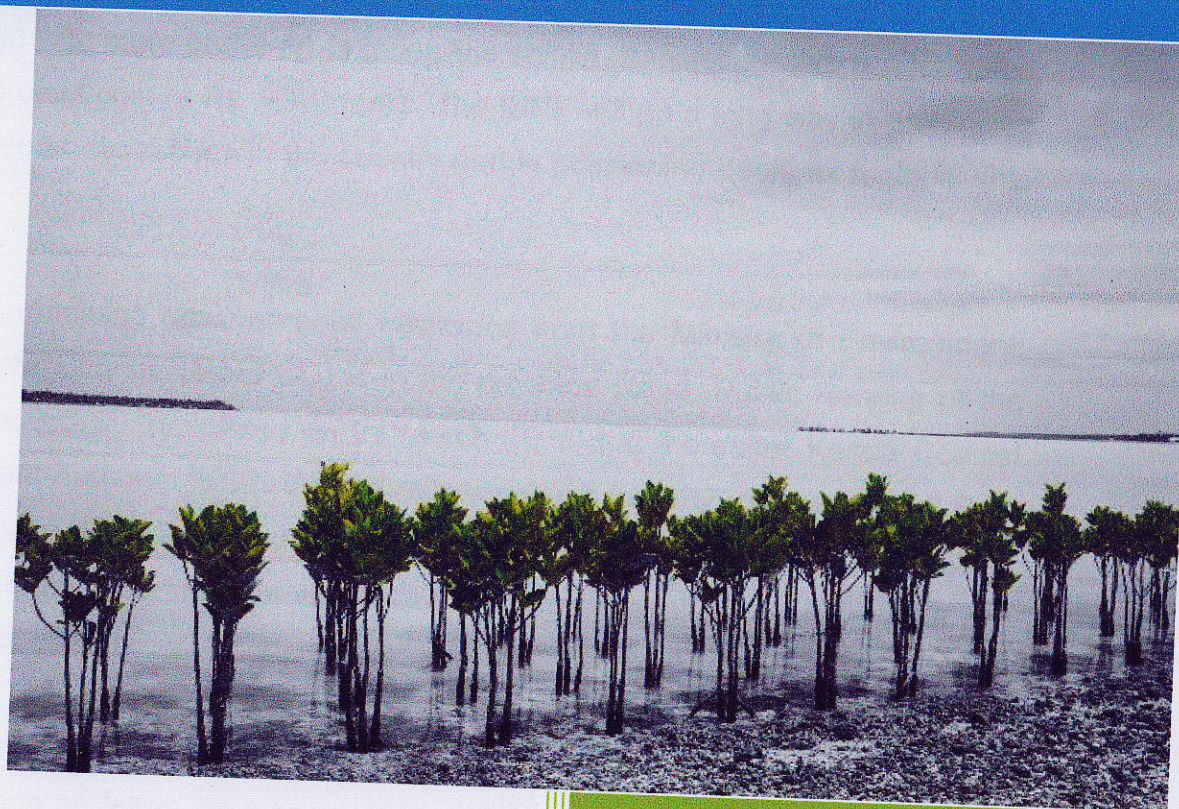


# Compensatory Mangrove Afforestation Proposal of M/s Cochin Shipyard Limited.



**Infra Projects Department**

**Cochin Shipyard Ltd.**

**Kochi – 682015**

**Dated: 17 Aug 2016**



**Project for Compensatory Mangrove Afforestation in connection with  
International Ship Repair Facility project of M/s Cochin Shipyard Limited**

**Background:**

Cochin Shipyard Limited (CSL), a category-1 miniratna company fully owned by Government of India, under Ministry of Shipping is the largest and the most modern ship building and ship repair yard in India. Recently, CSL had taken over the existing marine workshop facility of Cochin Port Trust (CoPT) located at Wellington Island, Kochi for a lease period of 30 years. CSL intends to set up an International Ship Repair Facility (ISRF) equipped with state of the art facilities like shiplift, transfer system & associated facilities for a project cost of Rs. 970 crores. The ISRF will go a long way in enhancing high end ship repair capabilities in the country and in positioning Kochi as a global ship repair hub.

The process of obtaining environmental clearance from the Ministry of Environment, Forests & Climate Change (MoEFCC) is in the advance stage. Public Hearing of the project was successfully completed on 24 March 2015 and thereafter Kerala Coastal Zone Management Authority (KCZMA) had recommended for CRZ clearance on 7 Sept 2015. In this connection, CSL had applied for National Board of Wild Life (NBWL) clearance and Forest Clearance through MoEFCC online portal on 24 June 2016 and 27 June 2016 respectively.

In connection with the development of ISRF project, 15 nos mangroves located in the project area need to be felled. As a compensatory measure and in line with the Govt. of Kerala orders, it is proposed to carry out compensatory mangrove afforestation by planting 150 nos mangrove saplings.

**Site Information:**

Cochin is located on the South-west coast of India in the state of Kerala. The project site is located in the eastern side of Mattancherry channel, Wellington Island in



Thoppumpady Village, Kochi Tehsil of Ernakulam district in the state of Kerala. The site is located between 9°56'55.61"N, 76°16'0.99"E and 9°56'21.62"N, 76°16'12.19"E.

There exists two small isolated mangrove patches in the project area having spread area 92.8 sq. M & 93.8 sq. M. These mangroves (15 nos. plants in total) may have grown due to the sediment deposit near to the slipway area where quay wall is not present. The species of mangroves are *Acanthus Illicifolius* and *Rhizophora sps.* No threatened category of flora species as per the International Union for Conservation of Nature and Natural Resources (IUCN) exists at the project area.



**Fig-1: View of mangroves in the project area**

Social Forestry Dept had carried out the site inspection during Feb 2015 and recommended for 5 times mangrove afforestation at budgeted cost of Rs. 21,250/-. Letter issued by Social Forestry Dept dated 4 Feb 2015 is placed as **Annexure-1**.

#### **CSL Proposal for Compensatory Mangrove Afforestation:**

In line with Govt. Orders, CSL had identified **Brackish Water Fish Farm under Matsyafed at Malipuram** to carry out the compensatory mangrove afforestation. Concurrence letter issued by Farm Manager is placed at **Annexure-2**.





**Fig-2: Photos of Malipuram Fish Farm**

The proposal is to plant 150 mangrove saplings along the outer bund of fish farm and Mangrove Park at a spacing of 1 M.



**Fig 3 – View of Google map showing aerial distance from project site to Malipuram fish farm**





**Fig 4 – View of Malipuram fish farm**

The proposal includes the following:

- Planting of 150 nos. mangrove saplings
- Awareness classes to local residents
- Distribution of fingerlings to local residents
- Distribution of incentives to local residents

**Species proposed to be planted:**

- Rhizophora Mucronata
- Bruguiera Gymnorrhiza

**Estimate for Mangrove Afforestation:**

SI No.	Description	Quantity	Cost in Rs.	Total Cost
1	Mangrove Saplings	150	Rs. 60 / sapling	Rs. 9000/-
2	Habitat Improvement	LS	Rs. 20,000/-	Rs. 20,000/-
3	Planting Cost	150	Rs. 90 / sapling	Rs. 13,500/-
4	Signages	LS	Rs. 10,000/-	Rs. 10,000/-
5	Maintenance Cost for 3 years	150	Rs. 40 / sapling / year	Rs. 18,000/-



6	Awareness Classes	LS	Rs. 30,000/-	Rs. 30,000/-
7	Distribution of Fingerlings to local community	LS	Rs. 20,000/-	Rs. 20,000/-
8	Distribution of incentives to local residents for mangrove preservation	LS	Rs. 10,000 / year	Rs. 30,000/-

**Grand Total: Rs. 1,50,500/-**

The total cost of the project is Rs. 1,50,500/- (Rupees One Lakh Fifty Thousand Five Hundred)

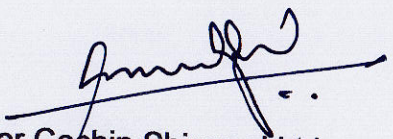
**Implementation:**

It is proposed to carry out the compensatory mangrove afforestation in association with Social Forestry Division, Ernakulam. All expenses in this regard will be borne by CSL.

**Monitoring & Evaluation:**

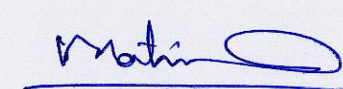
Monitoring & Evaluation will be carried out by the higher officials of Social Forestry Division, Ernakulam and Cochin Shipyard Ltd.

Yours Faithfully

  
For Cochin Shipyard Ltd.

एल्डो जॉन  
**ELDHO JOHN**  
महा प्रबंधक  
General Manager  
कोचीन शिपयार्ड लिमिटेड  
Cochin Shipyard Ltd.  
कोच्ची / Kochi - 682 015

Certified that area identified for CA is  
suitable for mangrove planting

  
K.S. Mathi Khand.