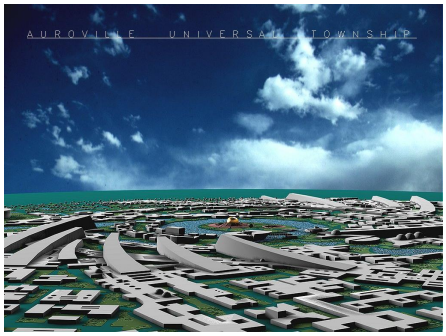
PROJECT “CITY OF AUROVILLE” IN INDIA

Integrated Water Management Project
Waste Water Treatment and Reuse Project
Storm Water Harvesting and Reuse Project



A solitary banyan tree stands on a low barren hill of red laterite, about 60 m above the sea which lies 5 km to the east near Pondicherry in South India. This tree is to become the centre of the city. Buildings will spiral outwards from it in the form of a galaxy, surrounded by a belt of dense tropical forest. Vegetation will extend inwards again to the centre between the arms of the spiral, acting as the ‘green lungs’ for the city.

On the crown of the hill will be gardens, surrounded by a large lake. Within the gardens, an amphitheatre, a large spherical building, and the ancient banyan tree will mark the centre of the city, which is meant one day to accommodate 50,000 inhabitants.

Even in drought years, precipitation over the city area corresponds to more than ten times the amount of drinking water needed. But the rainy season lasts only a few months.

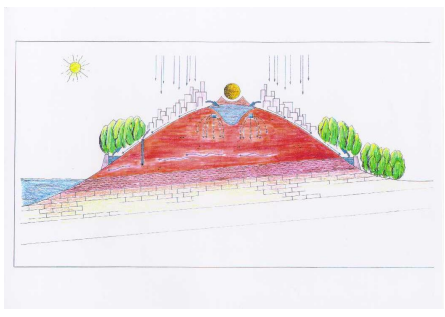
The upper layer of relatively impermeable laterite, together with the uppermost aquifer, form the entire plateau on which the city stands, and both slope gently towards the sea. Therefore, all of the water that percolates within the city area moves gradually above sea level towards the coast.

Rainwater falling on roofs can be collected in cisterns and used for drinking water and various household and gardening purposes. The surface runoff from roads, tiled surfaces, and open areas, can be collected and stored in reservoirs within the greenbelt up to the boundaries of the city. After filtration, through rootzone treatment plants the stored rainwater can be slowly pumped up into the central lake, a distance of no more than 20-30 m, by means of solar energy. From here, percolation into the groundwater table will take place. In this manner, the water level of the lake will be kept constant, providing optimal conditions for high quality landscaping and park areas, along with desirable climatic effects.

Sewage from the densely developed areas can be centrally purified in the greenbelt, and then be re-used for irrigation purposes. Sewage, as well as secondary runoff if necessary, from the less densely developed areas can be purified in root-zone treatment plants and reused on site for irrigation.

In this way, the geological and geographical "disadvantages" of the city's site, make a regime of rainwater conservation possible which would provide a plentiful water supply for both drinking and irrigation, even if the underlying groundwater becomes completely salinated. The average rainfall is not only sufficient enough to support a vigorous tropical vegetation, but would provide enough surplus to supply the surrounding areas. However, this will be successful only if the residents of the city protect the first aquifer from contamination.

The upper strata of earth beneath the city functions as a reservoir, and must therefore be protected. Drinking water can be obtained from wells in the greenbelt which tap the groundwater before it flows beyond the city limits towards the sea.



The extreme degradation of life’s basic elements through over exploitation of this area’s natural resources, has threatened the existence of human settlements. This water management concept enables the residents of the city to live unaffected in the midst of a degraded environment, so long as they, themselves, avoid polluting the ground and the water which together form the basis for their survival.

Present status: Pre-Feasibility

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