



## Protection of Coastal Eco Park

An estuarine fish farm was established in 1965 at Keezhamanakudy under the Fisheries Department. However, it was completely destroyed during the 2004 tsunami and later became overgrown with invasive plants.

In 2005, HEAL began restoration work by planting mangrove saplings in the area. In 2013, further efforts were made to clear invasive species and develop a Coastal Eco Park. This park now serves as a space for environmental education and awareness for fishermen, youth, school children, and the general public.

The Tamil Nadu Government later supported the development of the eco park, recognizing its importance in conservation and community awareness.

## The Need

There is a strong need to develop an eco-tourism centre near the estuary to promote the bird sanctuary and mangrove ecosystem. Such a centre can create awareness while also improving livelihood opportunities for local communities.

Facilities like watch towers for bird viewing and boat services for exploring the backwaters are essential. There is also a need to protect migratory and endangered bird species, expand mangrove plantations across the available marshy lands, and remove invasive *Prosopis juliflora*. Clearing sand accumulation at the estuary mouth is equally important to restore the natural flow of water and maintain ecological balance.



## Anticipated Benefits and Impact

The expansion of mangrove cover will provide safe habitats for migratory and endangered bird species. It will also improve the overall estuarine ecosystem and contribute to reducing the effects of climate change.

Fallen leaves from mangrove trees enrich the water and serve as food for fish, thereby increasing fish stock and improving the livelihoods of fishing families. Eco-tourism activities will attract visitors and generate additional income for the local community.

The eco park will function as an educational centre, spreading awareness about marine ecosystems and conservation. It will also help in protecting endangered species such as the *Anguilla* (eel).

In the long run, the mangrove forests will act as a natural protective barrier against disasters like tsunamis, ensuring safety and sustainability for coastal communities.



**Together,  
We Built Resilient Futures**



**CFLI/FCIL**  
Canada Fund for Local Initiatives  
Fonds canadien d'initiatives locales

# Manakudy Estuary Profile



## HEAL

22 C, Scott Nagar, Near Scott Christian College,  
Nagercoil - 629003, K.K. District, Tamil Nadu

✉ [heal\\_m@hotmail.com](mailto:heal_m@hotmail.com)  
[siluvaivasthian@gmail.com](mailto:siluvaivasthian@gmail.com)

☎ +91 9443449943, 8870898141



# Manakudy Estuary

## Profile:

Manakudy is a coastal village located along the West Coastal Road, about 15 km from Nagercoil and 9 km from Kanyakumari, one of the most important tourist destinations in the world. A high-level bridge across the Pazhayar River was constructed here after the 2004 tsunami.

The Manakudy estuary, covering an area of about 145 hectares with a depth of 6 to 10 meters, is the largest estuary in Kanyakumari district, Tamil Nadu. The Pazhayar River, which originates from the Western Ghats, meets the sea at Manakudy, forming a rich and unique estuarine ecosystem.

## Fish:

The rich estuarine fish stock- 38 species of fin and shell fishes of commercial importance are found in the Manakudy estuary. Average fish catch is 80 to 280 kg/day. *Etroplus suratensis* (Pearl spot), *Gerres abbreriates* (milk fish), *Arius maculatus* (cat fish), *Sillago sihama* (silver whitting), *Lates Calcarifier* (sea boss) etc. The 38 fish species shall be grouped as fishes (30), shrimps and prawns (5) and crabs (3). They are resident and transients. The 38 species of fishes are further classified under 13 families and 23 genera.

They provide livelihood to 46 estuary dependent vulnerable fishermen families.

More than 80 wetland bird species are found in Manakudy estuarine system. These birds belong to about 50 genera and 20 families, exhibiting a high degree of avifaunal diversity. Prominent among them is gorgeous Greater Flamingo.



## Birds

Manakudy estuary is home to more than 80 species of wetland birds belonging to around 50 genera and 20 families, reflecting a high level of bird diversity. One of the most attractive species is the Greater Flamingo, which draws visitors and bird watchers.

Other birds include; Dabchick, two species of Pelicans, three species of Cormorants, Snake Bird, over ten species of Egrets and Herons, Open bill Stork, Painted Stork, Spoonbill, Black Ibis, Glossy Ibis, Blockheaded Ibis, Plovers, Sandpipers, Black winged Stilt, Gulls, Terns, Kingfishers and Wagtails. Manakudy Estuary is declared as the "Estuary Birds Sanctuary" by Tamilnadu Government in 2012.

However, the estuary is facing a threat from the following sources;

## Threat

Despite its ecological richness, the estuary is facing serious threats. The uncontrolled growth of *Prosopis juliflora*, an invasive species, is damaging the natural ecosystem by destroying native vegetation. The disposal of solid waste, especially plastic, by tourists and local people is polluting the water and affecting fish populations.

In addition, coir retting units around the estuary release toxic effluents known as ret liquor, which contain hydrogen sulphide. This reduces oxygen levels in the water and leads to a decline in fish stock. Another major concern is the blocking of the estuary mouth by sand deposits. This prevents the natural mixing of seawater and freshwater, which is essential for maintaining salinity levels required for fish breeding and survival.



## Our Conservation Efforts

In 1992, Dr. G. Santhana Kumar, an environmental scientist and Vice President of HEAL, initiated the planting of around 10,000 mangrove saplings on the western side of the estuary with the support of the local community. Over time, this effort has grown into a dense mangrove forest that now provides habitat for birds and other species.

Since 2005, HEAL has been actively working to improve the estuarine ecosystem by creating awareness among local communities about the importance of mangroves and their role in protecting livelihoods and reducing disaster risks. Community members were trained to collect mangrove propagules and raise nurseries using an eco-friendly method that ensures high survival rates. With community participation, around 20,000 *Rhizophora* saplings and 30,000 *Avicennia* seeds were planted along the estuary banks. A reed bed treatment system was introduced to treat polluted water from coir retting units using natural filtration methods. Plants such as *Typha* and *Cyper* help absorb harmful substances and reduce pollution.

Efforts were also made to sensitize 22 coir retting unit owners about environmentally friendly practices. Youth groups were formed and motivated to protect the estuary and prevent damage to mangroves. A Kayal Development Committee with 17 members was established to monitor and safeguard the estuary

## Swadesh Darshan Government of India

HEAL submitted a proposal to the Tourism Department of the Government of India to develop Manakudy estuary as an eco-tourism destination under the Swadesh Darshan Scheme. The project was approved in 2017 with a funding support of ₹3.27 crore. The initiative aims to promote eco-tourism while ensuring conservation of the natural ecosystem.