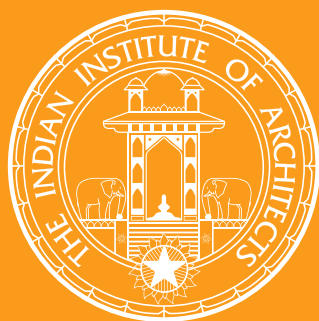




JOURNAL OF THE INDIAN INSTITUTE OF ARCHITECTS
REFEREED JOURNAL OF IIA • ISSN-0019-4913 MAY 2022
VOLUME 87 ▲ ISSUE 05 • RS. 100





IIA NATIONAL AWARDS 2020

FOR EXCELLENCE IN ARCHITECTURE WINNERS

9-10 APRIL 2022

INDIA'S MOST SOUGHT AFTER AWARD IN THE COUNTRY

Hosted by
IIA GOA CHAPTER

IIA NATIONAL AWARDS 2020 FOR EXCELLENCE IN ARCHITECTURE WINNERS

CATEGORY	WINNER	COMMENDATION
Research Papers	Dakshayini R. Patil	Joy Mondal
Public/ Institutional	Bijoy Ramachandran	Murali Murugan
Landscape Project A	Alan Abraham	Varna Dhar
Landscape Project B	Biley Elattuvalappil Menon	-
Residential Project A	James Joseph	-
Residential Projects B	-	Chandrashekar Ganti
Architecture Unbuilt	Hafeef P.K. and Hamid M.M.	-
Interior Design - Non Residential	Deepak Guggari	Ajay Sonar
Interior Design Residential	Ranjit Wagh	-
Conservation Project	Dhananjay Shinde	-
Hospitality & Recreation	Sanjay Puri	R. Latha
Socially Responsible Architect	Nimisha Hakkim	-
Commercial	-	Ajit V. Jain
Industrial / Infrastructure	-	Uday Andhare

IIA Awards Committee 2020-2022

CHAIRMAN	MEMBERS	
Ar. Muralidhar Reddy	Ar. Saiju Mohamed Ar. Antony Morais Ar. Milind Ramani	Ar. B. Suresh Ar. Anmol Rattan Ar. Sateesha S Naduvanamani



Landscape Project B - WINNER

THOLKAPPIA POONGA ECOLOGICAL RESTORATION PROJECT

Chennai

Architect

Biley Elattuvalappil Menon

Idea Design

As an eco-sensitive architecture and landscape design firm, Idea Design focuses on everything one can see, hear, smell, touch and sense. The firm looks to question how physical environments, from open spaces and landscapes, roads and infrastructure, to proposed buildings, affect people. The practice aims to unite function, aesthetics, environmental quality and economic considerations to give their projects a distinctive sense of place and identity.

This Tholkappia Poonga Ecological Restoration Project, initiated by the government of Tamil Nadu, is an environmentally significant project that has become a model for Urban Landscape Ecological Restoration. The project restores 58 acres of the Adyar Creek, which is part of the Adyar Estuary and consists of 350 acres of Adyar River's sea mouth.

The Chennai corporation had used the creek as a garbage dump yard, with several city level storm water and solid waste drains draining into the sea mouth through this patch of land. The area existed in complete neglect, the water PH was acidic, chemical contamination was high and the ecosystem was found to be degraded.



TPERP-before_after



1	Medicinal Plant Garden
2	Sacred Grove
3	Aromatic Garden
4	Child and Mother Care Garden
5	Navagraha Garden
6	Barn Own Point
7	Chelonian Garden
8	Butterfly Garden

LEGEND	
	Tropical Dry Evergreen Forest
	Hillock
	Mangroves
	Mangrove Associates
	Meadows and Grass Lands
	Reeds and Marshes
	Mud Flats

	Fresh Water Pond
	Storm Water Retention Reservoir Wetlands
	Storm Water Inflow
	Brackish Water Wetlands
	Fields
	Farm and Vegetable Garden
	Nursery
	Avenue Trees



INTEGRATING THE POONGA TO THE COASTAL WETLAND

Wetlands are the fundamental component of a coastal landscape. The marshlands, mudflats, mangroves and associated flora & fauna are its components. These are dynamic water systems, which encounter constant interaction of freshwater and saltwater supporting a variety of species in various stages of their life cycle. Adyar creek is one such system, which the master plan proposes to revive and restore into a healthy example of a coastal wetland.

MANGROVES & ASSOCIATES

Mangroves and mangrove associates are considered to be globally endangered and hence their introduction to the park has high conservation value. Mangroves and mangrove associates that are tolerant to inundation and salt, are proposed to be planted in the eastern reaches of the park.



Avicennia



Avicennia sp.



Rhizophora sp.



Thespesia populnea



Sonneratia ciliolata



Sonneratia



Cereus sp.



Sonneratia sp.



Sonneratia



The history and geomorphological evolution of Adyar river and estuary was studied. This included its seasonal behavior, cyclical changes and the impact of urbanization on this eco sensitive area. Various ecosystems of the Coromandel coast were visited by the team for detailed case studies to understand the flora and fauna of freshwater and brackish water ecosystems of the coast. Detailed urban design studies were conducted in the 350 acres of Estuary, which included a baseline survey of the status of the current ecosystem. An ecological site analysis was conducted and detailed assessment of edge conditions were done for the 58 acres of site area. The findings indicated how degraded the ecosystem was, when compared to other estuaries along the coromandel coast.

An ecological restoration plan was therefore devised for 58 acres of the site area. The concept design had to consider city level storm water drains, tidal variations in the brackish water ecosystem of the estuary, managing huge amounts of debris, rubbish and organic waste. A detailed technical plan for ecological restoration was developed. The entire park was divided into a combination of freshwater and brackish

water ecosystems. The plan involved solutions for total water management during storms, tides, spring tides, floods and drought situations.

Large earthen berms were proposed along the periphery of the park to bury all the debris and rubbish below them. This enabled a visual and sound buffer from the surrounding urban edges bringing in much needed privacy that helped in the restoration of plants as well as terrestrial, aquatic and avian fauna.

With the help of the local community, artists and student groups, the estuary was restored into a beautiful oasis with fresh water and brackish water ecosystems, developing its own forests, swamps, mudflats and mangroves. The effort resulted in creating a picturesque ecosystem, with over 100 species of birds and fish, that are seen thriving among countless amphibians, reptiles and small mammals. The Tholkappia Poonga Ecological Restoration project has today become a classic example of a successful urban ecological restoration project in the country.