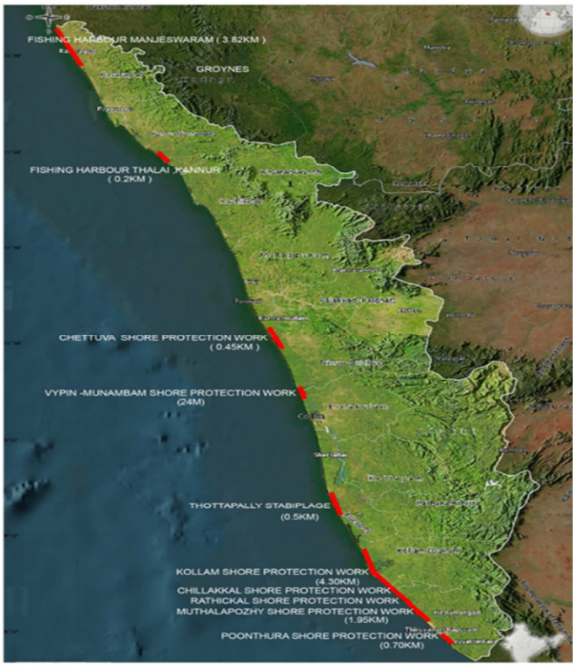
Shore Protection Works

- About 590 km shoreline distributed among 9 coastal districts
- Coastal erosion has become one of the most alarming threats in varying pockets
- Shoreline analysis suggests that 46% of coast is eroding, 23% is accreting, 31% is in stable
- KSCADC put forward suitable mitigation schemes to arrest/minimize the coastal erosion along the Coastal stretch of Kerala.

Location	District	Type of structure	Length (m)
Manjeswaram	Kasargode	Groyne	3820
Thalai	Kannur	Groyne	200
Chettuva	Thrissur	Groyne	450
Kollam- Thanni	Kollam	Groyne	4300
Muthalapozhy	Trivandrum	Groyne	1950
Poonthura	Trivandrum	Offshore breakwater	700
Valiyathura	Trivandrum	Offshore breakwater	425
Shangumugam	Trivandrum	Offshore breakwater	850
Thottaplly	Alappuzha	Stabiplage	500
Vypin- Munambam	Ernakulam	Groyne	2400

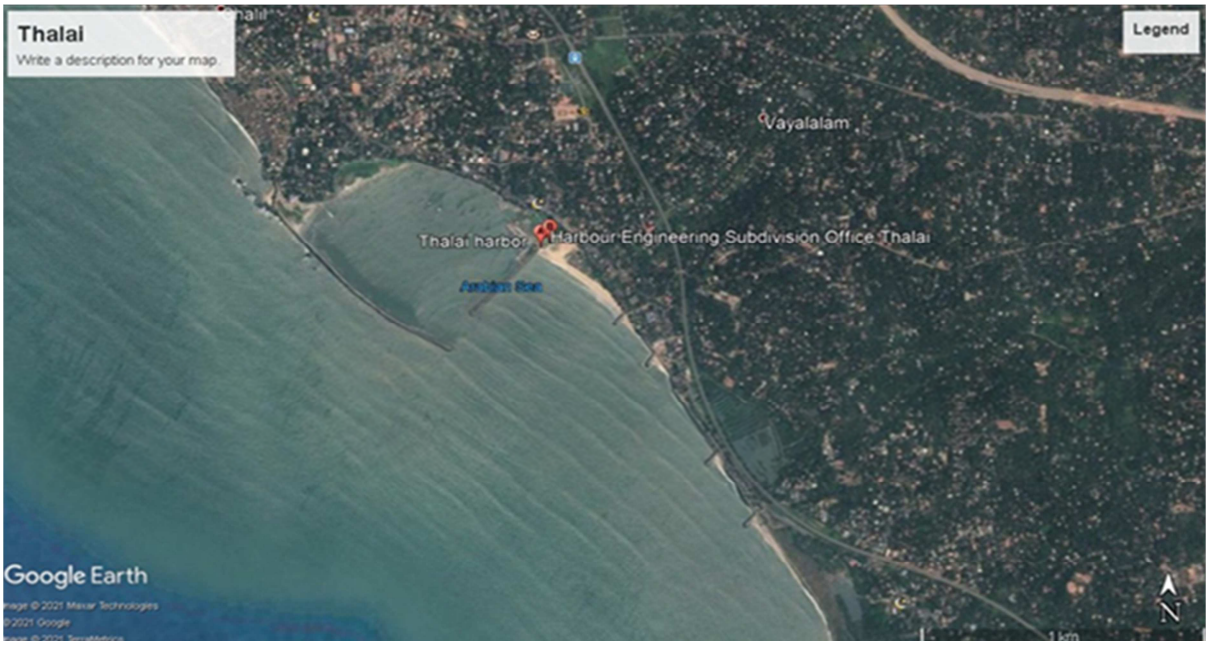


Shore Protection works at Manjeswaram, Kasargode

Total Outlay - Rs. 12.67 crore
Funding - KIIFB

Shore Protection works at Thalai, Kannur

Total Outlay - Rs. 2.93 crore
Funding - KIIFB

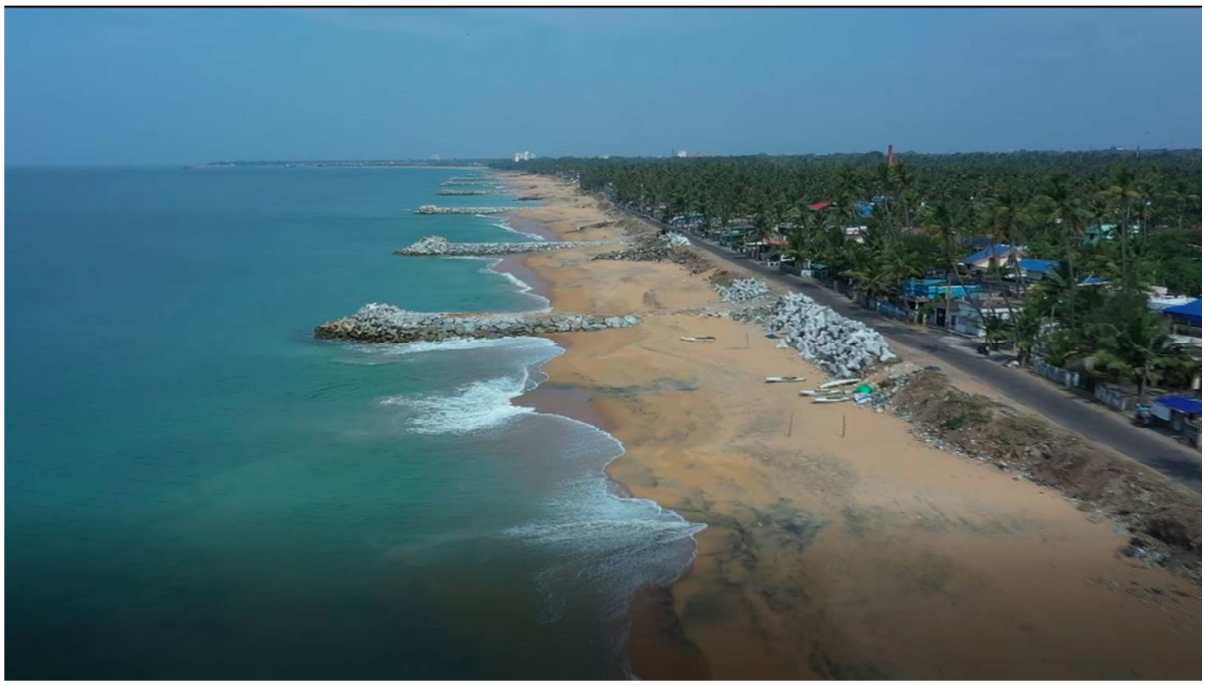


Shore Protection works at Chettuva, Thrissur

Total Outlay - Rs. 7.14 crore
Funding - KIIFB

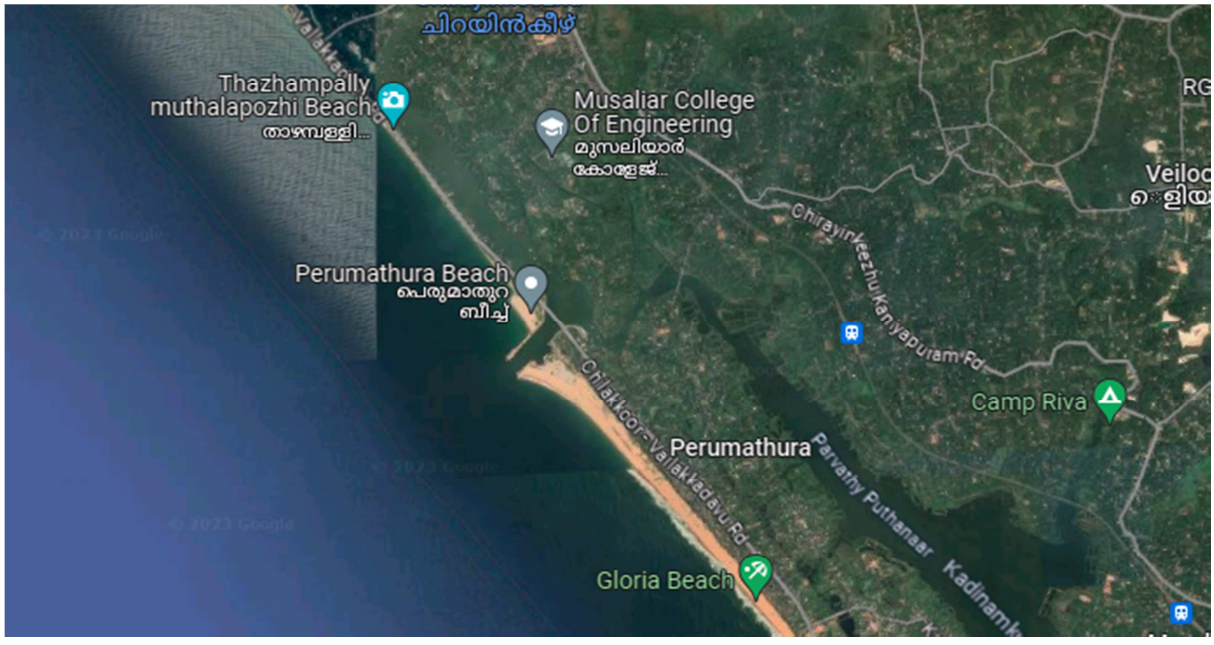
Shore Protection works at Kollam, Thanni, Kollam

Total Outlay - Rs. 42.19 crore
Funding - KIIFB



Shore Protection works at Muthalapozhy, Trivandrum

Total Outlay - Rs. 49.65 crore
Funding - KIIFB

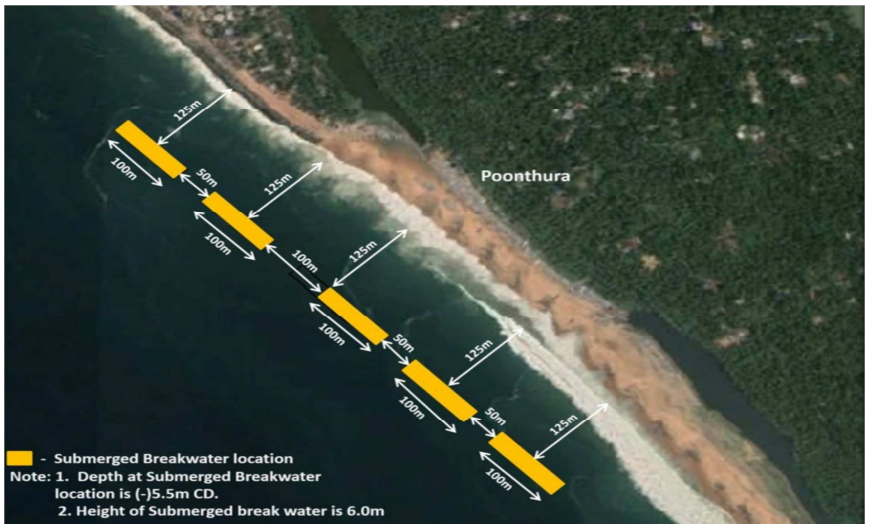


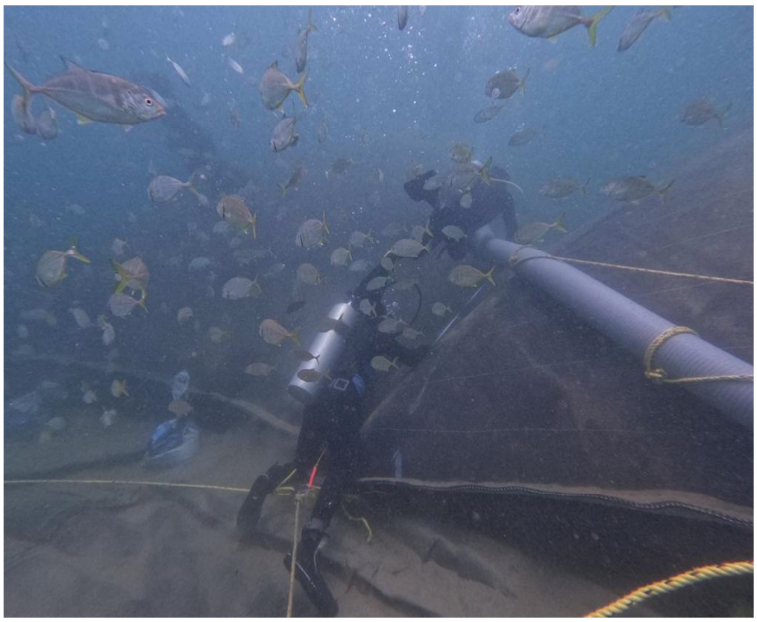
Innovative Approaches to Coastal Protection

Offshore Breakwater Construction at Poonthura in Trivandrum District

Total Outlay - Rs. 20.78 crore
Funding- KIIFB

- Ground breaking innovative & sustainable approach that circumvents the use of rocks.
- Technology conceived by NIOT.
- Customized poly propelene geotubes
- 3 layers of geotubes, each with a circumference of 15m, are slated for placement on the 6m deep seabed, running parallel to the shore at a distance ranging from 80 to 120 m.
- Strategically placed Offshore breakwaters act as an effective barrier diminishing the strength of oncoming waves.
- This environment friendly approach benefits both local fishermen and tourists, presenting a holistic solution to coastal protection

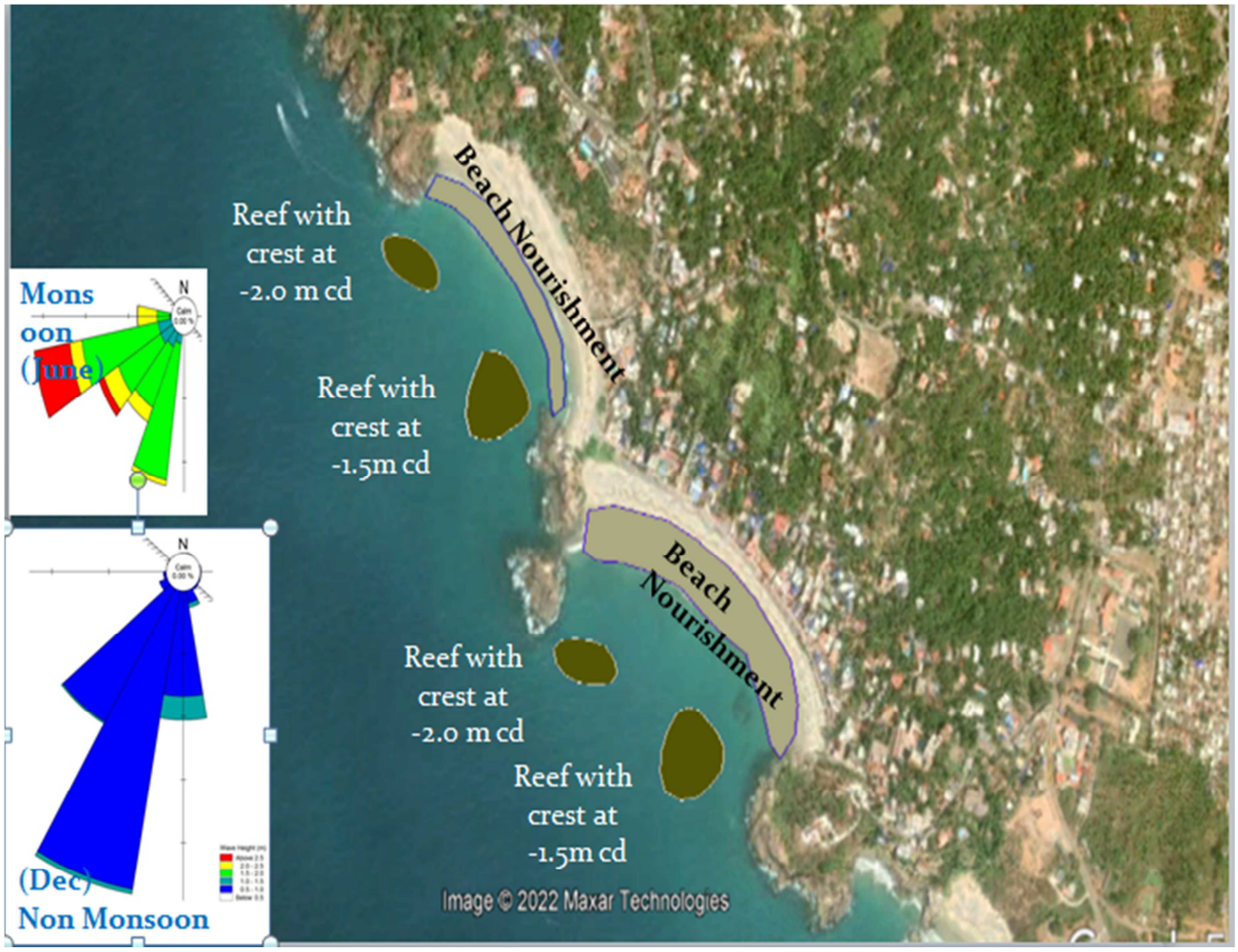




Beach Formation at the shore side of Breakwater stretch

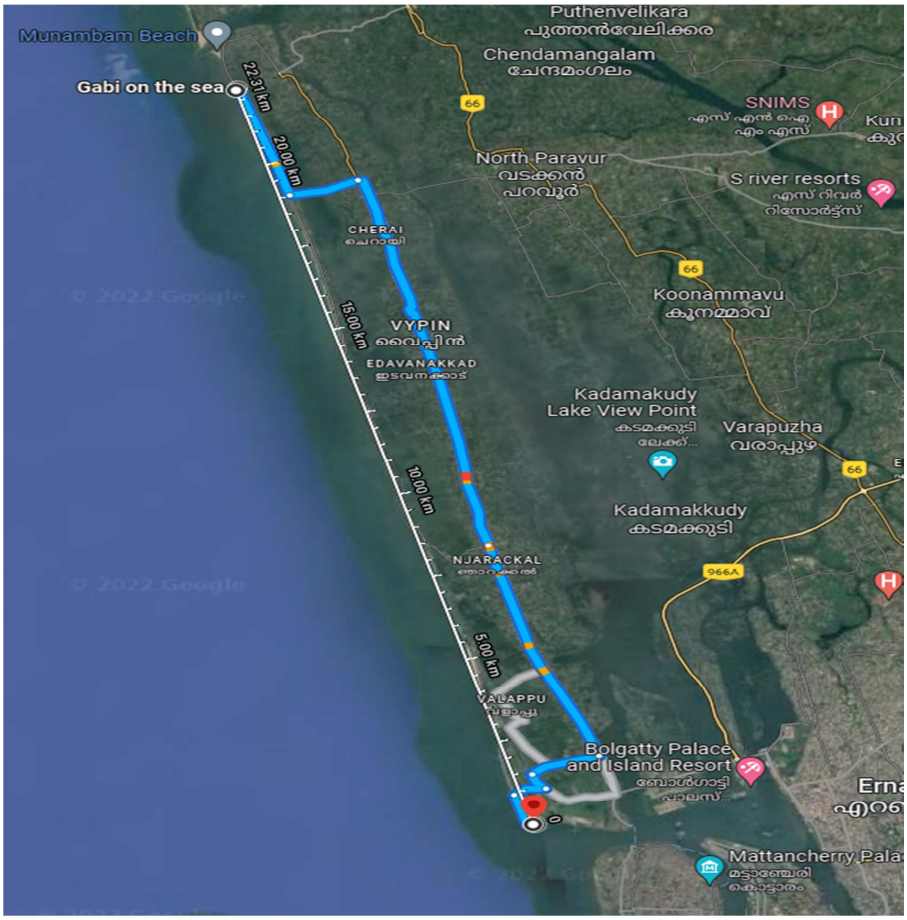
Kovalam Beach during Various Seasons

- Each bay will be protected by two offshore submerged reefs with geotubes along with Beach Nourishment.
- Northern reef will be small with crest level about -2m cd.
- The Southern reef will be large with crest about -1.5m.



Shore Protection along Vypin-Munambam coastal stretch

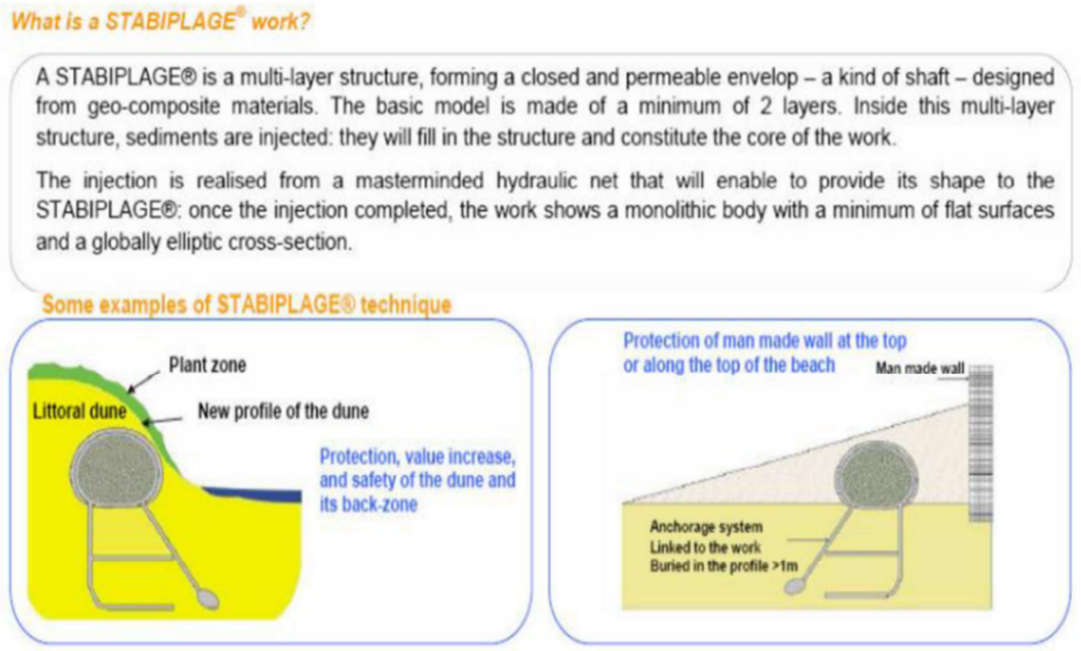
- Groynes, Seawall strengthening, Offshore breakwater
- Valappu beach, Zaid Muhammed beach, Pazhangadu, Velyathamparambu, Puthenkadappuram
- Approximate Cost: Rs.250 Cr

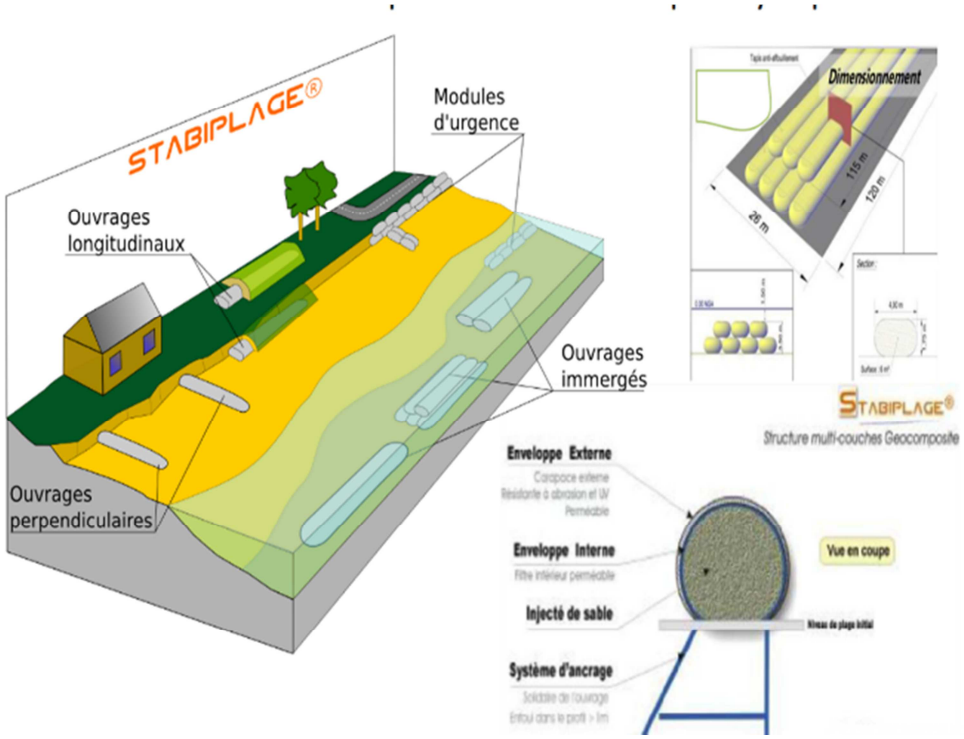


STABIPLAGE" Shore protection technology at Thottapally, Alappuzha (French Government). (Rs. 6.00 Crore)

- EspacePur' propose to construct pilot project in Thottapally with grant assistance from FASEP fund sanctioned by Ministry of Finance Government of France

- With the FASEP grant and support from Kerala government in the form of data and local resources, a Soil Erosion Engineering project in Thottappally with patented technology STABIPLAGE® is planned



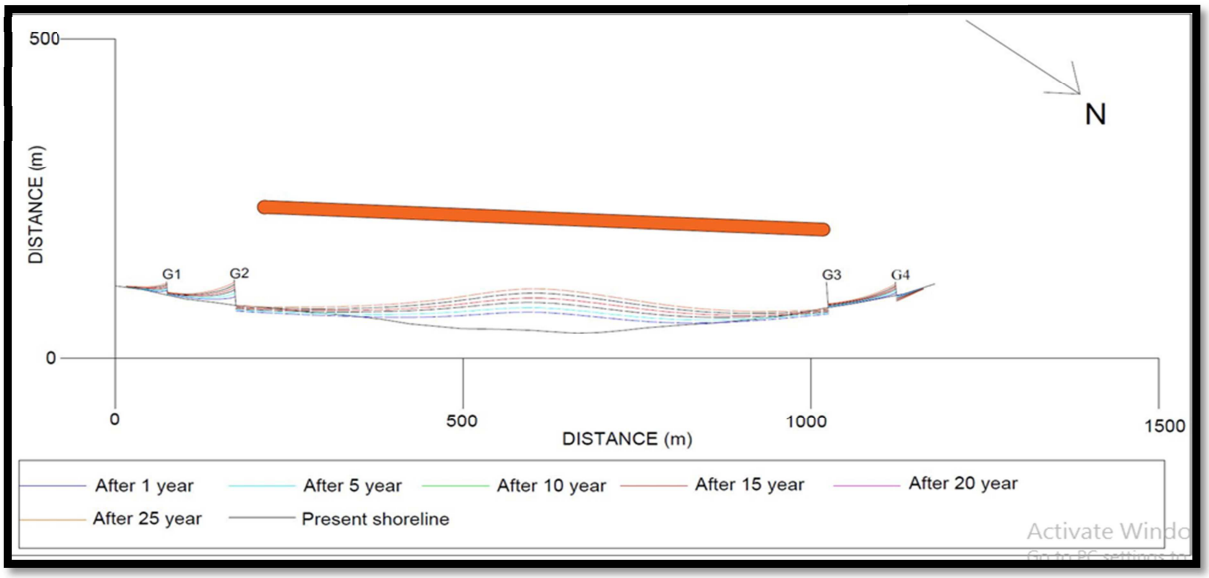


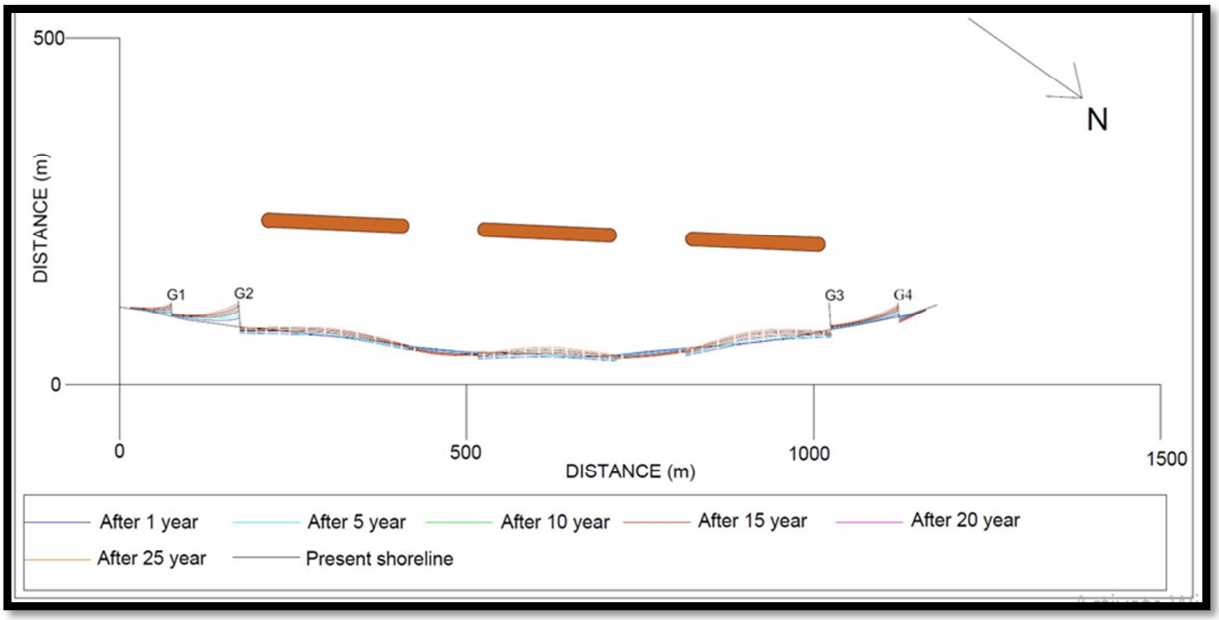
Sustainable Development Plan for Kollam Beach

Client : Kollam Corporation

The specific objectives of the work are as below:

1. Study the impact of waves on the shoreline of a specific stretch of the Kollam coast.
2. Develop and design shore protection measures to reduce the wave effects on the Kollam beach while ensuring the safety of tourists.
3. Forecast the future shoreline changes if the proposed protection schemes are implemented.
4. Design detailed sections of the proposed shore protection measures.





Shoreline Evolution