

Alternative water resource management in the periphery of wetlands

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Wetland near urban agglomeration: Many wetlands today find themselves in the periphery of large urban agglomeration and their capacity as a natural cleanser may now be under extreme stress. The environmental balance in the growing city would itself be jeopardized and a biosphere disappears. The Sundarbans and its extended wetlands now sitting at the edge of Calcutta metropolis is a case in point. Renowned as one of the most successful urban recycling zone, the forces of speculation, greed and official callousness is destroying a future ecological asset. Calcutta as a city and its peripheral wetlands completely distinct biospheres. Water and waste management: Water and waste management in a developing city like Calcutta is spinning out of control and a natural zone of recycling that a wetland provides is perhaps the only silver line. The original twin sewer system of the city has been mongrelized in recent years due to immense population and resource pressure. The discharge to the wetlands hardly bothers about the excess load of pollutants. It is imperative to define a large buffer zone between the metropolis and the wetlands if this valuable biosphere is to be retained and large-scale ecological disasters may be avoided in the city. Thus water and waste management shall be two folds: Recycling and cleansing the city's wastewater including collecting storm water. Creating a special management zone in this area independent of centralized system. Operating as a macro scale-integrated system.

Extension of the central sewer water and waste infrastructure can only spell disaster in an already overloaded system. The basic infrastructure can fail in peri-urban areas where little planning has taken place and most arrangements are makeshifts.

The Zones in transition face a more complex problem that of successfully servicing their neighborhood at low cost while avoiding large scale damage to the environment. These peripheral areas have their own advantages vis a vis the wetlands: Low population density, Relatively large Biomass, Natural water bodies, Areas for recycling wastewater, Providing Agro/aqua activities. The challenge of planning a buffer to the wetlands targets not only at long term environmental grains but also in managing intelligently the water resources of an entire urban area. Creating a hygienic environment, a 'breathing green fringe' and even some recreational facility.

A case study of a project in the making: St.Xavier college off the E.M Bypass in Calcutta at the edge of a protected wetland (confirmed by the Ramsar Convention).

Reference

- [1] Project Brief, A.Biswas (2004).