

Are we aware of aluminium phosphide poisoning?

The lethal gas that may have caused the death of two siblings in Dhaka



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The tragic death of two siblings in the capital’s Bashundhara Residential Area, allegedly from pesticide poisoning, has yet again reminded us how cheap our lives can be in a country that has failed to ensure basic safety and security of its citizens. Sadly, news of unnatural deaths – in road crashes, fire incidents, gas explosions, etc – have become a regular part of our everyday lives. However, the fact that two children would have to die in the “safety” of their own home just because a pest control agency did not do its job properly is inconceivable.

Reportedly, Mobarak Hossain, the father of the two children – Shayan Mobarat Zahin, 15, an eighth-grader, and Shahir Mobarat Zayan, 9, a third-grader – hired a pest control agency to rid their home of cockroaches. The employees of the agency spread the pesticides in their house on June 2 and asked the family to stay out of the house for two to three hours. But the family decided to take extra precaution and returned to the house after about 10 hours. Yet, all five family members fell sick soon after arriving home and inhaling the toxic fumes. As the state of the two children deteriorated, they had to be admitted to a private hospital, where both of them passed away.

I was horrified at the news, and the first question that came to my mind was: did the children die of aluminium phosphide poisoning? Aluminum phosphide is a chemical that emits a poisonous gas that not only kills insects, but is also dangerous for humans. A local news agency later reported that the pest control company had used

aluminium phosphide tablets as a pesticide in the house, which likely led to the death of the two children.

I first learned about this life-threatening chemical a few years ago, when a relative was looking for a solution to bed bugs and had hired a pest control agency to get rid of the insects from his house. The agency

which the countries have implemented stricter regulations to control the use of this chemical. The UAE banned pesticides containing aluminium phosphide for public use back in 2009.

But aluminium phosphide is available in the form of tablets in Bangladesh, largely being sold by street vendors and used by

my commute to my office in the capital’s Farmgate area, I regularly come across street vendors advertising and selling these tablets (among other pesticides) to people, under the very noses of law enforcers. Once, I asked a street vendor how to use these tablets. He gave me specific directions to keep the tablet in a room and stay out of the

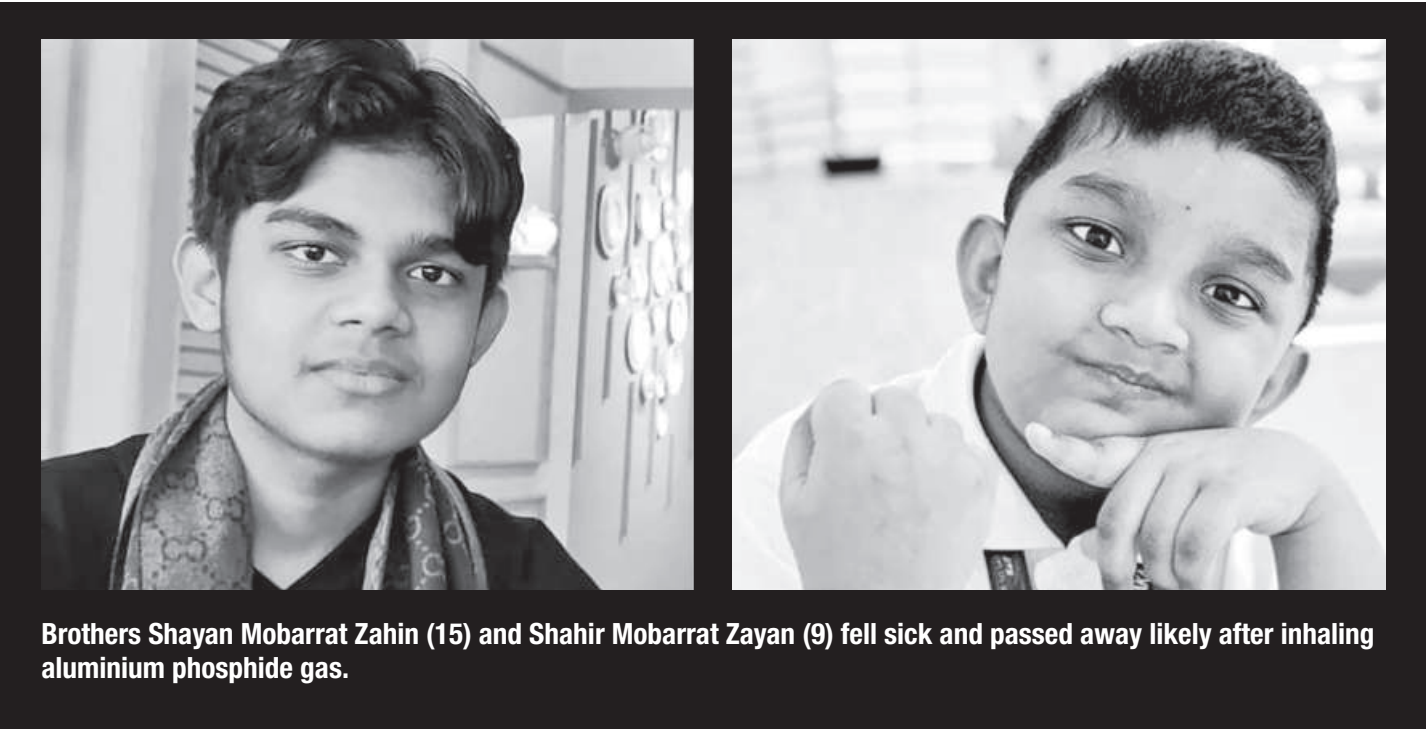
antidote for those affected by it? Reportedly, the company that used the chemical in the Bashundhara house had told the residents to enter the house two to three hours after the pesticide had been spread – while the gas was still present in the house. This clearly indicates the company’s lack of knowledge about the chemicals they are using in fumigating households. Their incompetence and negligence have now possibly caused the deaths of two young children.

According to a BARI official, aluminium phosphide tablets are not banned in the country, but their use is restricted. These tablets are basically meant for use in warehouses to protect foodgrains from insects. They should never be used for household pest control. How, then, are the pest control agencies using them?

Unfortunately, aluminium phosphide is not the only pesticide that is being sold openly in the city. According to Dr Syeda Sultana Razia, a professor at the department of chemical engineering in Buet, many other harmful insecticides which should only be used for pest control in agricultural fields are being sold in the capital’s markets, without any monitoring from the authorities.

The onus is now on the government to look into the issue and take the required measures to restrict the sale of these lethal chemicals in the country. It is also high time that government authorities learned about pest control from the experiences of developed nations and formulated strict regulations regarding the use of such dangerous chemicals in households. Otherwise, we might see more such deaths from pesticide poisoning in the future.

Since the father of the deceased children has filed a case against the pest control company, it is up to the police now to properly investigate the incident and bring those responsible for the children’s death to justice. Such acts of negligence must not go unpunished.



Brothers Shayan Mobarat Zahin (15) and Shahir Mobarat Zayan (9) fell sick and passed away likely after inhaling aluminium phosphide gas.

used some tablets to kill the bugs while the entire family was away for a whole day. And this did result in their house being free of bed bugs from thereon.

However, after a brief internet search, I came across news of how people across the world, including in the US, UAE, Thailand, and India, had died after inhaling this poisonous gas, following

pest control companies.

Reportedly, if aluminium phosphide gas is inhaled by humans, it can prove fatal within hours. And if not treated properly, a majority of the affected may die within 24 hours. The chemical is particularly lethal for children and the elderly.

However, in Bangladesh, it is sold openly for pest control purposes. During

house for at least two days. It is supposed to “work like magic.”

Forget about street vendors; professional pest control organisations in Dhaka have been using this lethal chemical for years. The question is: are they using it with approval from the government? Do they have the necessary knowledge and training to safely use this highly toxic pesticide, which has no

How well can we deal with LANDSLIDES?



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Although landslides are a natural occurrence due to rainfall, recent landslides in Bangladesh have primarily been triggered by human activities. In 1968, landslides were first observed due to damage to the then Kaptai-Chittagong road. The five hilly districts of Chattogram division – Bandarban, Chattogram, Cox’s Bazar, Khagrachhari, and Rangamati – were significantly affected.

Research has shown that between 1990 and 2010, deforestation took place in nearly 1,130 sq-km of the five hilly districts, and approximately 420 sq-km of land has been transformed into urban areas, indicating extensive hill-cutting.

Notable reasons behind landslides in Bangladesh include construction of settlements without proper planning, cutting down of forests and trees, construction of unplanned settlements on risky slopes, conversion of hills into plots and flats, inappropriate forest management, lack of appropriate cultural knowledge and skills to build houses on hills, population pressure, unplanned urbanisation, extraction of stones from hilly streams and foothills, and lack of coordination among relevant government, autonomous, and non-governmental institutions.

Usually, two types of communities are found on the hills of Bangladesh. One group consists of Indigenous communities – who have lived in the mountains for centuries. The second group consists of local Bangalees, who have lived in these hills for almost a generation. Various information and evidence analyses show that the settlers, mainly Bangalees, face landslide risks. Bangalees living in densely populated urbanised areas (such as upazila sadar or large municipalities) are mainly from extremely poor sections. Due to a lack of adequate civic facilities, they are forced to live on risky slopes. Although most of the hills in Bangladesh are considered government-owned land, and cutting hills is prohibited, a specific class of people are haphazardly settling



The Chattogram hill districts are very likely to face catastrophic landslides during the monsoon seasons. Unfortunately, Bangladesh is not yet prepared to deal with landslide disasters.

FILE PHOTO: STAR/ANVIL CHAKMA/MOHAMMAD ALI JINNAT

shopkeepers, and small business owners – live in rented houses. Hundreds of thousands of people live at risk of landslides on these hills and regularly face various economic and social problems.

One noteworthy aspect of these hills is the cultural differences between the Bangalees and the Indigenous communities. The Indigenous people have traditional and deep-rooted cultural knowledge about which slope of the hills to build their homes on and what kind of materials to use. They also know how to cultivate and earn a living on the mountains and how to survive in a challenging environment. Their houses are built on bamboo stilts, and the roofs are thatched using bamboo leaves. These homes are not designed to withstand severe weather conditions, but are resilient against landslides. However, in recent years, the Chittagong Hill Tract (CHT) region has become vulnerable to landslides due to changes in Indigenous

lifestyle and agricultural practices, illegal logging and stone extraction, construction of roads without sufficient geological surveys and slope stabilisation measures, promotion of unsustainable tourism, and lack of ecological restoration activities.

In the three hill tract districts, landslides primarily occur in road-cut and hill-cut sections. Communities living

the monsoon seasons. Unfortunately, Bangladesh is not yet prepared to deal with landslide disasters. We do not even have national or regional landslide early warning systems (LEWS). Some organisations and academic institutions are trying to develop and introduce the country’s first LEWS. However, those systems or technologies are still ineffective or have not gone through scientific validation and recalibration.

Landslides should be categorised as major human-made disasters. Detailed scientific research should be conducted on each hill’s geographical, geological, topographical, geotechnical, soil, and land use aspects in those hilly districts. Using scientific methods, landslide hazard and risk maps for each upazila should be prepared to identify risky hills and communities at risk of landslides. Also, an effective LEWS should be introduced by integrating all four major components – risk knowledge, forecasting systems, dissemination and communication, and preparedness and response capacities. This will enable people living in vulnerable areas to evacuate to safe places days in advance of a potential landslide disaster.

We also need to assess the economic and social status of those living on the hills, with regular surveys conducted to analyse their dynamic social vulnerability. Furthermore, high-risk hill-dwelling populations in particular should be evacuated to shelters during the rainy season every year. Provisions for landslide shelters should be created, and vulnerable people should be given temporary residence there during periods of extreme rainfall. A comprehensive risk-sensitive land use plan should be produced and implemented for the hill districts in Chattogram, and the northeastern Sylhet region. The plan should include community-friendly anticipatory actions and a forecast-based financing mechanism, and promote nature-based solutions to tackle landslide disasters.

Finally, a permanent and high-level landslide task force should be formed under the leadership of the Ministry of Disaster Management and Relief, involving all key stakeholders such as the Bangladesh Meteorological Department, Bangladesh Space Research and Remote Sensing Organization, Geological Survey of Bangladesh, and other government, autonomous, non-government and intergovernmental organisations, community leaders, and the general public.

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BY THOMAS JOSEPH

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