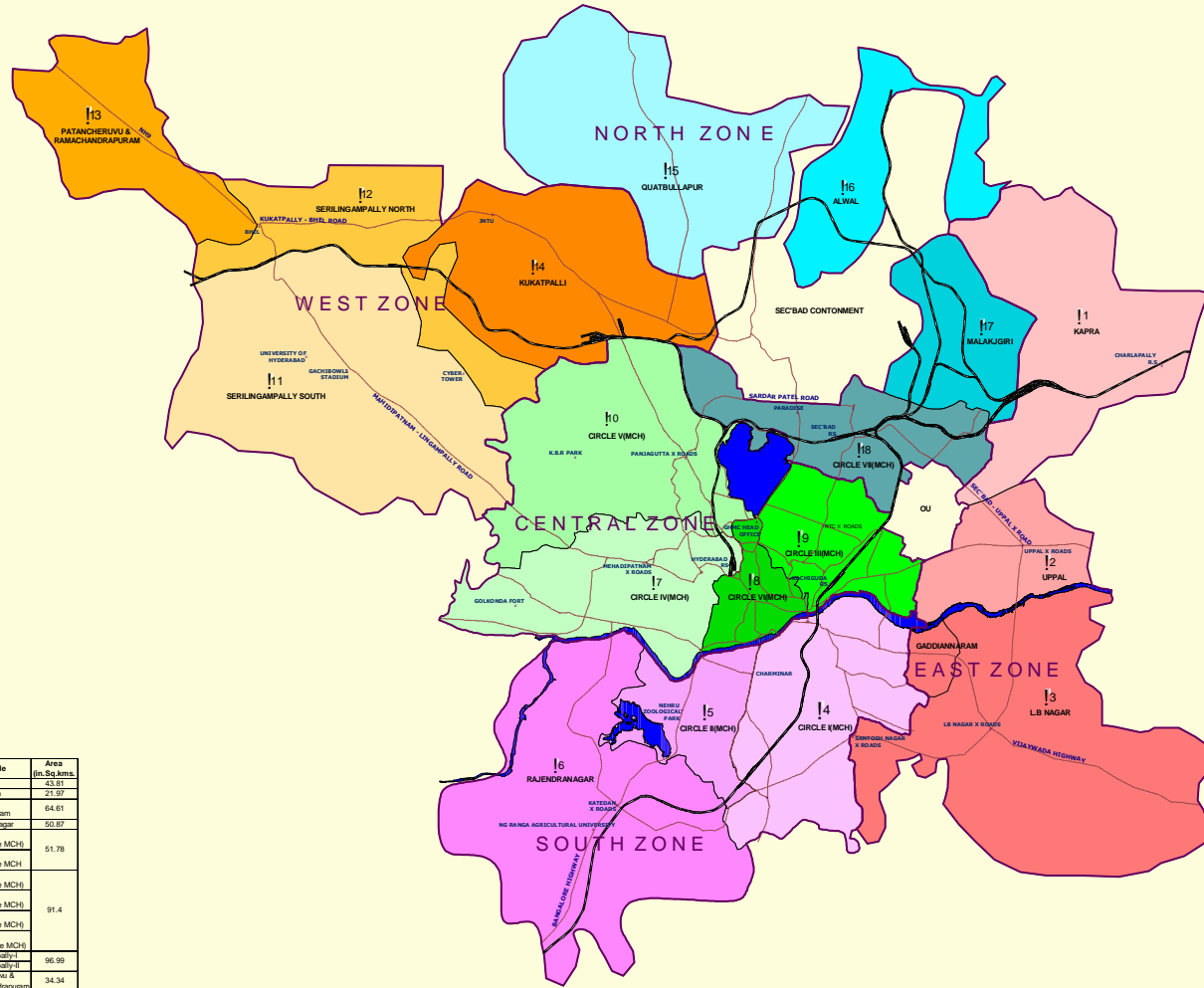


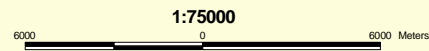
Welcome
to
Participants
Convention on
Biodiversity

BONN, GERMANY

GREATER HYDERABAD MUNICIPAL CORPORATION ZONE MAP



Sl.No.	Zone	Head Quarter	Area (in Sq.kms)	Sl.No.	Circle	Area (in Sq.kms)
I	East	LB Nagar (erstwhile Mpl office)	130.39	1	Kapra	43.81
				2	Uppal Kalan	21.97
				3	L.B. Nagar	64.61
				4	Rajendra Nagar	50.87
II	South	Sadar Mahal Chairman, GHMC	102.65	5	Circle-I of erstwhile MCH	51.78
				6	Circle-II of erstwhile MCH	
				7	Circle-III of erstwhile MCH	
III	Central	Abids (parking cum office complex)	91.4	8	Circle-IV of erstwhile MCH	91.4
				9	Circle-V of erstwhile MCH	
				10	Circle-VI of erstwhile MCH	
				11	Serilingampally-I	96.99
IV	West	Serilingampally (erstwhile Mpl Office), GHMC	174.45	12	Serilingampally-II	34.34
				13	Patancheruvu & Ramachandrapuram	43.12
				14	Kukatpally	26.52
				15	Alwal	52.92
V	North	Secunderabad GHMC	120.47	16	Quatbullahapur	16.75
				17	Malakgiri	25.39
				18	Circle-VII of erstwhile MCH	



LEGEND	
	Landmarks
	Zones Boundary
	Water Body
	Roads
	East Zone Circles
	West Zone Circles
	Central Zone Circles
	North Zone Circles
	South Zone Circles

OVER VIEW OF HYDERABAD CITY



- Located between 17°21' - 17°71' N Latitude and between 78° 21' - 78°76'E Longitude with an average altitude of 560 m above MSL.
- Hyderabad City area comprises 625 sq. kms. in GHMC & 6800 sq. kms in Metropolitan development area.
- Topography – Rocky, undulating with gentle slopes, red gravelly soils.
- Tropical climate with annual rainfall of 800 mm (under semi-arid)
- Decadal growth rate - 37 % .
- Ranked 2nd in Area & 6th in population among the metropolitan cities in India – present population 7.5 Million.



OVER VIEW OF HYDERABAD CITY



- **Air connectivity to major cities of Middle East, South East Asia, Europe and USA.**
- **City having history of more than 400 years with Rich Culture and Heritage.**
- **City with cosmopolitan culture with a blend of traditional and modern styles of living.**
- **City co-habiting with different religions like Hinduism, Islam, Christianity and others.**
- **City famous for Deccan cuisine.**



Golconda Fort



Hi-tech City

GREEN PLAN FOR 2011-12



- **200 Landscape / Herbal Parks at a cost of ₹. 126 Million for recreation to the Citizens & increasing green environment.**
- **150 Tree Parks at a cost of ₹. 27.5 Million as green lung space to Citizens.**
- **Refurbishment of 25 Nos Central Media / Traffic Islands at cost of ₹. 10 Million for reduction of air / sound pollution levels caused by vehicles.**
- **Target of planting One Lakh Plants / Medicinal plants for creating awareness & medicinal values.**
- **Target of planting 50000 plants in colony avenues for aesthetic beauty & improving the green cover.**
- **To achieve self sufficiency in meeting the requirement of plant material by developing 8 nurseries with modern techniques / equipments.**



THEME PARKS



Palmetum Park



Butterfly Park

- **Botanical theme parks are being developed with an intention to create awareness among the citizens in respect of different categories of plant species and land-scapes**
- **To encourage academic interest among the students, botanists, Ecologists and other interested persons**

OVERVIEW OF THEME PARKS



S No	Name of the theme Park	Area in acres	Concept
1	Palmetum	1 acre	About 120 varieties of Palm Species
2	Ficus Garden	18 acres	About 64 varieties of Ficus Species
3	Bougainvillea Garden	3 acres	About 40 varieties of Bougainvillea species
4	Herbal Garden	12 acres	About 150 varieties of Medicinal & Aromatic Species
5	Rainbow Garden	3 acres	About 100 varieties of shrubbery which have foliage other than green
6	Sacred plants garden	1 acre	with species of plants described in ancient scriptures
7	Plumeria garden	2 acres	With about 140 varieties of Plumerias
8	Cycadarium	8 acres	With about 30 varieties of Cycads
9	Sacred plants garden	1 acre	With species of plants described in ancient scriptures

WAY FORWARD

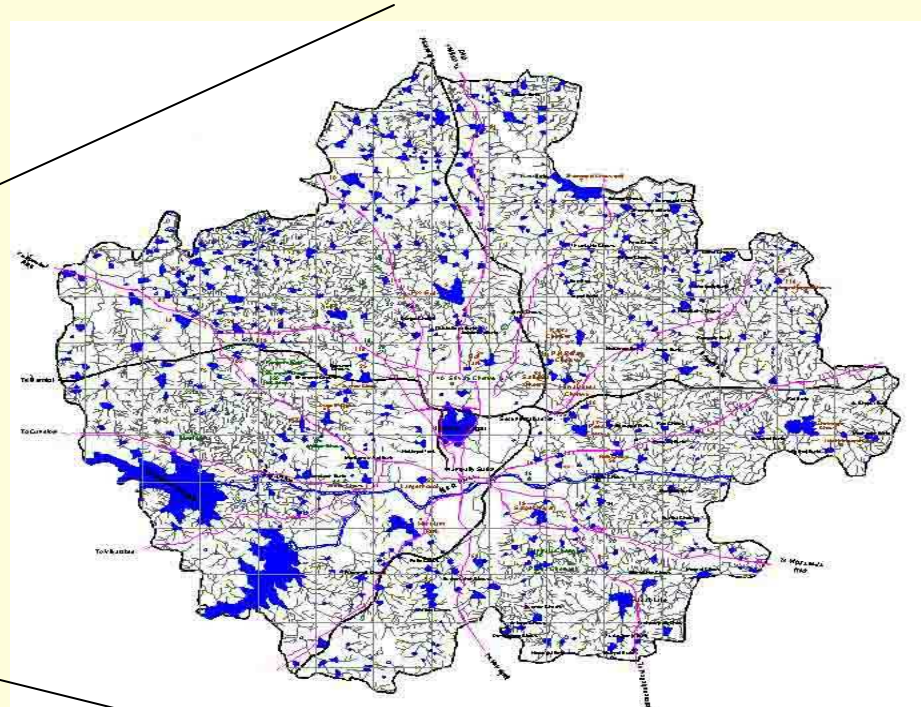
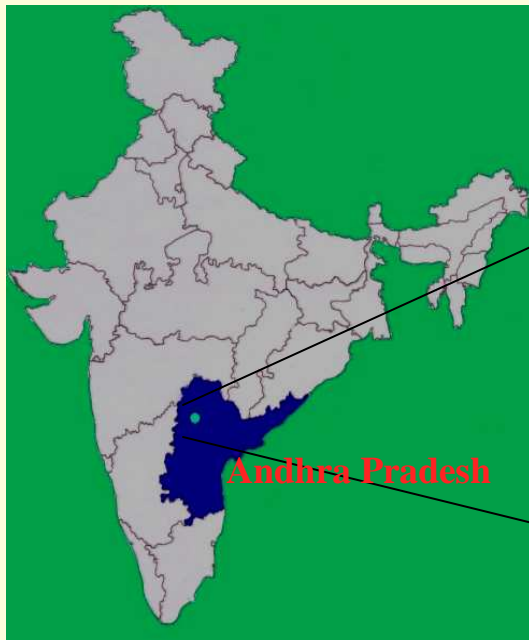


- **Increasing the Green Cover to reduce the intensity of radiation and ameliorating the microclimate by raising massive plantations.**
- **Developing new Theme parks / Herbal Parks / Landscape parks / Tree parks / Sacred Gardens / Xerophytes/Memorial Parks in colonies in city with new themes / concepts.**
- **Roping in more Residents Welfare Associations in Parks maintenance.**
- **Other general awareness activities in the colonies such as “save the tree campaign”, conservation of nature & water, encouraging kitchen/medicinal gardens, minimizing pollution levels by planting trees, Ban on usage of polythene bags.**

URBAN LAKES – DRAINAGE MAP



INDIA



Hyderabad City

- About 400 big & small lakes in Hyderabad City existing.
- 169 lakes notified for protection and conservation of water spread area with no activity in 30 m buffer around the water bodies.

NEED FOR RESTORATION OF URBAN LAKES



- To harvest the precious rainwater and augment shortfall in water supply needs of Hyderabad
- To moderate the flood risk by interconnecting the lakes
- To utilize the wastewater by treatment process during the dry weather and maintain lake water balance
- To improve the scope for recharge of ground water within the influence zone of the lakes



NEED FOR RESTORATION OF URBAN LAKES



- **To improve the health conditions of people living in the lake surroundings.**
- **To enhance the biodiversity in and around the lakes.**
- **To induce recycling reuse of wastewater after treatment for non-potable uses for gardening and industrial purpose.**
- **Develop local economy through eco-tourism activities at lakes.**



LAKE PROTECTION



- **87 No. of lakes and their surroundings which are being protected and conserved.**
- **Some of the lakes have been taken up for development as an Eco-Conservation Projects.**
- **Flora & fauna has been conserved. Variety of birds and aquatic animals can be noticed in these lakes.**
- **For some of the lakes greenery & pathways have been created all around.**

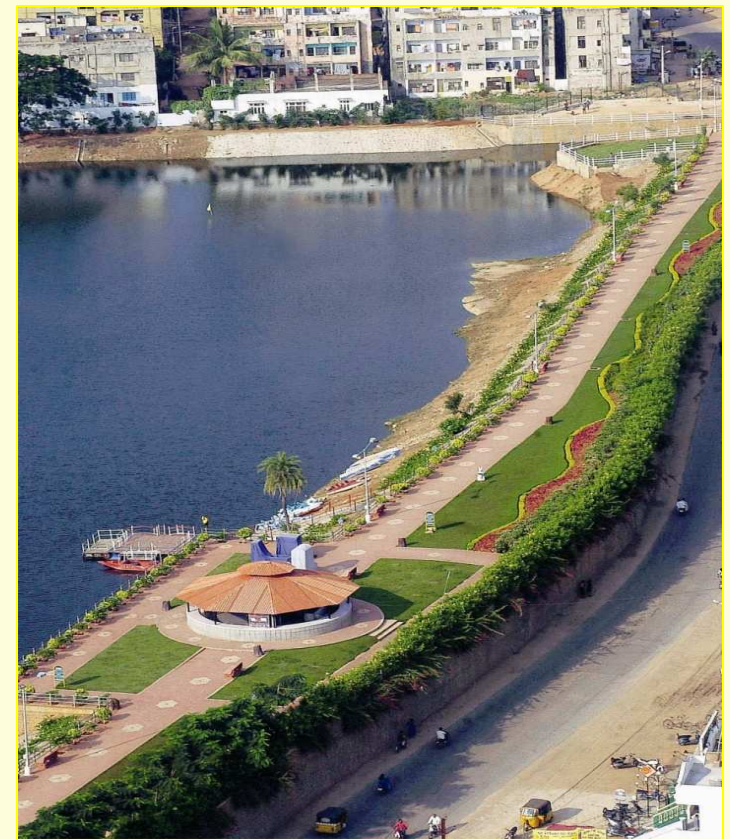
“Lotus pond” as an eco-conservation project

RESTORATION WORKS AT LAKES



CATEGORY - I

- **Formation of peripheral bund along the shore line of the lake**
- **Desilting the lakebed by dredging**
- **Strengthening and widening of main bund**
- **Restoration of surplus weirs and sluices**
- **Construction of STPs for treating the raw sewage and letting the treated water into the lake to maintain the lake water to the desired level**



RESTORATION WORKS AT LAKES



- **Restoration of inflow and outflow channels**
- **Diversion of excess sewage by laying pipelines.**
- **Beautification of lake bunds and periphery with landscaping and plantation.**



RESTORATION WORKS AT LAKES



CATEGORY - II

- **Formation of peripheral bund along the shore line of the lake**
- **Desilting the lakebed by dredging**
- **Strengthening and widening of main bund**
- **Restoration of surplus weirs and sluices**
- **Restoration of inflow and outflow channels**
- **Plantation on Lake bunds.**
- **Proposed for restoration of 11 major lakes under NRCD at a cost of ₹.1000 Million.**



RESTORATION WORKS AT LAKES



Exclusive Bird Island Created at Safilguda Lake

Rich faunal and floral Bio-diversity in the midst of the city



HUSSAINSAGAR LAKE & CATCHMENT AREA IMPROVEMENT PROJECT



- **Constructed in 1562 AD for Irrigation purpose Converted as drinking water source in 1884 – 1930.**
- **Due to rapid Urbanisation, Lake became receptacle of sewage and industrial effluents.**

- **Project taken-up to improve Lake water quality by preventing pollutants entering in to the lake, overall lake environment for enriched bio-diversity and increasing potentiality for Eco-Tourism.**
- **Project includes construction of STP's, sewerage diversions, desalting/ Dredging, aeration and shore lake improvement.**
- **Project cost – ₹. 3000 Million: funded by JICA.**

RIVER MUSI CONSERVATION PROJECT



PROJECT BACKGROUND



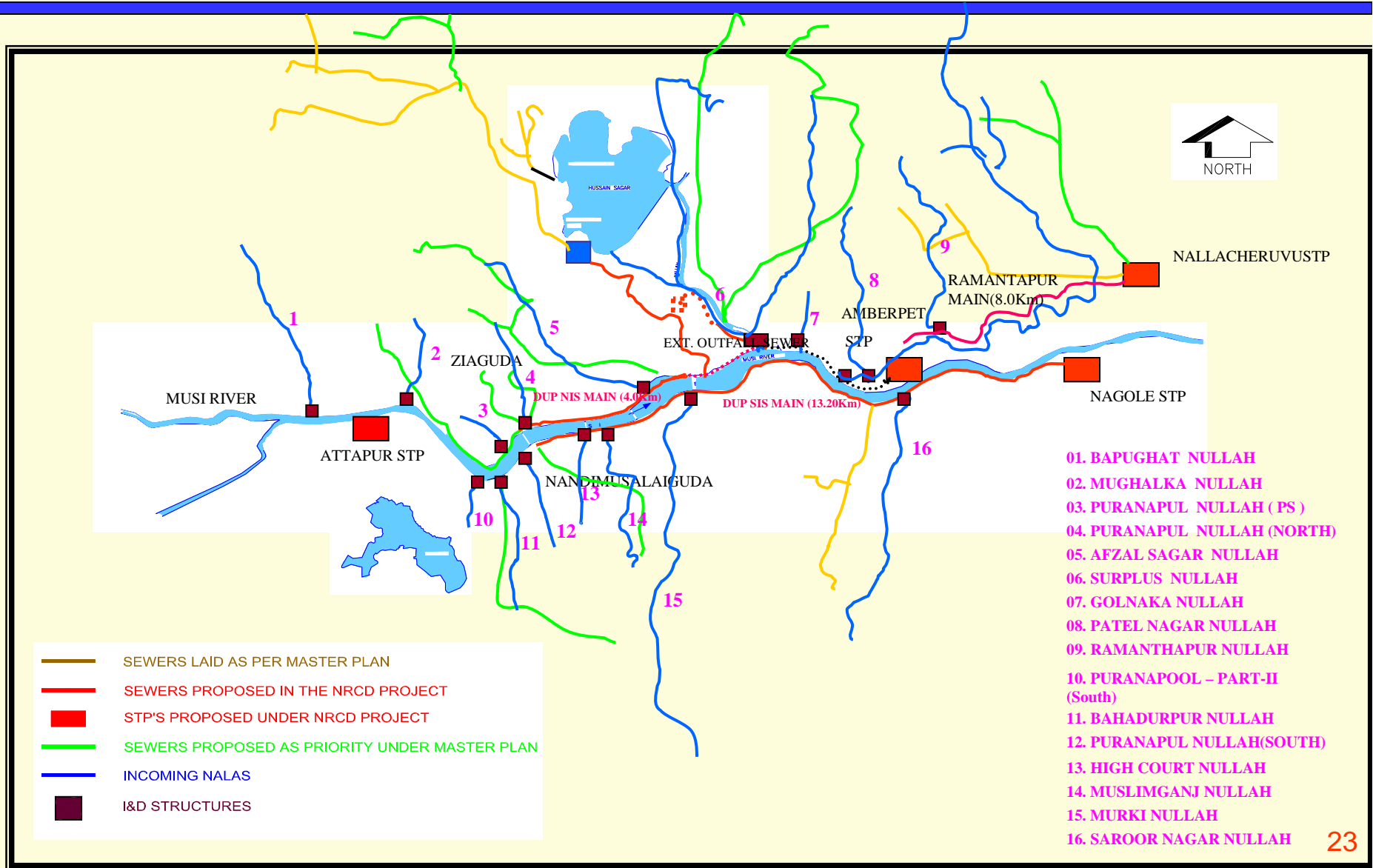
- **Musi River flows through midst of the Hyderabad City bifurcating city as South of Musi and North of Musi.**
- **The entire sewage flows to River Musi through various open nalas from South & North parts.**
- **To contain such dry weather flows in the nalas and in the Musi River, the Ministry of Environment & Forests, GOI, has approved a project under National River Conservation Plan of NRCD for laying suitable Conveying Mains, construction of Interception & Diversion Structures on Nalas and Sewage Treatment Plants for treatment and disposal of sewage.**

KEY COMPONENTS OF THE PROJECT



- **Construction of 16 Interception & Diversion (I&D) Structures**
- **Laying of Conveying Mains to nearby STPs – 35.36 Km**
- **Constructions of 4 STPs of 592 Mld Capacity**
- **Cost of the project ₹. 4 Billions – Phase –I of NRCD**

PLAN SHOWING THE LOCATION OF STPs AND INTERCEPTION & DIVERSION STRUCTURES



339 MLD STP AT AMBERPET



Distribution Box & UASB Reactors

339 MLD STP AT AMBERPET



UASB Reactors

DPR OF MUSI RIVER CONSERVATION PLAN PHASE-II PROJECT UNDER NRCD



In order to prevent further pollution in the River Musi, the Phase-II Project was formulated as per the guidelines of the NRCD ₹ a cost of . 10 Billion.

Project Components:

- Construction of 610 Mld capacity STPs at 10 locations**
- Laying conveying mains to STPs for 74.7 Km length**
- Construction of 8 Nos I&D's at Nalas for sewage diversion**
- Refurbishment of old sewers for 14.8 Km length.**

RIVER MUSI CONSERVATION PLAN



- **Present water supply in the City – 1546 Mld.**
- **Sewerage generated – 1237 Mld.**
- **Sewerage already treated with localized STPs – 35 Mld.**
- **Sewerage Treated under Phase-1 of NRCD – 592 Mld.**
- **Sewerage proposed to be treated under Phase-II of NRCD – 610 Mld.**

BIODIVERSITY MANAGEMENT – INVOLVEMENT OF NATIONAL, REGIONAL AND INTERNATIONAL INITIATIVES



- **Green Hyderabad Environment programme – initiated for development of lakes and greenery with the assistance of Netherlands Government – Cost ₹. 2.25 Billion.**
- **Hussain Sagar Lake Improvement Project – Assisted by JICA – Cost ₹. 3 Billion.**
- **Musi River Conservation Plan – Funded by GOI under NRCD – Cost ₹. 4 Billion (Phase –I) and ₹. 10 Billion (Phase –II)**
- **Musi Revitalisation Project – Funded by GOI under JNNURM - Cost ₹. 400 Million**

REGULATORY MECHANISM



- Strictly implementing the provisions of Andhra Pradesh Water, Land and Tree Act-2002 for preventing tree felling, polluting the water bodies / Water supply systems, encroachment of water bodies.
- Tree plantations in Urban public areas and road margins shall be owned by the Municipal Corporation.
- No felling of trees or branches is permitted without prior permission of Competent Authority.
- The Government has constituted an Inter Departmental Committee for protection of trees, lakes, ponds & tanks.
- Whosoever contravenes any of the provisions of the Act, for illicit felling of trees shall be punished with fine not less than ₹. 1000 & up to ₹. 5000.
- Any person or organization damages, alters, pollutes any part of water supply system or water body, encroaches water body, tanks, lakes ponds etc is liable for punishment with imprisonment not less than one month & up to six months.

