

Environmental hazards caused by pollution of water

Historic Kandy lake and Colombo's 'Beira' lake - then and now

By M. B. Dassanayake

It is heartening to note that the Kandy Municipality is taking drastic steps to combat environmental hazards particularly in the vicinity of the historic Kandy Lake. The pedestrians and vehicles passing the Mahamaya Girls' College and the Lakeside Adventist Hospital are mostly affected by the obnoxious smell emanating from the lake which is highly injurious to the health of the passers-by, as man is both the cause and victim of this ugly situation.

Man is both creature and moulder of this environment which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man made are essential to his wellbeing and to the enjoyment of basic human rights - even the right to life itself. Man's capability to transform his surroundings, if used wisely can bring to all people the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment.

Natural water like rivers and lakes are composed of not only water but a whole lot of living organisms existing in a dynamic equilibrium. Any water is classified as polluted if it is not fit for human or animal consumption, industrial or agricultural use.

Pollution of water is caused by disposing sewage water and industrial effluents into it. In the rural areas the rivers and lakes are commonly used for bathing, washing clothes and cattle. The same water is subsequently used for drinking and cooking as well. Improperly treated sewage contaminating potable water cause bacterial epidemics.

Kandy Lake

I wish to emphatically mention that there is a vast difference historically and otherwise between Kandy lake and Colombo's Lake 'Beira'. Kandy is a dream city which has had its full share. Partly in the case of Kandy, it is the way it nestles at the foot of green hills making room charmingly for a lake as well, with glimpses of the hill-perched bungalows screened by thickly leafed trees.

Kandy was for the first time adopted as a capital in the year 1592 A.D., by King Wimaladharma Suriya, the one hundred and sixty fourth monarch who had reigned in Sri Lanka since the year 543, B.C., the earliest period of which our events are recorded. He was going from place to place in search of a secure site for his capital. His people reported that a 'Kiri-mugatiya' (the king of mongooses) was frequenting the 'vanatha' (threshing ground) of Hingula-Wela, at present -the Kandy Lake and that this would be the ideal site for the capital.

Kandy was chosen as a royal city because of its strategic position. It became a religious centre because it was a royal city. Drowsy, flower fragrant, a gem of rare splendour set amidst the picturesque hills, Kandy sleeps dreamily, reflecting her delicate beauty in the still waters of her limpid lake.

Emerson Tennent, a British administrator of the mid-19th century was inspired by the charm of Kandy; "nothing can be more picturesque than the situation and aspect of Kandy on the banks of a miniature lake overhung on all sides by hills, which command charming views of the city with its temples and movements below."

The Kandy Lake was begun before Major Adam Davy attempted to capture Kandy. According to R. L. Brohier, the King is supposed to have first built a dam across the paddy-fields, starting from the 'Patrippuwa' (Octogen) side, where today one can see steps leading into the lake by the 'Mahamaluwa' (Esplanade) and stretching across to the 'Poya-maluwa'. This is the dam, along which bund was a roadway for the King to go across to the 'Malwatte Temple'. The lake thus formed was called 'Kirimuhuda'. When the King found that the lake thus formed was very beautiful, he then extended the dam to the present bund, removing the earth on both sides of the previous bund. According to D'Oyley, the dam was constructed between 1810 - 1812 AD in the centre of the island

was built the 'Jayatilleke Mandapaya' supposedly where the King sent his Queens' for rest and recuperation. This lovely artificial lake built by the last King of Kandy Sri Wickrema Rajasinha was completed in 1812 A.D. It was only three years after 2nd March, 1815 A.D., that the British took possession of Kandy.

Present condition - environmental hazards

The once beautiful expansion of water is today struggling against the throttling silt fast gathering around the lake. Already towards Ampitiya the accumulated earth and sand has stabilised itself into a few acres of luxuriant grazing land, adjoining the playing fields that were also once a part of the lake.

Storm water has brought down to the lake during the past few years tons of eroded soil from the building sites and factories in the neighbourhood. The silt traps have proved to be utterly ineffective against the massive downflow of silt. The lake bund too has consequently become shoddy and ill-kept adding to the general appearance of neglect.

All the works of restoration now done under the Cultural Project will have little meaning if -the lake remains neglected.

Colombo's 'Beira' lake

The lake could have become one of the pleasing amenities of the city, but for a long time, it was neglected and as the population increased it became a menace to the health of the inhabitants. Much of the sewage of the city found its way into it. Some effort was made to dredge the lake but this by itself could not cure the unhealthy and obnoxious conditions arising from the presence in the midst of the city of a wide stretch of polluted and stagnant water.

Proposals were made from time to time to connect the lake with the harbour by means of a canal and a lock or locks. Closely allied with them was a scheme for draining the lake or cutting canals though it to the various stores and the proposed lock. In 1904 A.D., the Governor appointed a Committee composed of - the Director of Public Works (Mr. F. A. Cooper), the Principal Collector of Customs (Mr. W. E. Jackson), the Chairman of the Colombo Municipal Council (Mr. E. M. de Courcy Short) and a Member of the Mercantile Community (Mr. J. Wardrop) to report on the proposals to connect the lake to the harbour.

The Committee reported on the 8th of November, 1905 A. D., that, owing to the depth of the lake, the construction of a canal from the harbour to the lake would be by itself of little practical advantage. The construction of such a canal, therefore, necessitated the canalization of the lake or extended dredging over the whole area.

Some European firms said that their interests would be adversely affected, but the majority welcomed the scheme which was carried out and which added much needed land for development. It cannot be denied, however, that the best use of the lake has not been made for ornamental or utilitarian purposes.

Past history

The Beira Lake is one of the principal features of the city of Colombo, and it has received the attention in turn of the Portuguese, the Dutch and the British. One of the earliest references to the lake is to be found in 'The Conquest of Ceylon' by Father Fernao de Queyroz published in 1688 A.D. He says that when Vijaya Bahu laid siege to Colombo in 1521 A.D. The Portuguese Captain Lopo de Brito pursued the attackers, "killing and wounding them till they reached a brook, which was afterwards dammed into a lake for the better fortification of the city". Queyroz adds that, when large reinforcements arrived from Goa in 1555 A.D., they "built some houses giving rise to the city of Colombo which had within it the mound of Laurence and was surrounded by Capana (Sinh, 'Kalapuwa') a lake for nearly three leagues and half in length, which in summer admits of access to Colombo in some places with water to the waist."

During the siege of 1578 A.D. Mayadunne, seeing that the Portuguese boats were plying in the lake, "determined to drain it, but without avail, as it was valorously defended." His son Rajasinha besieged Colombo several times and drained the lake dry twice by canals, one of which is now represented by the San Sebastian Canal.

The lake is described as full of crocodiles, whence the name Kayman's Gate. The word 'cayman' was used for a crocodile both by the Portuguese and the Dutch. There were several islands in it, most of which have since disappeared. Slave Island had a cinnamon plantation



Kandy Lake.. nestles at the foot of the green hills

and another Island was large enough to have 600 coconut trees and a whole village.

In preparing the defences of Colombo against the Dutch attack in 1665 A.D. the Portuguese "made use of the lake, by which they brought palm tree timber and fascines, and a certain bark of a tree which they call 'vedipara', which made up for the lack of matches."

The Dutch in their turn, "launched on the lake many light and capacious vessels of extraordinary workmanship in which were 250 soldiers, to capture the houses of D. Jeronimo de Azevedo, where the wall of the rampart was three palms broad and little more than one fathom high." The lake was the scene of some of the bitterest encounters between the Dutch and the Portuguese.

The Portuguese ramparts which were battered into rubble were temporarily replaced by a stockade extending to the edge of the lake. Later the

defences were withdrawn to a higher ground a couple of hundred yards back. The low-lying ground outside was flooded and a broad expanse of lake flowed in as far as Kayman's gate.

There is still much to be done to make the lake one of the most charming features of the city of Colombo.

Present condition - environmental hazards

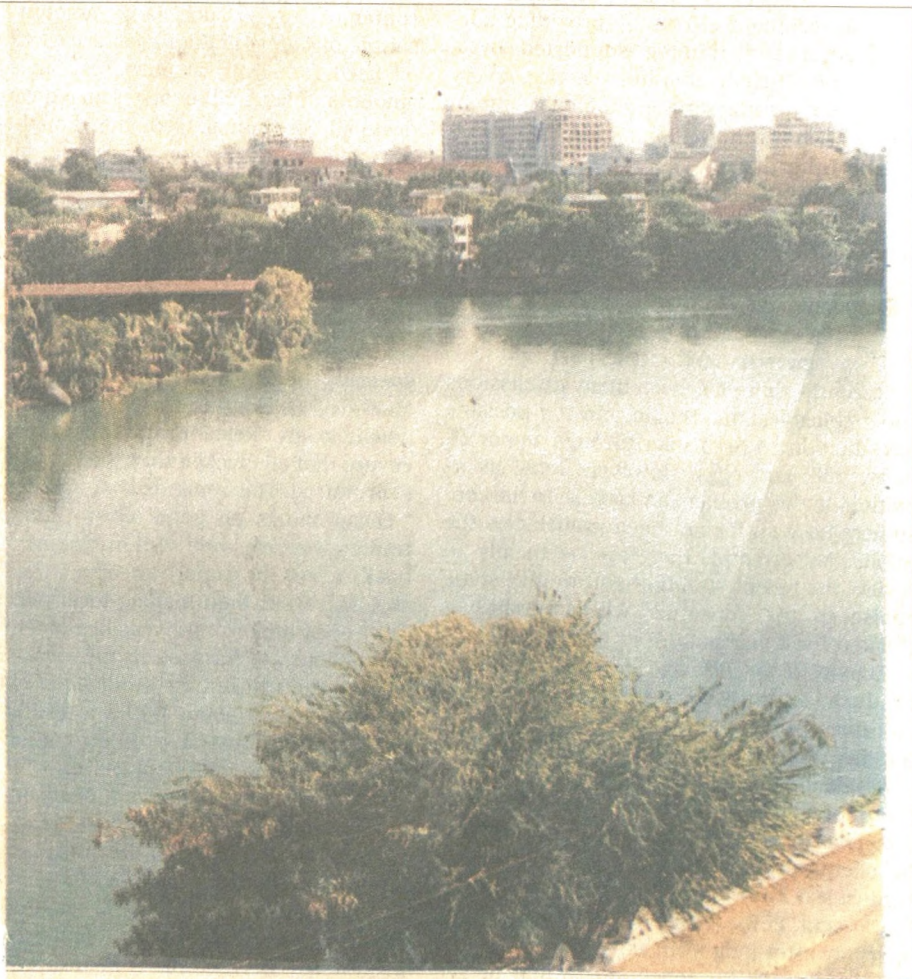
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The offensive smell experienced by motorists and pedestrians as they pass the Beira Lake, is that of hydrogen sulphide and other gases containing amines released from putrefying dead algal varieties lying unflushed at the lake bottom.

Scientists, at the Central Environmental Authority believe that these algal varieties are lying unflushed at the lake bottom.

Scientists at the Central Environmental Authority state that these algal varieties thrive and multiply profusely on nitrates and phosphates contained in human excrete and urine. Low-income city dwellers along the edge of the Beira Lake are defecating directly into this lake and offering a rich nutrient medium for these algae to thrive, the scientists said.

They said that a multi-million rupee project was underway under the Urban Development Authority (UDA) to develop the Beira Lake.



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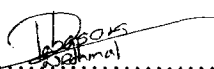
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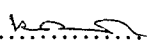
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