

# The Moongrove Garden

*At the tide country where Man meets the Mangroves*

## ABSTRACT

The Bengal delta is an estuary where accumulation of water from different sources, specially precipitation from the Himalayas runs over a flat plain and meets the Bay of Bengal. Before meeting the sea, the rivers have to pass through an archipelago of loam clays and mangroves. There lies the Sundarbans with its protector tigers and crocodiles. The coastal human forest interface of this area is locally called 'The Country of Tides', where the inhospitable saline land of mangrove meets the manmade freshwater landscapes in the fractal matrix of countless rivers and channels that are fed by the moon tides. The research started with an interest to look into how these two types of landscapes meet in terms of land use and cultural practices.

Due to the hostile nature of tide, storm and salinity, people had to create control over the lands for survival. Today the coastal landscape is divided into forests and polders. Usually the divider is a river, canal or a very thin stream of water which is followed parallelly by embankments. People of this land like to be known as the ones who have tides in their blood. May be this is the reason that there are two things in this landscape which cannot be controlled or divided by any lines. One is the people's mythical belief that has evolved through years of suffering in this land of tiger, crocodile and mud. And the other is the tide itself.

The mixed diurnal brackish tide that changes salinity every season shapes landscape of both man and mangrove here. Inside the forest, it creates ecologies of canal, mudflat, ridge and swamp basins where mangroves with knee, stilt, buttress and plunk roots stand. Salinity and local elevation create variation in patch formation by species with different salt tolerances. And in the inland parts, polder embankments are made to control the tides from inundating inland to stop salt water intrusion. In this landscape, water management such as reserving fresh water from monsoon tides, controlling inland canal irrigation and closing the sluice gates based on salinity level needs collective decisions.

On the other hand, the mythical belief of this area has been surprisingly successful in creating a strong communal existence among the Hindu and the Muslim inhabitants. The guardian goddess 'Bonobibi'; according to the belief, was born in Mecca and was sent to this tide country to maintain balance between man and nature. The myth is deeply rooted in the history of early arrival and settling of the Muslim preachers in the Bengal and it is a derivative of people's struggle to survive in a hostile land. This unique belief gives a powerful notion of a space, which ties up two different religions through landscape. The subcontinent has seen examples of Islamic gardens and it also used to have Hindu sacred groves from very past already, but has seen none of it merged into another. When both of the types mentioned can be considered as attempts to mimic heaven or unearthly pleasure, the myth of 'Bonobibi', who belongs to

the land and tide, not in an enclosed temple; consistently sticks to the exchange of dialogue between man and nature in the harsh real world.

When the goddess tries to keep balance between man and mangroves, the rivers still continue to erode and deposit at the polder outsides. Therefore, lands are created in between the rivers and the polders which are in close proximity to the forest and do not have any clear law about who does those belong to. Mangrove tries to migrate into these parts by sending over floating germinated seeds while man tries to take control by creating salt water shrimp ponds.

The project is a garden for the community in one of those 'Lands without an owner', where man meets the mangroves and the goddess without a temple tries to create balance between them sending over the tides.

The site is a natural elbow shaped land which has been used by the small farmers for seasonal rice and shrimp farming. Being in a close proximity to the forest and subjected to regular tidal inundation it has canal, mudflat and ridge structures which are occupied by thick patches of *Nypa* palm, a pioneer species of the mangroves. The basin part is sunken and the lowest elevation is almost equal to river neap tide water level. Tracing satellite images of the local elevation shows a common path of water flow in the inland. The lowest part of the land at the south side is dug and the local dike is breached in the proposal so that the tides can come inside. The tides enter through a mudflat, then goes to a tidal pond through a sluice gate and from there the fresh water and salt water is separated and goes to different destinations.

The embankments guide to public spaces which become gradually more constructed and controlled following the existing shallow slope of the site from south east to northwest. The lowest elevated part's public space is mostly mud and gives an informal expression while the highest elevated part is for more formal gatherings which is more built. The tidal pond works as public space which is in between informal and formal and rest of the land follows existing grid of dikes and become farms. Finally, at the edges, the existing dike becomes a paved walkway and, in some parts, exaggerated shapes of local elevations are planted with patches of mangroves to mimic the ridge morphic ecological profile of the forest.