

FRESHWATER FOR REMOTE VILLAGE IN THE COASTAL REGION

KOUSHIK GHOSH

Architect and Urban Designer, Interdesign International, 220/2 Panditia Road Extension,
Kolkata – 700 029, India. Telefax : 91 33 466 0625

E-Mail: ranajit@cal.vsnl.net.in, koushik_gh@yahoo.com

1. INTRODUCTION

The coastal West Bengal in eastern India has three parts : saline tidal part, Sunderbans and coastal plain. Though some towns are there and two new - one industrial port town and one resort form are growing, most of 3 million people live in remote villages. As the region is deltaic criss-crossed by canals, creeks and estuaries the water supply is a problem because of salinity. Irrigation has been carried out in reclaimed land and by storing rain water. A model for rural water management in Rangabelia in the coastal region, 78 km. southeast of Kolkata is presented here. Technical service of Interdesign has been provided for the last 20 years developing this as generator in integrated rural development.

2. PROJECT COMPONENT

The ponds are a way of life in Rangabelia. It is both a life sustaining asset as well as the cultural meeting ground. It supports a plethora of flora and fauna and helps in maintaining the local biodiversity.

Rangabelia has a number of ponds (water bodies) and there is heavy rainfall. The project activated the ponds. 30% of the site area is covered by ponds. The whole pond system collects about 15000 cum or 15 million liters per annum. Water filtration system is natural with adequate aeration in the open as also much needed sunlight. The host of hyacinths, duckweed and lillies help in limiting turbidity, cleaning the water and maintain low BOD.

The project components include :

- Innovative low cost techniques for water purification for drinking water.
- Water management with rainwater collection ponds and channels using bio-filters.
- Proper and systematic wastewater reuse/treatment.
- Hygienic waste disposal system including composting and digester technology.
- Introduction of low water consumption crops
- Solar energy for hot water and electricity through photovoltaic cells.
- Low cost and innovative construction technology
- Organising local participatory development process.

3. PARTICIPATORY DEVELOPMENT

The project is managed on a systematic basis by local inhabitants. There is participation by women also. Some socioeconomic activities have been planned in the public interest.