

Conserving surface water is a dire necessity



Md. ASADULLAH KHAN

now, exacerbated by the construction of Farakka barrage over the river Ganga in the Indian territory. Ever since the completion of the barrage, the stress is showing intensity. Precisely, true, urban Bangladesh is screaming for water and with water table going down and down, the situation is set to deteriorate further.

How did this situation come to such a sorry pass? The reason for the country's growing thirst, says conventional wisdom, is the rate at which its population is increasing.

in the 1980s but most municipalities and corporations focused on the immediate, tapping ground water resources in and around the cities. Expectedly, the pressure on ground water has shown up. Tubewells are now routinely dug up at a depth of over 100m and above in cities and regions starting from Dhaka to Rajshahi to Khulna. In a word water is being mined and pumps are being sunk 10 to 20 metres deeper every year. Desperate dwellers not only in urban areas but even in villages are forced to buy water from vans

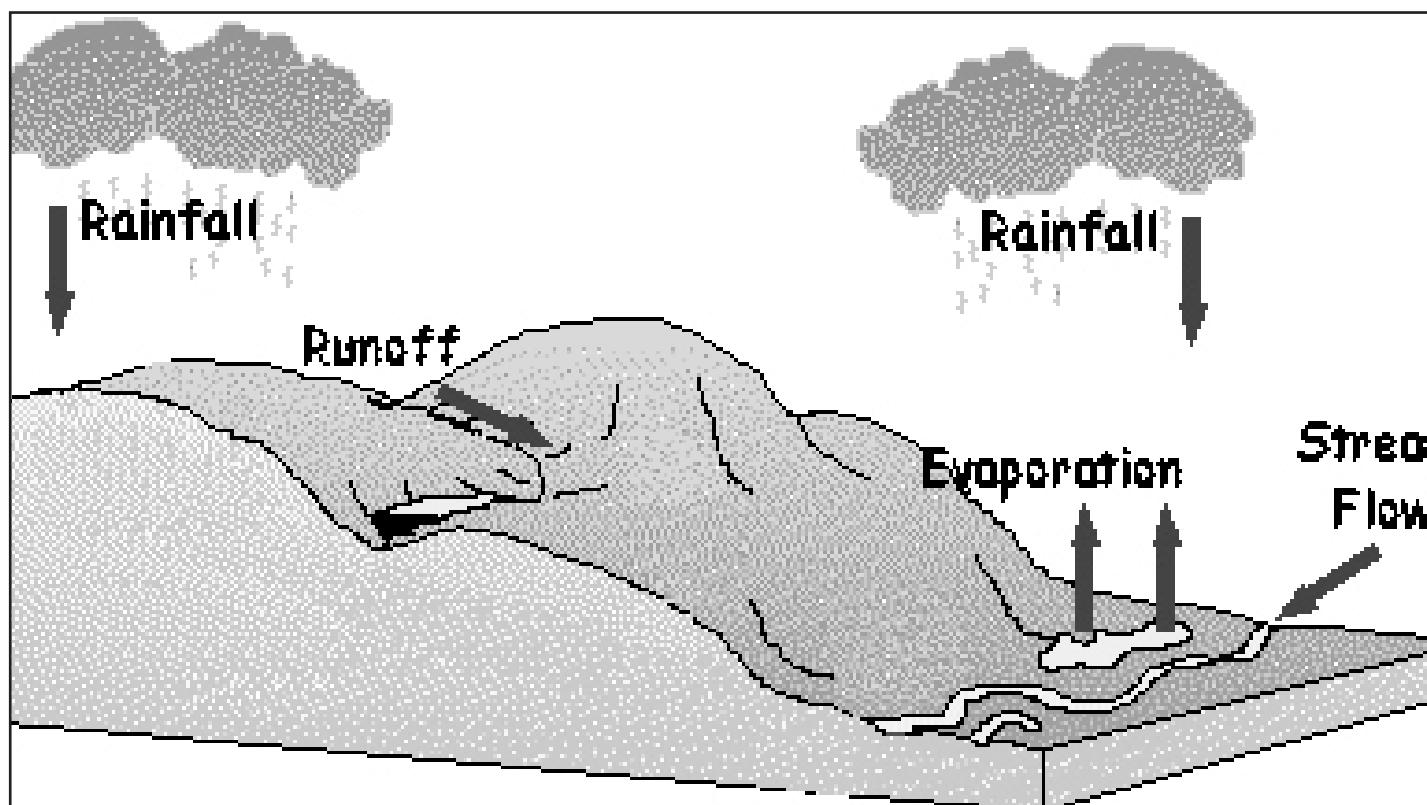
dried up due to inadequate flow from the main water bodies. Other than anything that is not noticeable, the result has been a drastic depletion in the water table, evident by the fact that borewells in the city have to go deeper and deeper.

The dismal statistics are only a part of the story. To save the city dwellers from the sufferings of water-logging at the slightest rainfall or rush of flood water, it has become imperative on the part of the government to constitute an independent Lake/Watershed Development

reason that the visiting World Bank experts have warned time and again that unless measures are taken well ahead Dhaka will turn into a dead city by the year 2020.

Known to be the barometer of the ecological health of a city, water bodies also determine its climate. As experts explain, they help control humidity and temperature levels, recharge aquifers and also act as instruments of rainwater harvesting. With a little initiative, commitment and imagination, these lakes could be formed into a hydrological chain

Recalling the fact that water, not oil is the most precious fluid in our lives, we must take all out efforts to conserve surface water that will help recharging the aquifers. If we run short of oil and other fossil fuels, we can use alternative energy sources. But if we have no clean potable water, we are doomed.



While it may be one of the reasons, Bangladesh's water crisis is also the culmination of myopic planning, muddled policies and misguided perceptions. As cities grew and towns sprouted, no thought was paid to the emerging mismatch between demand and supply. In the quest for food security, groundwater was pushed as a solution; it was cheaper and quicker while storage and distribution projects were neglected. With the race for industrialisation having no checks on wasteful technology and pollution of water resources, industry continues to be the biggest polluter along with pesticide/fertiliser-ridden discharge from fields. Even if most cities are based on river banks, the rapid pace of urbanisation has led to the drying up of traditional water sources like tanks and lakes.

The first signs of population boom and water stress were visible ferrying it in water-starved areas. Worse, conservation has not figured in our scheme of things – neither directly through steps like water harvesting nor indirectly through restoration of canals, lakes and water sheds that have been encroached upon by land grabbers.

It is difficult to think of Baridhara, Gulshan, Dhamondi and Uttara areas as being anything other than what it is today: a veritable jungle residential apartment blocks teeming with English medium schools, coaching centers, private universities and clinics. There were once lakes and canals within and running through the city zones like Segunbagicha, Purana Paltan, Gandaria, Narinda, Rampura and Bashabo. To put a count to it, about 250 sq. km of watersheds around the city surrounded by the rivers Buriganga and Shitalakhy have either been encroached upon or

Authority most appropriately under the Prime Minister comprising experts from BUET, WASA, RAJUK, Dhaka City Corporation and Ministry of Water Resources. Such authority, if constituted, should include the DND area where 20 lakh people, permanent victims of water logging, have been leading sub-human existence for years, in its jurisdiction.

The immediate task of the authority would be to carry out efforts to boost water table in Dhaka city and its adjoining areas. This should be an autonomous body for the protection, conservation, restoration, regeneration and integrated development of the lakes, watersheds and rivers like the Buriganga, Shitalakhy, Balu, Turag and many other lost canals. To cite an instance, in the Indian city of Bangalore, such an authority, recently constituted under the Department of Environment, has been working to halt encroachment of water bodies by land grabbers. Bangalore woke up to the loss of its wetlands and got down to restoring the city's 600 odd lakes. The immediate task would also be to identify such water bodies as well as to recover those already filled up illegally for recharging, by draining out the poisonous soup and blocking the sewage lines connecting them. Such authority should be invested with fund and responsibility to clean up all such lakes in Gulshan, Baridhara, Uttara and Dhamondi. Needless to mention Dhaka WASA has to find out ways and means to lay sewage pipes and link it to a treatment plant that it must construct to save the city dwellers from the growing load of pollution and sewage that will increase at least five times the present output by the year 2020 when the population will jump to 350 million as some demographic data by World Bank sources reveal. And that's the

and during monsoon, surplus water from the upstream lake could be flowed into the next lake. Sadly, rapid urbanisation has led to the loss of wetlands. The biggest problem has been encroachment of and disposal of untreated sewage into the lakes and water bodies anywhere and everywhere. Studies have revealed that these lakes and water bodies have become full fledged sinks for domestic sewage, effluents from industries and agricultural run off of silt and pesticides that are wrecking havoc on the ecosystem.

The process of cleaning and recharging may undoubtedly be a long drawn one. The first step is to identify the sources and entry points of sewage discharge into the lakes and divert it to some suitable place for safe disposal. It is worth mentioning here that under Indian government's National Lake Conservation Project, the LDA (Lake Development Authority) has cleaned up in just about a year 12 odd lakes. One of Bangalore's biggest lakes – the 50 hectare Ulsoor – has been drained out and sewage lines have been blocked. With funds from the donor agencies other than the government itself, Bangalore Water Supply and Sewerage Board has started laying pipes leading to the treatment plant. People conversant with the sewage disposal practices know the steps to be followed before the sewage enters into the treatment plant. Catch-water drains will have to be built to collect water runoff. That done, the water has to be purified using hydrophytic plants that absorb dissolved pollutants and toxins. Desilting and removing accumulated organic sludge and sediments from lake bed are just as important.

What happened in Bangalore was that in 1995 a sudden rise in the death of freshwater fish in lakes like Sankey and Lalbagh sounded an

alarm and the government then took a comprehensive plan for restoration of such lakes. Unhappily in our country mass death of fish in the Baridhara-Gulshan lake in 2002 could not sensitise our administration to look for restoration of these water bodies that other than being an aesthetic and ecological utility could be a vast source of poor man's protein. Like the one that our neighbouring countries have taken up, the government here should now be considering the modalities of raising external and internal funds on the lines of the World Bank aided programme for integrated country-wide tank development for irrigation. Such development work can fruitfully be done when governmental effort combines with individual civic initiatives.

The city's road beautification activity initiated and pioneered by the corporates like banks, big businesses and multi-national corporations is an example as to how such initiatives could foster development. But alas! Dhaka city roads do not start from the Zia International Airport and end up at the Sonargaon Hotel crossing. As for the present job of lake development and restoration, it may also involve corporates as guardians and key stakeholders of lakes. It is a strategy that has worked in Ulsoor where the Madras Engineering Group is the guardian. With indifference, negligence and inaction galore, Uttara lake, a vast natural water body almost 5 km in length and 400m wide is destined to disappear. It still exists even if by name but it is a cesspool of blackish stagnant water just working as a giant sewer. The lake's poisoned water now symbolises not life but death. Raw sewage combined with toxins, effluents in the form of hazardous chemicals and garbage are being discharged into this lake indiscriminately without anybody noticing the dire consequences that pose as serious threat to the health of the residents, especially the children living close to the lake.

The squalor and dirty business that we see here are result of a complete breakdown in urban planning. It is also the result of everyone closing their eyes to the importance of town planning and city corporation activities. It should be brought home to all involved in governance, planning and health care that air, land and water are three precious natural resources considered vital for maintaining health and improving the quality of life. Recalling the fact that water, not oil is the most precious fluid in our lives, we must take all out efforts to conserve surface water that will help recharging the aquifers. If we run short of oil and other fossil fuels, we can use alternative energy sources. But if we have no clean potable water, we are doomed.

Md. Asadullah Khan is a former teacher of physics and Controller of Examinations, BUET.

Dwindling fish species

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SYED SHAMIM FARUK

It is hard to imagine that even in the second half of the previous century about 207 different species of fish swarmed the rivers and water bodies of this land. In a span of half a century as many as 54 of these species have either become extinct or are on the verge of extinction and there is no information on at least 56 others, presumed to have also become extinct. Many of our familiar fishes like chapla, bata, rita, sarputi, sweet water pangash, bashpata, pabda, are by now either have gone forever or become very rare.

A study carried out by the world conservation union (IUCN) has also confirmed the above, supporting the view that drastic preservation and protection measures are required to safeguard the sweet water fishes of Bangladesh.

From time immemorial and with the first recorded food habit of the Bengali race the words 'Bangali' and 'fish' has become almost synonymous. Even today, despite a booming population and dwindling stock of fish, the majority of us still think so, and those who can afford go for at least one meal a day with fish definitely on the menu.

There was a time when the rivers, ponds, haors, canals, and water bodies were so very opulent in fish. But alas not so anymore. The rapid growth of human population and its impact has led to the dwindling of fish population. Bangladesh has the highest density of population over a square kilometer among the nations of the world and its effect on the surrounding habitat and natural resources has been mind boggling. Geographically Bangladesh is a deltaic region with rivers and water outlets crisscrossing the land. Almost every year during monsoon and thereafter the plains

remain submerged by water. A large part of the population lives near the rivers. Historically the major source of livelihood of this population has been fishing. The gradual boom in the size of population resulting in human encroachment in effect has squeezed the living space of fish population. Indiscriminate fishing to feed an ever growing population, pollution of rivers and water bodies by human and industrial wastes and apathy of the population towards fish stock are largely contributing to its decay.

In recent times efforts have been made to breed, cross breed and cultivate fish artificially acquiring ponds and water bodies and specifically designing them for such purpose. Efforts have also been made to culture variety of fish species importing from Thailand, Hong Kong, Pakistan, Nepal, China etc. Some of them were adapted successfully and a few of them could not survive. But the efforts have been largely impaired by the above mentioned factors.

We must stop human encroachment on living spaces of the fish, stop polluting the waters of rivers and water bodies, refrain from indiscriminate fishing of small fries and introduce scientific method for breeding and conservation of our native sweetwater fish species.

If we do not change our habits and lifestyles and seriously think for the conservation of one of our major sources of delicacy and nutrition, then there is every possibility that our posterity will never see many of the fish species which in a way has been the symbol of Bengali heritage, culture and food-habit.

Syed Shamim Faruk is a conservation activist.

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