**BRIEF SUMMARY**

**1.0 BACKGROUND AND INTRODUCTION**

Andhra Pradesh having a coastline of 974 kilometres, continental shelf area of 33,227 km² spread over nine districts and supports a rich fishery constituted by several groups of fishes, crustaceans, molluscs and other marine organisms. Andhra Pradesh ranks first in coastal fish production via aquaculture and freshwater aquaculture in the country. The total fish production of Andhra Pradesh for year 2017-18 is around 34.50 Lakh Tonnes (which includes 28.45 lakh tonnes of inland fish production and 6.05 lakh tonnes of marine fish production).

It is to be noted that, due the absence of appropriate fishery harbour facilities or limited facilities available at very few locations, Andhra Pradesh has been lagging behind in terms of marine fish production. Further, fishing being one of the major sources of livelihood in Andhra Pradesh and due to the absence of appropriate fishery harbour facilities, substantial amount of migration is taking place to other coastal states such as Gujarat etc.

With an objective of promoting Fishery industry in the state, Government of Andhra Pradesh (GoAP) has decided to develop about eight fishery harbours within the state. Biyyaputhippa is one of the eight proposed fishery harbours located in West Godavari district; the same harbour will also have facility for Cargo handling.

The proposed location in Biyyaputhippa village is a green-field one situated on open coast, 3 kilometres south-west from Vasistha Godavari River. Approximately 150 acres of land will be required for the proposed project including backup area along the harbour.

**2.0 ALTERNATIVE ANALYSIS**

For the development of proposed project, 5 alternative sites have been studied which are as follows:

Alternative – 1: Within Nalli Creek, southern bank of Vasistha Godavari River
Alternative – 2: At the mouth of Vasistha Godavari River.
Alternative – 3: Sea/ Coastal Side of Bay of Bengal, 3 km from river mouth.
Alternative - 4: Sea/ Coastal Side of Bay of Bengal, 5 km from river mouth.
Alternative – 5: Development of Harbour at Perupelam Beach.

Based on the detailed Multi Criteria Matrix analysis, the Site Location Alternative- III is found as most feasible for development of Fishery Harbour cum Cargo Berths. Coordinates of proposed site are as follows:

**Table 1: Coordinates of Proposed Site**

<table>
<thead>
<tr>
<th>Description</th>
<th>Location of the Peripheral points</th>
<th>Latitude (North)</th>
<th>Longitude (East)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landside Part</td>
<td>P1</td>
<td>16°19'59.33&quot;N</td>
<td>81°40'48.24&quot;E</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>16°19'47.87&quot;N</td>
<td>81°41'8.05&quot;E</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>16°19'52.94&quot;N</td>
<td>81°41'11.13&quot;E</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>16°19'37.43&quot;N</td>
<td>81°41'38.17&quot;E</td>
</tr>
<tr>
<td></td>
<td>P5</td>
<td>16°19'26.61&quot;N</td>
<td>81°41'31.53&quot;E</td>
</tr>
<tr>
<td></td>
<td>P6</td>
<td>16°19'35.91&quot;N</td>
<td>81°41'14.01&quot;E</td>
</tr>
<tr>
<td></td>
<td>P7</td>
<td>16°19'33.96&quot;N</td>
<td>81°41'12.79&quot;E</td>
</tr>
<tr>
<td></td>
<td>P8</td>
<td>16°19'39.62&quot;N</td>
<td>81°41'2.93&quot;E</td>
</tr>
<tr>
<td></td>
<td>P9</td>
<td>16°19'51.08&quot;N</td>
<td>81°40'43.12&quot;E</td>
</tr>
<tr>
<td>Water Side part</td>
<td>South end of North Breakwater</td>
<td>16°19'21.03&quot;N</td>
<td>81°40'26.44&quot;E</td>
</tr>
<tr>
<td></td>
<td>South end of South Breakwater</td>
<td>16°19'27.87&quot;N</td>
<td>81°40'34.11&quot;E</td>
</tr>
</tbody>
</table>
3.0 NEARBY ESTABLISHMENTS

As per the site assessment and site investigations, no major establishments have been found. The impact area identified has less dense population zones with scattered villages. In addition, the project location does not have any major industrial or commercial activity, which releases air and water pollutants.

4.0 TRAFFIC

The proposed fishery harbour’s projected capacity in initial year is 3,128 TPA and after 20 years of operation the maximum fish landing capacity would be 20,088 Tonnes Per Annum (TPA). Thus, the design capacity of the fishery harbour will be 20,088 TPA.

The Cargo traffic to be handled in Phase-I (Yr 2034) is estimated to be about 1.6 million TPA and about 3.1 million TPA in Phase 2.
5.0 CONNECTIVITY

5.1 Road Connectivity
The highways formerly numbered as NH 214 and 214A were merged together and renumbered as NH-216. It starts from NH-16 junction at Kathipudi and passes through Kakinada, Amalapuram, Digamarru (Palakollu), Narsapur, Machilipatnam, Bapatla, Chirala before it joins NH-16 again at Ongole. MDR/ state roads connecting project site with this highway at Narsapur.

5.2 Rail Connectivity
The nearest railway station of the project site is Narsapur. This railway line is a loop line Vijayawada – Narsapur – Bhimavaram – Nidadavolu under Vijayawada division of South-Central Railway (SCR). The railway line is undergoing conversion and electrification to double lane.

6.0 PRELIMINARY PLANNING AND DESIGN

The Proposed Capacity for the fishery harbour is 20,088 Tonnes Per Annum (TPA), whereas, proposed capacity of cargo handling facility shall be 1.6 million tons per annum in Phase-1. Total land requirement for fishing harbour backup area is about 50 Acres; land required for landside part of cargo handling facility is about 100 acres.

Figure 3: Layout Plan of Proposed Fishery Harbour with Cargo Berths
7.0 UTILITIES

7.1 Water
About 450 & 550 KLD of fresh water requirement is envisaged for the Fishing harbour and Cargo facility, whereas 150 KLD of saline water is required for washing requirement of berth area. The water demand shall be met from the Andhra Pradesh water supply/irrigation department connectivity.

7.2 Power
The estimated power demand for the proposed port is about 1.5 MVA for taking all the requirements of power for harbour operation and illumination of the harbour area.

The power will be received from the State Electricity Board in the Main Substation. A 11/33 kV substation will be developed with the harbour area to tap the power from grid source.

7.3 Solid Waste
The solid waste generated from the harbour activities will be disposed off in scientific manner to secured landfill through the Municipal Solid waste management facility available at close proximity and hazardous waste shall be transferred to authorised recycler or TSDF facility as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

7.4 Liquid Waste
Sewage (Domestic effluent) generated during construction phase / operational phase will be treated in Sewage Treatment Plant. The estimated waste generation quantity is about 360 KLD and 440 KLD from fishery Harbour and cargo facility respectively and shall be treated in Bio-digester tank (CESTP). The treated effluent will be utilized for Flushing, Washing the harbour backup area, floors of warehouses, arboriculture, Horticulture/ landscaping purposes after attaining all the parameters within the permissible limits of CPCB/SPCB.

8.0 ENVIRONMENTAL AND SOCIAL ASPECTS

Based on the detailed site reconnaissance survey, following are the observations relating to environmental and social aspects:
- The proposed land is a clean barren beach devoid of vegetation, structures and habitation where the harbour is proposed.
Proposed development of Fishery Harbour with Provision of Cargo Berths at Biyyaputhippa, Andhra Pradesh

**Brief Summary**

- The site is a flat to very slightly undulated barren land.
- There is no historically important or cultural heritage site within 10 km radius.
- There are no endangered species of flora and fauna found within core area and 10km radius during reconnaissance survey.
- There is no mangrove vegetation area identified within the proposed harbour Area.
- Area proposed for the Harbour activities is about 150 acres; socially there is no much disturbance. Back up land is devoid of structures and human habitation.

**9.0 COST ESTIMATION**

Based on the planning and design parameters, the estimated cost of proposed project (Fishery Harbour and Cargo Berth and Back-up area together) is about Rs. 667 Crores.

**10.0 PROJECT BENEFITS**

Apart from the future growth from economic considerations, the project has considerable benefits from the point of view of social cost benefit perspective. The project is coming up in the undeveloped/underdeveloped area of Biyyaputhippa and Vemuladeevi, Chinnalanka villages, situated in West Godavari district and nearby area is economically backward due to its remote location and non-existence of any industry in the vicinity.

The proposed project will have positive impact on social and economic improvement of the region by overall improvement in living standard through creation of about 10,000 new direct and indirect job opportunities, increase in volume of general trade, general improvement in infrastructural facility with better transport and communication network.

**11.0 CONCLUSIONS**

- Fishery Harbour and Cargo berths development is a permitted activity as per Sector 7(e) of EIA Notification 2006 and its amendments thereof.
- Coastal Regulation Zone Clearance is to be obtained along with Environment Clearance.
- No mangrove patch is found within the envisaged port area of coastline in Bay of Bengal.
- No endemic and endangered species of flora and fauna reported within 10 km of the Port area during reconnaissance survey. Detailed ecological study will be conducted during EIA and Baseline study.
No Historical or Cultural Heritage Site or Ecologically sensitive area found within 10 km radius of the proposed development of Fishery Harbour.

As per the Feasibility Assessment, the project is found to be viable from all aspects such as technical, economic, environmental and social aspects.