movement of vehicles damages the roads, releasing suspended particulate matter (SPM) into the air. In Gazipur, for instance, the SPM levels on roads exceed a thousand micrograms per cubic meter. Additionally, the presence of industries along these roads poses a challenge in measuring their individual SPM emissions accurately.

Nevertheless, we have made achievements in our efforts to combat air pollution. Working with the district administration, we have closed down many brick kilns. Our efforts to eliminate these brick kilns have yielded positive results.

Additionally, the BRT (Bus Rapid Transit) project in Gazipur has had a detrimental impact on the air quality in the area. Projects should be compliant, keeping the issue of air pollution in check.



Md. Wahidur Rahman, Motor Vehicle Inspector. Bangladesh Road Transport **Authority Gazipur** 

motorcycles weak engine performance are a major contributor to air pollution. To address

this issue, the Bangladesh Road Transport Authority (BRTA) has introduced an automated fitness testing process. Under the new system, individuals

visiting the VIC for fitness tests will undergo automated assessments. However, those who fail to appear for the test and possess fitness certificates older than 10 years will have their vehicle registrations cancelled.

Furthermore, we are collaborating with the district administrations to conduct mobile patrols to penalize offenders contributing to air pollution. Vehicle owners gets reminder of their responsibility through letters, which emphasize the economic lifespan of vehicles, with buses having a lifespan of 20 years and trucks having a lifespan of 25 years.

In addition to engines, fuel quality is also a significant contributor to pollution. Unburnt diesel in vehicle conversion chambers has the potential to pollute the environment. It is crucial to control exhaust emissions to mitigate this issue.



Badrunnahar Bristi. Child Representative, World Vision Bangladesh, Ershsardnagor, Tongi

In our locality, the drainage system is extremely inadequate, resulting in the overflow of waste onto the

streets during the rainy season. Walking becomes highly perilous during this time. As a consequence, we frequently experience skin diseases and asthma. Particularly concerning is the fact that younger children, on their way to school, often fall into these drains. Additionally, 90 percent of our latrines are unsafe, with waste directly flowing into the drains. This pollution not only affects the environment but also leads to the premature death of trees.

I earnestly urge our leaders to prioritize the creation of a livable environment for both our generation and the generations to come. It is crucial that steps are taken to improve the drainage system, ensure safe and sanitary latrines, and protect our surroundings.



Khalilur Rahman, Councilor, Ward No. 10, Gazipur City Corporation

Many mega development being projects are implemented in Gazipur, but they are experiencing significant delays, resulting

in severe pollution of the environment. It is evident that concrete particles are becoming airborne, mixing with the air. The presence of unfit vehicles also poses a significant threat as they contribute not only to air pollution but also generate excessive noise pollution. It is crucial that these issues are

effectively addressed, and we are prepared to work sincerely once we receive proper guidance and direction.



Hasan Yusuf Khan, General Secretary, Gazipur District Unit, Bangladesh Poribesh Andolon (BAPA)

World Health Organization (WHO) has established a standard of 5 µg/ m3 (annual average time) for

PM2.5 and 15 µg/m3 for PM10 as air pollution guidelines. However, the Bangladesh Air Pollution Control Rules 2022, Schedule 1, have increased the standard to 35 µg/m3 for PM2.5 and 50  $\mu$ g/m3 for PM10. This reversal is highly concerning, as other countries are lowering their standards while our country is moving in the opposite direction. We strongly urge the government to follow the WHO guidelines.

Furthermore, environmental considerations should be prioritized before establishing any new electric power stations. The maximum allowable sulfur content in diesel should be set at 50 ppm. Proper classification and emission limits for small industries that have a significant potential for pollution need to be clearly defined. If necessary, the introduction of a real-time monitoring system should be considered to ensure compliance with these standards.



Naznin Munni, Assignment Editor, DBC News

For the past seven to eight months, Bangladesh has maintained its unfortunate position as the most polluted country. Regrettably, there are no indications of this

situation improving, as the extent of pollution continues unabated. Despite engaging in discussions about this critical issue regularly, our efforts have yielded no fruitful implications.

Among the 64 districts, Gazipur stands out with the highest levels of air pollution. This alarming situation can be attributed to the presence of over 12,000 brickfields and 2,000 business factories within Gazipur. The existence of the BRTA projects for over a decade exacerbates the environmental crisis. If these large-scale construction projects persist for such extended periods, they create havoc in the environment.

Furthermore, it is disheartening to observe that our construction companies fail to adopt any precautionary measures to mitigate the haphazard pollution caused during their projects.



Nazmus Sakib Khan, Additional Police Super (Traffic), Gazipur

During the pandemic, observed improved air quality in our cities, including Dhaka, indicating that human movements

and transportation contribute to high air pollution. However, instead of restricting all movements, we should focus on addressing the causes. Switching to electric vehicles and promoting public transport over private vehicles can greatly reduce air pollution caused by the transportation sector.



Anisur Rahman, Deputy

Commissioner, Gazipur

To achieve the SDG goals, it is crucial to prioritize social environmental inclusion, protection, and economic development collectively.

In order to address air pollution effectively, we must first identify its sources and take preventive measures. In the case of Gazipur, solid waste management demands particular attention as it often contributes to air pollution. While there are 527 factories equipped with effluent treatment plants, we are yet to establish a proper monitoring mechanism for them. Additionally, the environment department should establish an air quality monitoring center in Gazipur to ensure effective

oversight.

To combat air pollution in Gazipur, it is imperative to establish strong partnerships. A coordinated plan for future industrialization in the area, ideally in designated economic zones, should be devised. The government's initiative of establishing 100 Export Processing Zones (EPZs) across the country presents an opportunity. If necessary, some industries in Gazipur could be relocated to these zones, taking into account the associated relocation costs.



A.K.M. Mozammel Haque, MP, The Minister for Liberation War Affairs

Enforcing effective monitoring of transport fitness is an immediate and crucial step to combat air pollution, particularly the

emission of black smoke. This measure will significantly reduce pollution levels. Encouragingly, the number of brick kilns has already witnessed a significant reduction, while the city corporation has acquired land for improved waste management. Additionally, addressing the drainage problem is a pressing need that should be prioritized. I kindly request the concerned authorities to swiftly take action on these critical issues.

However, demolishing the existing city structure is challenging. Instead, we should focus on accommodating necessary changes in a planned manner. Although preparing a master plan may not be difficult, the real challenge lies in implementing it effectively. Therefore, it is essential to involve local residents and representatives in the decisionmaking process before finalizing the master

The usage of polythene poses a grave threat to our environment. Developed countries have made significant progress in reducing polythene consumption, yet we have not achieved the same success. Urgent attention must be given to this issue. Furthermore, strict action needs to be taken against lead factories that are causing severe damage to the air and environment. Identifying these problems is a positive step, and now we must accelerate our interventions to bring about impactful change.



Tanjim Ferdous, In-charge of NGO and Foreign Missions at the Business Development Team, The Daily Star & Moderator of the session

In pursuit of a better lifestyle, haphazard urbanization and the proliferation of factories have taken place, leading to adverse

consequences. However, these advancements are accompanied by inadequate drainage systems and reliance on fossil fuels, resulting in persistent air pollution. The latest report from the World Health

Organization reveals that in Bangladesh alone, over 82,000 people, primarily children and the elderly, succumb to air pollution-related causes each year. This roundtable aims to explore the impact of air pollution on the lives of children and adults, with a specific focus on Gazipur, and discuss preventive measures.

## RECOMMENDATIONS

> Emphasize planned urbanization to ensure sustainable development and minimize pollution impacts.

➤ Strengthen collaboration and awareness programs across sectors to effectively address air pollution issues.

> Ensure the active operation of treatment plants in industries to effectively control and manage pollution.

> Implement cleaner technologies and enforce stricter standards for brick kilns to reduce emissions and pollution.

➤ Allocate an economic zone specifically for Gazipur to facilitate planned industrial development/

> Focus on addressing traffic congestion and improving road infrastructure to reduce vehicle emissions.

➤ Conduct mobile patrols and impose penalties on offenders violating air pollution regulations to deter non-compliance.

➤ Align air pollution standards with the guidelines set by the World Health Organization (WHO) for better air quality.

> Encourage environmental journalism to be more vigilant and prioritize public interest in reporting on air pollution issues.

> Ensure timely completion of mega development projects to minimize prolonged pollution impacts during construction phases.