

For saving the city water bodies



Md. ASADULLAH KHAN

Worsening civic and environmental conditions and lack of civic amenities have nudged citizens across the region out of their slumber. With Uttara Association, the central body representing sector Kalyan Samities, as the nodal agency, 'Uttara Lake Bachao Andolan' committee formed in December, 2005 have launched massive awareness campaign to jolt communities and public leaders to action. Could there be someone from the industrial conglomerates, banks, business community, NGOs and public leaders who would come forward to save these water bodies, the essence of life in a polluted city? If RAJUK, Dhaka City Corporation and WASA, the trio individually or together cannot cope with the enormous task with their own resources then they should invite such public participation, themselves remaining as facilitators, as they did for the beautification work of the city on the eve of the SAARC Summit.

I f a city has a memory, then the Thames would be always a part of the London's eternal psyche. For Paris, so would the Seine be. For Toronto, the lake Ontario, for Chicago, the lake Michigan, and for New York, the Hudson with its slow underflow. Great cities on great rivers and water bodies. And for Dhaka, there is the river Buriganga. But rarely does anyone living in Dhaka city and its satellite towns realise that it has rivers like Buriganga, Shitalakhy and some lakes around. These water bodies refresh the mind of the people, offer recreational facilities and more so rejuvenate their spirit in a city gone mad with construction of multi-storyed apartment blocks leaving no breathing space for the dwellers.

In our country, especially in Dhaka city, such water bodies as Gulshan-Baridhara lake and Uttara lake in the outskirts that still remain escaping human settlement and greed of the land grabbers are being polluted at will. Unhappily for the residents of Uttara, Gulshan and Baridhara and

These water bodies are now a lifeless receptacle of human wastes. Uttara township that was once conceived to be a model town as per the original Master Plan has turned into a cluster of apartments, shopping malls, clinics and schools with densely packed surroundings. Added to this is the menacing proliferation of garments, dyeing and knitwear industries growing up cheek by jowl with residential houses. In absence of proper drainage system for disposal of the wastes, industry owners as well as residents drain out the waste water and other wastes into the Uttara lake. Once a source of pure and transparent water, Uttara lake today is full of raw sewage and toxic waste.

For centuries, waters in lakes and rivers of this country have meant purity and life. But shockingly, poisoned waters in the Uttara or Gulshan lake now symbolise not life but death. Sadly true, there is little original water left in the Uttara lake, only narrow streams of sewage and industrial waste water that's pumped continuously into these glorified sewers.

Uttara lake is a large water body, almost 5 km in length and 200m wide stretching from one end of the sector no.3 and running straight across the middle of sectors nos. 5, 7, 13 and 11. It could have been, if properly preserved, a pure surface water source. Uttara is now a vast residential area inhabited by about 3 million elite citizens mostly comprising retired high level government officers, doctors, engineers, teachers of universities and colleges, lawyers and well-meaning businessmen. But in total violation of the original Master Plan because of the pressure mounted by say, ministers and high ups in the government, during the last 20 years, RAJUK allotted plots for housing to influential groups on spaces earmarked for market, play ground, parks and schools or even burial ground. With houses built cheek by jowl, the whole residential area looks macabre.

Irrational housing plan, absence of adequate sewer lines and most notably lack of urban vision and environmental concerns make a mockery of model town requirements. Precisely speaking, the grand plan of the visionaries of those days for Uttara has burst into an illusion. In the face of mounting protests by the conscious dwellers, encroachment attempts on the lake had stopped for some time. But it has again gained momentum. Defying the Supreme Court injunction of March 19, 2005 on the basis of a

writ petition filed by BELA in matters of filling up the lake by some groups having backing from the high ups, filling of the lakeside in the same contentious plots has again started in sector no. 3. No sooner had these fake owners, based on unauthorised allotment started their work again in full gusto, local residents filed a G.D. in Uttara Thana enclosing the Apex Court order but that complaint seems to have fallen on deaf ears.

With such encroachments of the lake going apace and waste water, garbage and piling materials finding way into the lake from different sectors, the bed of the lake has been raised. The lake that exists today by name only is just a cesspool of blackish stagnant water. Thanks to the enterprising efforts of some residents in the adjoining sectors, RAJUK completed the construction of a mini park with a 550m long walkway in sector no.13 by the side of the lake, covered by plantations of trees and flower plants undertaken by Dhaka Forestry Division. This seems to be the only breathing space for the residents of Uttara on the western side of the Dhaka-Tongi highway. But pathetically true, breathing has become difficult because of the horrible stench coming from the polluted toxic water of the lake.

The situation poses a major threat to the health of the children living amidst such unsanitary condition. One tends to believe that the vision of hell that urban Bangladesh has really become is mainly because development has taken place before planning. Astoundingly, none and most notably our national leaders, many of whom reside in these areas, notice that they have allowed their housing areas to become a vast squallid wasteland with everyone closing his/her eyes to the importance of town planning. Unfortunately, protest rallies, traders, professionals, Bundeckhand University students and even housewives stepped

human chain, media reports, editorial comments and columns pinpointing the abysmal work going unabated, specially in this so-called model town, have yielded no response from the authorities concerned.

Happily, records abound in stories that recount the role of lakes in creating the Indian history. Historians think that it is possible that the sound of gentle ripples softly lapping against pebbles may have lulled Rani Laxmi Bai into a reverie in which she saw an India throwing off the colonial yoke. The intrepid 19th century queen, the sword wielding icon of resistance to the British spent a great deal of time by the lake in Jhansi. The beauty of the place was invigorating since the shimmering water and lush greenery around captivated human imagination. But the Laxmi Taal, as the lake is known, was reduced to a cesspool covered by unyielding stretches of water hyacinth and wastes flowing into it from all directions. Rajneesh Dubey, district magistrate of Jhansi at the time took it upon himself to revitalise this historical water body that was later named as Lake Placid.

While on a tour to different regions of Jhansi district as Dubey stood on the banks of the lake, the foetid stench of the of rotting plants and solid waste made him realise the task he was to shoulder. Dubey, mindful of the lake's significance, wondered what the 175-year old lake must have once looked like and what he could do to save it. But aware of the fact that securing government fund to clean the lake would be difficult, he instead turned to the public to carry out the campaign early in 2002. Responding to his plan, traders, professionals, Bundeckhand University students and even housewives stepped

out. In a departure from the past, Uttara residents aren't resigning to their fate. Worsening civic and environmental conditions and lack of civic amenities have nudged citizens across the region out of their slumber. With Uttara Association, the central body representing sector Kalyan Samities, as the nodal agency, 'Uttara Lake Bachao Andolan' committee formed in December, 2005 have launched massive awareness campaign to jolt communities and public leaders to action. Could there be someone from the industrial conglomerates, banks, business community, NGOs and public leaders who would come forward to save these water bodies, the essence of life in a polluted city? If RAJUK, Dhaka City Corporation and WASA, the trio individually or together cannot cope with the enormous task with their own resources then they should invite such public participation, themselves remaining as facilitators, as they did for the beautification work of the city on the eve of the SAARC Summit.

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forward as volunteers. Finance was not the issue at all as the local citizenry rose to the occasion. Petrol dealers provided fuel for the huge JCB machines that removed the slush and garbage, the Crushers Association supplied tractor trolleys and NGOs provided lunch packets for those at work. The government here worked as a facilitator.

The recovery of the lake was by no means an easy task as the discharge from about a dozen drains in the city had been emptying into the lake for decades. There is something more for us to learn if we ever set ourselves in recovering the Uttara or Gulshan lake considered by many as pristine possessions for this historical city. Dubey's work, away from our country may be inspiring and might revive the concept of community living in our environment that seems to be on the wane because of our entrenched self-interest in every pie. As it appears today, whether it is an environmental disaster, a calamity, a drowsy death or even taps running dry, we are used to seeing a Bangladesh buckling under. With outstretched hands lamenting the lack of government largesse, we take everything as fait accompli. That mindset has to be changed.

The failure of the government's development efforts clearly has more to do with systems and less with resources. There must be some people around us or some enterprising individuals like Dubey who pioneered the work for the revival of the Lake Placid or Aradhana Shukla eloquently named for recovery of Naini Taal Lake in Uttarakhand in India who can lead the transformation of the area from urban chaos to a model township. The current system underestimates the community's ability to contribute. Finance is not the issue. More important is participation, for them to see that things can be changed. Precisely speaking, Uttara lake or Gulshan Baridhara lake or even the river Buriganga can be revived by community participation. This is true at a time when politics is defined and understood as nothing beyond elections and the art of cobbling a majority.

There are very few opportunities available within this system for bringing about basic change. Which is why disenchanted people are turning to community initiatives. Citizens are indeed stepping

environmental demand was found to be about 150Mm³. Water is also required to control the salinity intrusion into the rivers. Inadequate discharge of upstream rivers, would let the saline water be pushed in by the Bay of Bengal. That may destruct the natural balance of the inland water ecology, including fishery, aquatic flora and fauna and navigation. To prevent saline water to be pushed in, approximately 700 million acre feet of water need to be flushed out per second by the GBM and their distributaries. More precisely, the in-stream flow requirement to push the salinity fronts in the rivers near Khulna and to prevent environmental degradation in the SW hydrological region was estimated to be about 150m³/s in the Gorai river and 25m³/s each in the Kobadak, Betna, Mukteswari and Hari rivers (WARPO).

However, the supply of water to meet the demand of different sectors does not remain at the same range. Though, the GBM and their distributaries flush out 953 million acres/feet/second throughout the year, but the proportion of the flow becomes almost half during the dry season. The variation between average high and low flow is very distinct, which is about 1:4 in the monsoon and 1:20 during the dry season. The reduction in upstream flow during the dry season is mainly caused due to lack of rainfall and such reduction is believed to be enhanced because of the construction of Farakka barrage on the Ganges. During dry season as there is no rainfall, the surface gets dried up and the surface water (ponds, beel, haor, baor, etc) gets evaporated as well. In such circumstances, river water and ground water is the only source to be utilised for crop production and other water related activities. But as 90% of the river water flowing through Bangladesh is originated outside the country. Bangladesh fails to regulate the water flow whenever required.

Therefore, during dry season farmers are unable to produce crop without extensive irrigation. But recently, many existing irrigated areas are experiencing regular shortages during critical dry periods (11 March to 10 May). These shortages are causing farmers to grow low water demanding crops during earlier months of the dry season, and to keep the lands fallow for subsequent months when ground water is low. Consequently, in spite of technological support, the enhancement of crop production remains stagnant during dry season. Although measures have been adopted to provide irrigation, but it covers only about half of the potential area. All irrigable areas (75600km²) need to be brought under irrigation to meet increasing food demands for growing population, which now exceeds 140 million.

Furthermore, proper management practice needs to be adopted for irrigation. Because, though irrigation is supporting crop cultivation, on the contrary it is causing problem for pisciculture and navigation. Because the use of water in irrigation lessens the resource's utility for others downstream, it often leads to conflicts among different stakeholders. Farmers irrigate their lands by pumping water from the ponds, beels, haors and small rivers. This leads to be disruption in fish culture. Therefore, the fishermen fail to harvest beneficial percentage of fish, which leads to conflict with the farmers. Such conflict can only be prevented through proper management of irrigation and water bodies during dry season.

Water scarcity during dry season is getting intense as a result of variations in the seasonal cycle caused by climate change. Excessive dryness of land, prolonged dry season, desertification of the northern region of the country are some of the symptoms indicating the change in the seasonal cycle. Prolonged dry season has become more frequent in recent years, with phenomenon as "Monga", leading to scarcity of food. Whatever the reason, water scarcity during dry season is imposing problem for the agriculture as well as the economy of the country and the vulnerable group are suffering the most. In spite of being a riverine country Bangladesh is failing to quench the thirst of the nation. Assessment for water availability during dry season is essential in such circumstance to calculate the quantity of water that can be abstracted and utilised, to meet the demand of all sectors.

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Although the delta water bodies, but they do not hold much water for dry season.

about 26,160 km², with a gross irrigation demand of about 15,665 Mm³.

Non-agricultural demands arise from areas under fisheries, forestry and environmental importance. Areas under fisheries includes major and regional rivers, standing water bodies (ponds, lakes), and seasonally flooded water bodies (haor, baor, beels). These are the major fish habitats and breeding grounds, supporting the sustenance of the fish population of Bangladesh. Fishery is still one of the major economic sectors on which the livelihood of the poor

fishermen depends. But the water bodies are getting decreased due to the encroachment for agricultural activities, sedimentation and encroachment for human habitat. Other than anthropogenic reasons, under natural condition, water from these water bodies are getting evaporated to the atmosphere and draining to the surrounding rivers. Therefore, to meet the demand of the total area under fisheries which is about 940km², the estimation is about 435 Mm³. Environmental demand includes that for rivers and parks, playgrounds and roadside plantations in urban areas. For rivers the demand rises due to the evaporation loss to the atmosphere and

leaching into the groundwater. The total area of rivers is about 960km² and to meet the demand for water the estimation is about 430Mm³. And urban areas under environmental use, includes mainly parks, playgrounds and gardens and in case of the rural areas the use includes household trees, bamboo clumps, yards, etc. Total area under environmental uses (excluding rivers) was found to be about 5945 km² from the district level data given in NWMP. The break up into the urban, rural and other areas being 1883, 2829 and 1145 km² respectively (WARPO), the total