

CONSERVATION AND MANAGEMENT OF URBAN LAKES

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PROBLEMS FACED BY URBAN WATER BODIES

ENCROACHMENT

(Loss of water bodies)

- Building construction
- Playgrounds
- Cultivation
- Infrastructure development

Waste dumping

- Municipal solid waste
- Hazardous waste
- Bio-medical waste
- Building waste

Effluent discharge

- Industrial
- Sewage
- Storm water
- Chemical fertilizers and pesticides
- Heavy metals

POLLUTION

(Decrease in water quality)



Construction on Shivapura tank bed, Peenya



Construction debris in Bellandur tank



DISTRIBUTION OF WATER BODIES IN BANGALORE REGION

<i>Type of lakes (in ha)</i>	<i>Bangalore Development Authority</i>		<i>Bangalore Metropolitan Region</i>	
	<i>Number of lakes</i>	<i>Water spread area (ha)</i>	<i>Number of lakes</i>	<i>Water spread area (ha)</i>
Minor (less than 2)	285	194.0	1,260	864.8
Small (between 2 and 8)	185	833.1	847	2,809.3
Medium (between 8 and 25)	94	1,220.0	469	4,258.0
Large (between 25 and 50)	29	1,003.4	117	2,742.1
Very large (more than 50)	15	1,322.3	96	7,586.0
Total	608	4,572.8	2,789	18,260.2

Source: Lake Development Authority:2003



PROTECTION OF WATER BODIES

- ☀ **Eviction** of encroachments.
- ☀ **Demarcation** of water bodies by fencing and regular monitoring
- ☀ **Rehabilitation** and reclamation of closed quarries
- ☀ **Creation** of temporary buffer zones around water bodies
- ☀ **Reforestation** of existing buffer zones
- ☀ **Prevention of** overfishing, grazing, etc
- ☀ **Remediation** of severely polluted lakes (bioremediation, phytoremediation)
- ☀ **Rejection** of proposals harmful to wetland ecology



PREVENTION OF WATER BODIES FROM POLLUTION

- ☀ BWSSB treats only 40% of sewage!
- ☀ Illegal discharge of industrial effluents.
E.g. Textile, Pharmaceuticals, Paint, Chemicals, etc.
- ☀ Creation of **common treatment plant** facility for effluent treatment.
- ☀ **Regular monitoring** and prevention of illegal dumping of waste
- ☀ **Regular monitoring** of water quality



Drains polluted with dyes,
Kamakshipalya

LAKE MANAGEMENT STRATEGY PROPOSED

- ☀ Bring all the water bodies under one organization-“**Lake Management Department**”
- ☀ Have a core team of lake managers at State level
- ☀ Have a team of scientists and laboratory facility at State level
- ☀ Make use of the services of Deputy Conservator of Forests (Social Forestry) already available in each district



STRUCTURE OF THE PROPOSED LAKE MANAGEMENT DEPARTMENT

