

WORLD ENVIRONMENT DAY

Living in the land of dying rivers



OF MAGIC
& MADNESS

Badiuzzaman Bay
is assistant editor at
The Daily Star.

BADIUZZAMAN BAY

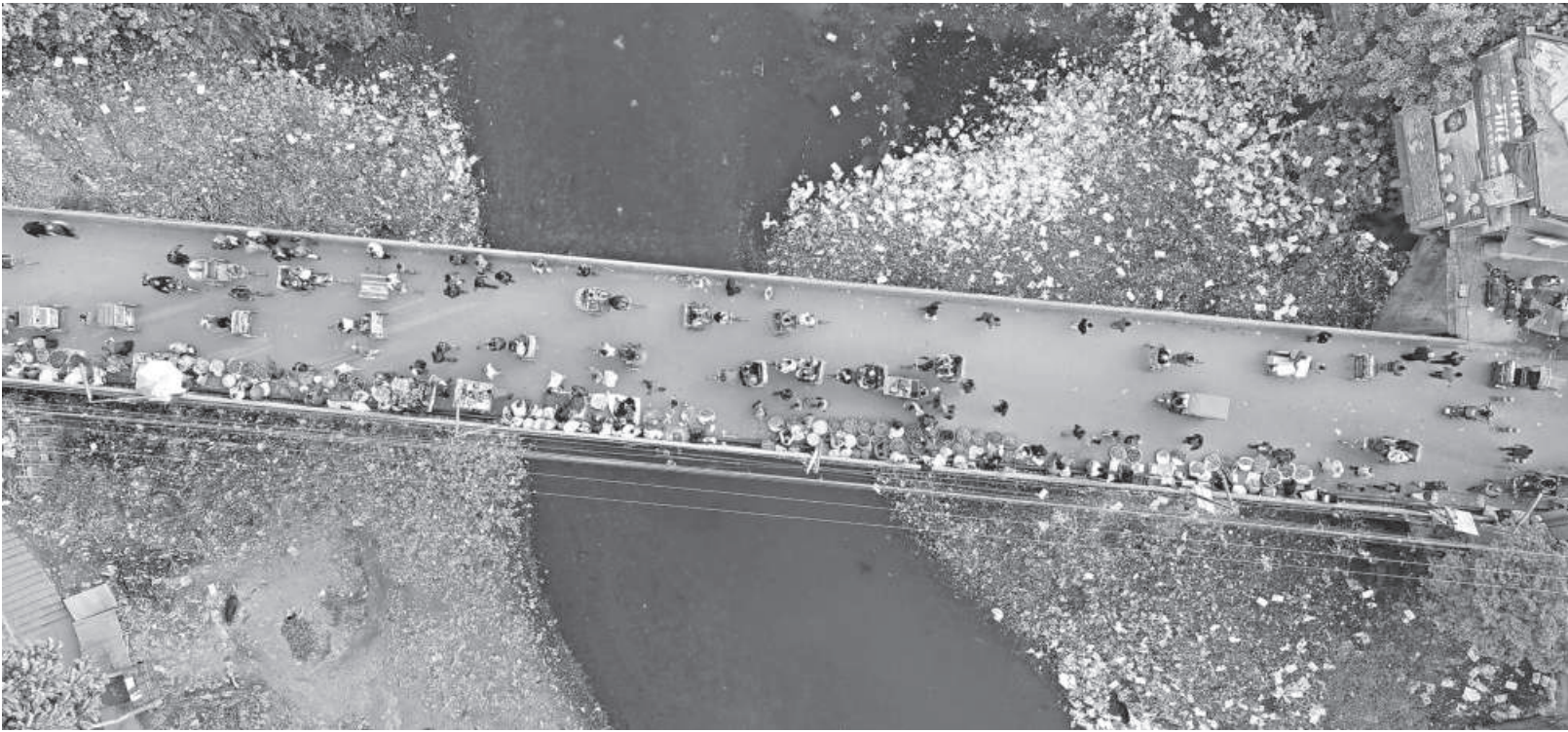
Don't look for rivers *in* rivers in Bangladesh.

For here, in this development wasteland, rivers don't live; they merely exist. They exist as relics of their halcyon days when rivers were truly wild, mysterious, free – or as a side character in their own story, as told through poetry and music. They exist in inherited nostalgia. They exist to serve, not to inspire imagination. Today, going through eponymous titles like Bibhutibhushan's *Ichhamati*, Manik Bandyopadhyay's *Padma Nadir Majhi*, Adwaita Mallabharman's *Titash Ekti Nadir Naam*, Samresh Basu's *Ganga* or Debesh Roy's *Teesta Parer Brittanita* feels like walking past a film reel – each river a new negative, a wondrous revelation, but each also a cautionary tale: that nature may nurture us, but it needs nurturing, too. Like everything we hold dear.

This is what I tell myself every time I come across a “dying” or “dead” river these days. And I wonder how long we can hold on to the images of what rivers once were before the only image that remains of them is a natural has-been, decayed through neglect and overuse.

For many of us, images are a vital part of our relationship with rivers. They hugely influence our perception of how we connect to them beyond all the trade, transport, and agriculture that bound us together through the centuries. When Hemanta Mukherjee, in his song “*O Nodire*”, asks, “Say, oh river, where is your abode? Is there no end to your journey?” – or “You destroy one bank and build another, but what do you do for the bankside people you leave behind in ruins?” – it's not just curiosity driving these questions, it's also a deep sense of connection with something we at once feared and felt for. The fear is still there in some form. But the feeling is all but gone, thanks to the shifting images and realities.

Part of the reason why the 2019 High Court verdict that granted rivers the legal status of “living entities” seemed so special was because of its potential to reignite this feeling, from one living entity to another. As legal precedents go, this was a “historic” judgment. It wasn't meant to provoke



Bangladesh has essentially turned into a Land of Dying Rivers, in an astonishing shift for a nation that once ascribed motherly value to its rivers, endearingly calling itself “nadimatrik.”

FILE PHOTO: MOSTAFA SHABUJ

nostalgia for the good ol' days of undammed, unbridged rivers. It was more rooted in reality, in a vision that development, while inevitable, does not have to come at the cost of rivers. It envisioned a world in which they would be regarded as legal persons, treated as free and with respect, and have certain rights to be protected by the state. “Killing rivers” used to be a metaphorical expression until they were granted this status, which made it more literal, with a shock value attached to it.

Four years on, that semantic change, and the founding of a largely ceremonial National River Conservation Commission as the “guardian” of rivers, remain the only outcomes of this verdict. Its remarkable lack of impact, as evidenced by the deteriorating state of our rivers, can only be equalled by that of other court judgments on the conservation of forests and hills. In hindsight, the significance of the

history with rivers, they didn't need a superficial recognition in the first place. However you see this verdict today, the truth is, it has failed to prevent what environmentalists rightly called “rivercide.”

Bangladesh has about 220 small and large rivers, and 90 percent of them are said to be suffering from pollution and encroachment. More than 43 rivers dried up between 2000 and 2020. According to the Rivers and Delta Research Centre (RDRC), which unveiled the findings of a year-long study in March, at least 56 rivers flowing through different parts of the country are suffering from “extreme pollution” during the lean period, when natural flows of rivers are at their lowest. Even rivers that became household names through famous books have not been spared. A quick Google search will tell you: the once-mighty Titash is now a veritable canal, with many illegally built structures dotting the riverside; the Ichhamati

names now reduced to a harsh, prosaic existence. These rivers, like the ones before them, are being robbed of life, one aquatic species at a time. The same suffocating situation prevails at the Khowai, which flows through Habiganj, or the Mayur, which flows through Khulna, or the rivers surrounding Dhaka. Tonnes of household and industrial waste are dumped into them every day, untreated and unchecked, while marauding encroachers, both individuals and institutions, including those run by the state, go about building on dried-up lands, pushing further and further beyond the demarcation pillars in some cases. Add to that the mining of sand, brickfields on riverbanks, greasy pollutants from motorised boats, siltation – all contributing to their progressively unhealthy aquatic state. It's not just the life of rivers, canals, or wetlands that is being put to the test as a result. There are also

“nadimatrik.”

True, the attempt to control rivers has been there from time immemorial. It was there during the rule of the British, who sought to control the rough waters of Bengal through building road-rail networks. It was there during the rule of Pakistan, which undertook development projects. Their initiatives, in some cases, proved to be disastrous. Ruling or utilising rivers – just like hills, forests, and seas – has been an enduring pursuit of humanity. In the monsoon, you had encroaching rivers; in the summer, you had a pushback from encroaching men.

But what we are witnessing in today's Bangladesh is not ruling (“*nadi shashon*”), it is bullying (“*nadi shoshon*”). It's not driven just by necessity, but also greed, a general disregard for the sanctity of life, and a reckless can-doism. Nowhere else will you hear a minister claim that we don't need wide rivers, and that

we have to narrow them down and recover land from the riverbanks to build resorts and roads and implement other forms of development! How can anyone, let alone a top government official, think like that? At the current rate, it may not be long before the country becomes known for having led a unique trend: Once a river, NOT always a river.

Perhaps this was bound to happen. Just imagine: over the last few decades, the more we urbanised, the more we sought to exploit and monetise rivers. The more our population grew, the more we came to treasure our land (and riverbed) as real estate. So, we put unwieldy dams around rivers, hollowed them out in search of sand, canalised and diverted them, constricted their navigation through encroachment, and in many cases, turned them into dumping zones. Anomalies and warnings abound simultaneously. “A dumping zone called Turag” – a newspaper headline screams, as if to parody the oft-quoted *Titash Ekti Nadir Naam* (A river called Titash). What was once a symbiotic relationship worthy of immortalisation in poetry, music and literature has now turned into an abusive relationship, with 170 million rudderless people wedged into a sparse landmass, all somehow complicit in the slow decay or death of their rivers.

All somehow ready to accept that their cities turning into heat islands, their rivers being robbed of aquatic species, their waters being contaminated, their fishes being filled with microplastics, their ponds and lakes disappearing, their haors being flooded because of the rapid spread of the built environment, or their children growing up without any connection with their riverine ancestry are not a big enough price to pay in their pursuit of development.

We must acknowledge, however, that there have been attempts to reverse this cycle of destruction. There is no dearth of policies, regulations, and responsible agencies in the country. Eviction and excavation projects to free rivers and riverbanks are routinely heard of. But these attempts are so few, so poorly planned, and so uncoordinated that any resultant effect fizzles out before it can be visible.

Clearly, we need a critical rethink about our whole approach to rivers and river management.

This is a revised and expanded version of an article originally published in the Jamini magazine.

The time to beat plastic pollution is now or never

Muhammad Muktadirul Islam Khan,
a development consultant, is currently studying at the
Department of Geology, Environment and Sustainability
(GES) of Hofstra University in New York.

MUHAMMAD MUKTADIRUL
ISLAM KHAN

Plastics have become an integral part of our life. The world purchases around one million plastic bottles every minute and uses one billion plastic bags every hour. Low cost, durability, light weight, and ease of processing have made plastics extremely attractive to both individual consumers and industries.

While there may be some social benefits of using plastic, these come at the cost of our environment, severely threatening humanity and biodiversity. While the efforts to reduce plastic pollution by governments, civil societies, and businesses are encouraging, there is still a long way to go as the amount of plastic waste is rapidly increasing. This year's World Environment Day is essentially a call for widespread action to beat plastic pollution and save humanity, wildlife, and our entire planet.

Plastic is a potential threat to life and is now considered the most pressing environmental concern. Almost half of all plastic products are intended to be single-use, and of the around 380 million tonnes of plastic produced each year globally, only nine percent is recycled. A report published by the United Nations Environment Programme (UNEP) in 2022 says around three-fourths of plastic products worldwide end up in landfills or natural surroundings. Plastic waste takes a long time to decompose as the materials used in the products do not exist in our environment, and there are no naturally occurring organisms that can break them down effectively. The time taken for plastic products to decompose can differ depending on their type and the condition of exposure. For example, a plastic bag can decompose in 10 to 1,000 years, while a plastic bottle, an essential part of our daily life, can take up to 450 years to degrade. Untreated plastic waste also adds toxic substances to our environment.

Plastic is also impacting the atmospheric condition of the Earth's system. Almost 98 percent of plastic products are produced using fossil fuels, resulting in greenhouse gas (GHG) emissions, a leading contributor to the global climate crisis.

The Organization for Economic Co-operation and Development (OECD) reported that plastic currently accounts for 3.4 percent of the world's carbon budget and is projected to increase by five times in the next 20 years. A 2022 study identified that tiny particles of plastic can travel thousands of miles and affect the formation of clouds, and can impact temperature, rainfall, and even long-term climatic changes.

Bangladesh, too, is experiencing a spike in plastic production, which plays a crucial role in the nation's overall economy. It is the 12th highest source of income through export and is widely used in our RMG sector, healthcare, and automotive industries. In FY 2017-18, the country exported plastic and plastic-made products worth \$1 billion. And almost 80 percent of the local plastic demand, worth \$2.5 billion as of 2017, is met with domestic production. According to Bangladesh Investment Development Authority (BIDA), there are 5,000 plastic enterprises in Bangladesh, and 98 percent of these are SMEs. Plastic products have gained popularity over time both in local and global markets, and if the current trend of production is sustained, Bangladesh expects to earn \$115.10 billion from plastic export by the end of 2023.

However, the country is also battling plastic pollution. Alongside the growing nature of our economy, the per capita use of plastic in urban areas has tripled in the last 15 years. Although the per capita consumption in Bangladesh is less than that in many other developing and neighbouring nations, the mismanagement of plastic waste is what has led to Bangladesh ranking 10th globally in mismanaging plastic waste. It is also responsible for 2.4 percent of the global mismanaged plastic waste.

Unsustainably managing plastic waste is a growing concern in Bangladesh. The country generates around 3,000 tonnes of plastic waste every day. In Dhaka, around 14

million pieces of polyethylene bags are used daily. Most plastic products are discarded after the first use, and due to improper management, they pile up on the roads, in drains, canals, rivers, and open landfills.

As a riverine delta, our geographic characteristic plays a huge role in transporting land-based plastic waste to the ocean. An estimation shows that every day, around 73,000 tonnes of plastic waste ends up in the Bay of Bengal through the Padma, Jamuna, and Meghna rivers, polluting our aquatic ecosystem.



Plastic waste in the environment is a potential threat to life and is considered the most pressing environmental concern.

PHOTO: STAR/FILE

Plastic products can never fully decompose, and can only be reduced to smaller particles. The tiny particles also end up in the human body and incur severe health consequences. Meanwhile, burning plastic items (which is a common practice in Bangladesh) releases toxic gases and particles into the air. The Country and Climate Development Report published by the World Bank Group in 2022 says that around 32 percent of human deaths every year are associated with environmental

degradation, specifically outdoor air pollution, inadequate water, sanitation, and hygiene standards, and lead exposure among adults linked with plastic pollution. The estimated annual loss for environmental health amounted to Tk 4.4 trillion in 2019. Plastic waste is also responsible for clogging drainage systems, and developing breeding grounds for mosquitoes that result in incidents of vector-borne diseases such as dengue, chikungunya, and malaria.

Bangladesh has taken several bold steps by adopting legislative and policy



arrangements to reduce plastic pollution. We are the first country in the world that banned plastic shopping bags through a nationwide cut-off date on January 1, 2002. The country adopted the Jute Packaging Act in 2010, which promotes alternative packaging for six essential items, including rice, fertiliser, and paddy. In 2020, a High Court directive also banned single-use plastic in coastal areas, and in hotels and motels across the country. But all these measures have failed due to lenient

enforcement. Use of banned plastic items and mismanagement of plastic waste is seen all over the country. Our plastic market is anticipating significant growth and as such, plastic waste generation will also increase in volume, and the crisis will only intensify in the coming years.

Recycling plastic waste is an economically and environmentally viable way to address plastic pollution, though the progress of this is not significant in Bangladesh. In 2020, the nation consumed 977,000 tonnes of plastic and recycled only one-third of the total. In Dhaka, around 646 tonnes of plastic waste is generated every day and only 37.2 percent is recycled. A large amount of plastic waste remains in the environment. High costs associated with recycling, lack of technology, and lack of public awareness about the consequences of plastic pollution are key factors that hinder recycling in Bangladesh.

It is irrefutable that widespread access to plastic has benefited humans. But at the same time, mismanagement of plastic has left long-lasting environmental impacts. Alongside the rapid economic growth of Bangladesh, the consumption of plastic is likely to experience a spike in the coming years, resulting in more degradation of environmental bodies, and affecting humans and other living creatures.

Despite our country's strides in policy and legislative arrangements, the effective implementation of the policies and laws is still a far cry. Besides the need for effective regulation and enforcement initiatives from the government, individual-level awareness is also crucial in addressing this problem. A strong focus on the circular use of plastic, based on the 3R strategy (reduce, reuse, recycle) will result positively in creating new value chains of plastic, green skills, jobs, and innovative products, while also addressing social and environmental challenges that occur due to our widespread use of plastic. More research and knowledge processes, as well as engagement of stakeholders in multisectoral actions, will be driving factors in successfully curbing plastic pollution. Now is the time to act together and save our world from this impending crisis.