

## **RAINWATER HARVESTING AND RECHARGING IN THE SALINE COAST IN THE EASTERN INDIA**

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### **1. INTRODUCTION**

In the complex coastal zone of West Bengal in eastern India, a major portion is the Sunderban biosphere and estuarian islands with tidal conditions. Water is generally saline, with increasing sedimentation due to upstream waste and soil erosion, the levels of canals, creeks and estuaries have risen and wide areas are being flooded with salt water intrusion. Sizeable rural population live but access to fresh drinking water is not adequate and waste supply from ground water is getting contaminated and become saline. This has been observed in other parts of the world also as one third of world's urbanisation is on the coastal area.

Rainwater harvesting and recharging of groundwater by rainwater are encouraged and architectural solutions are given in the paper.

### **2. GROUND WATER POLLUTION**

In the coastal area water quality is changing due to untreated disposal of effluents, waste water, shipping discharges, oil spills etc. On the other hand there is increasing salinisation. A number of houses are with septic tanks and seepage is polluting water and there are other reasons of contamination and change in aquifer level is creating many ecological problems in coastal areas. Modern techniques of remote sensing and GIS yet are to be applied.

### **3. HARVESTING AND RECHARGING**

The coastal area has high rainfall (1600-2000 mm) and potentiality of utilising rain water is great. The Govt. of India, Ministry of Urban Development has encouraged recharging and harvesting in the buildings and the paper provides design guidelines.

### **PUBLIC AWARENESS**

Without public participation the project will not be successful. Education and training are essential when rural people in the coastal area does not have enough education. Non government organisations have great role in public awareness campaign, printed materials, displays and exhibits, advertising in print and electronic media, formal and informal sessions and demonstration projects are essential in utilising rainwater.