Development of Greenfield port at Machilipatnam, Krishna District, Andhra Pradesh

NOTE:

With respect to the 247th EAC meeting held on 24.11.2020 for **Development of Greenfield Non-major Port at Machilipatnam**, Krishna District, Andhra Pradesh by M/s. Andhra Pradesh Maritime Board - **Terms of Reference** scheduled **as Sl. No. 3.13,** the committee sought for the following additional details

1. KML file for all major ports along the states coast line
2. KML file for the proposed port vis-a-vis KML file for Bhavanapadu port
3. KML file for the 3 alternative sites and Commercial viability of the port and
4. Details on Ministry of Port's approval for the project

ADS was raised in Parivesh Portal by the Member Secretary on 05.12.2020 to upload the above mentioned points for which only provision to upload a single PDF file was provided.

As there was no provision for uploading KML files, we herewith submit the other details in PDF format and circulate all the details (along with KML files) to the EAC Members through mail.

In this regard, we request your honour to consider our proposal for the upcoming EAC meeting to issue Terms of Reference.

ANDHRA PRADESH MARITIME BOARD

+91 9959145777
Email:

N.P. RAMAKRISHNA REDDY
CHIEF EXECUTIVE OFFICER

Port Administrative Building
Beach Road, P.B.No.11,
KAKINADA -533 007

Date: 21.12.2020

To,

The Member Secretary,
Expert Appraisal Committee (INFRA-2),
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aligunj,
New Delhi -110 003.

Sir,

Sub : AP Maritime Board - Development of Greenfield Non-Major Port at Machilipatnam - Submission of information sought by 247th EAC Meeting Dt. 23rd - 24th November, 2020 for the project - Reg.

Ref : Proposal No IA/AP/MIS/177730/2020 and File No 10-62/2020-IA.III.

OOO

I wish to inform the Member Secretary, Expert Appraisal Committee (Infra-2), Ministry of Environment, Forest & Climate Change (MoEF & CC) that the Andhra Pradesh Maritime Board has applied for CRZ & Environmental Clearance for the proposed "Development of Greenfield Non-Major Port at Machilipatnam". During the 247th meeting of EAC, the committee deferred the proposal for the requirement of the following information for further consideration.

i) KML file for all major ports along the states coast line
ii) KML file for the proposed port vis-à-vis KML file for Bhavanapadu Port
iii) KML file for the 3 alternate sites and Commercial viability of the Port and
iv) Details on Ministry of Port's approval for the project.

In Compliance to the Minutes of the 247th meeting of the Expert Appraisal Committee (Infra-2) held on 23rd - 24th November, 2020 regarding Agenda No. 3.13

i.e. Development of Greenfield Non-Major Port at Machilipatnam, Krishna District, Andhra Pradesh , the information sought by the Committee, is submitted herewith for favour of kind consideration.

In reply to point no. (i), the KML file for all major ports along the states coast line is enclosed as **Annexure-A**.

In reply to point no. (ii), the KML file for the proposed port vis-à-vis KML for Bhavanapadu Port is enclosed as **Annexure-B**.

In reply to point no. (iii), the KML file for the 3 alternate sites and Commercial viability of the Port is enclosed as **Annexure-C**.

In reply to point no. (iv), Details on Ministry of Port's approval for the project, it is submitted that Indian government has a quasi-federal structure, and according to its constitution, maritime transport is to be administered by both the Central and the State governments. While the central government's Ministry of Ports, Shipping & Waterways administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states of Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamilnadu and West Bengal.

Since about more than 90% of India's trade by volume is conducted via the country's maritime route, there is a continuous need to develop India's ports and trade related infrastructure to accelerate growth in the manufacturing industry and to assist the 'Make in India' initiative. As per the studies conducted under the Sagarmala Programme, it is expected that by 2025, cargo traffic at Indian ports will be approximately 2500 MMTPA while the current cargo handling capacity of Indian ports is only 2400+ MMTPA. A roadmap has been prepared for increasing the Indian port capacity to 3300+ MMTPA by 2025 to cater to the growing traffic. This includes port operational efficiency improvement, capacity expansion of existing ports and new port development.

The coast line of Andhra Pradesh is 974 KMs, the 2nd longest in the country and is studded with (16) non-major ports (one Major Port at Visakhapatnam). Of the above, the Kakinada Deep Water Port, Krishnapatnam Port and Gangavaram Ports

are developed. In the meantime Visakhapatnam-Chennai Industrial Corridor (VCIC), which is a key part of the East Coast Economic Corridor (ECEC), India's first coastal corridor has been notified. The corridor traverses nine districts of the state of Andhra Pradesh. In the scenario, Government of Andhra Pradesh is keen in developing the following four non-major ports, to cater to the increasing demand of various types of bulk and container cargo etc. which may likely to handle 300-350 Million tons per annum by 2024-25;

1. Bhavanapadu Port in Srikakulam district;
2. Kakinada Port in East Godavari District;
3. Machilipatnam Port in Krishna District; and
4. Ramayapatnam Port in Prakasham District.

After the commencement of the Andhra Pradesh Maritime Board Act, 2018 (Act No. 16 of 2019), the Government of Andhra Pradesh, by notification established a Board called "Andhra Pradesh Maritime Board". The said Act applies to all non-major ports in the State of Andhra Pradesh (Copy of the Act is enclosed as **Annexure-D**). Since, Machilipatnam Port is a non-major (minor) port, which administers by the Andhra Pradesh Maritime Board only. The Government of Andhra Pradesh vide G.O. Ms. No. 14, Infrastructure & Investment (Ports-I) Department, Dt. 09.11.2020 approved the Detailed Project Report and Administrative sanction to take up Phase-1 works of Machilipatnam Port in Krishna District, with total project cost of Rs. 5835 crores by the Andhra Pradesh Maritime Board (Copy of the G.O. is enclosed as **Annexure-E**).

In view of the compliance of the information sought by the Hon'ble EAC (Infra-2), it is requested to consider the proposal in the next EAC meeting and recommend Terms of Reference (ToR) for the proposed development of Greenfield Non-Major Port at Machilipatnam.

Encls: As above.

Yours faithfully

N.P. Ramakrishna Reddy 21/12

(N.P. Ramakrishna Reddy)
Chief Executive Officer,
Andhra Pradesh Maritime Board.

CHAPTER - 3

PORT LAYOUT AND MODEL STUDIES

3.1 SELECTION OF SITE FOR PORT DEVELOPMENT

3.1.1 Criteria for Port Site Selection

The principal consideration in locating any harbour is to take advantage of natural conditions such that natural protection, natural depths and favourable entrance conditions are prevailed. The greatest natural protection is provided by an embayment with promontories enclosing the area, but leaving sufficient opening for safe navigation to the protected area. Certain protective works like dredged channels, jetties, groins and breakwaters are however essential for an efficient functioning of any harbour.

While selecting a location for a harbour, the characteristics of the coastline and its suitability for harbour have to be examined. Harbours based on their location can generally be classified as (i) river channel harbours, (ii) off river harbours, (iii) fall line harbours, (iv) channel harbours in tidal estuaries, and (v) shore line harbours Andhra Pradesh has a vast coastline of about 915 km. While Visakhapatnam has the advantage of natural harbour protected by Hill Dolphin's Nose and Kakinada to some extent by Sand spit, the other harbours viz., Gangavaram, Krishnapatnam are developed in lagoons.

Depending upon the classification of the harbours, the problems of siltation and maintenance of the channels are quite different. In the case of shoreline harbours the shoaling effects are generally in the immediate vicinity of the harbour where manmade structures are erected.

The basic criteria for selection of a port location are as follows:

- Protection from Winds, Waves and Currents
- Sufficient Land and Water Area
- Proximity to Operating Area
- Adequate Water Depths
- Limited Exposure to Sedimentation and Shoaling
- Connectivity to rail/road
- Environmental considerations

Since new sites meeting all criteria are rarely found, feasibility studies of alternative sites to compare the pros and cons of each are often required to identify the most attractive site based on an evaluation of combined engineering and economic considerations.

3.1.2 Alternate Sites

The Machilipatnam coast is located north of Krishna River Delta. The data for site selection and setting up of a port have been compiled from various sources, Survey of India

toposheets, Naval Hydrographic Charts, Bathymetric survey drawings, Satellite imageries and so on. The thorough examination of the coastline features are finally led to three alternate locations for selection of a site for port. The pros and cons are discussed below:

Three alternate locations have been studied namely (i) Location at the existing port at Gilakaladindi (ii) Port location at Manginapudi at about 5 km north of existing port and (iii) Port location at Goguleru Creek at about 15 km north from existing port. The coast line at Machilipatnam has no feature affording natural protection for creation of natural harbour. Hence the harbour is to be developed between the breakwaters to provide shelter to the vessels and to avoid shoaling of the harbour basin by possible littoral drift.

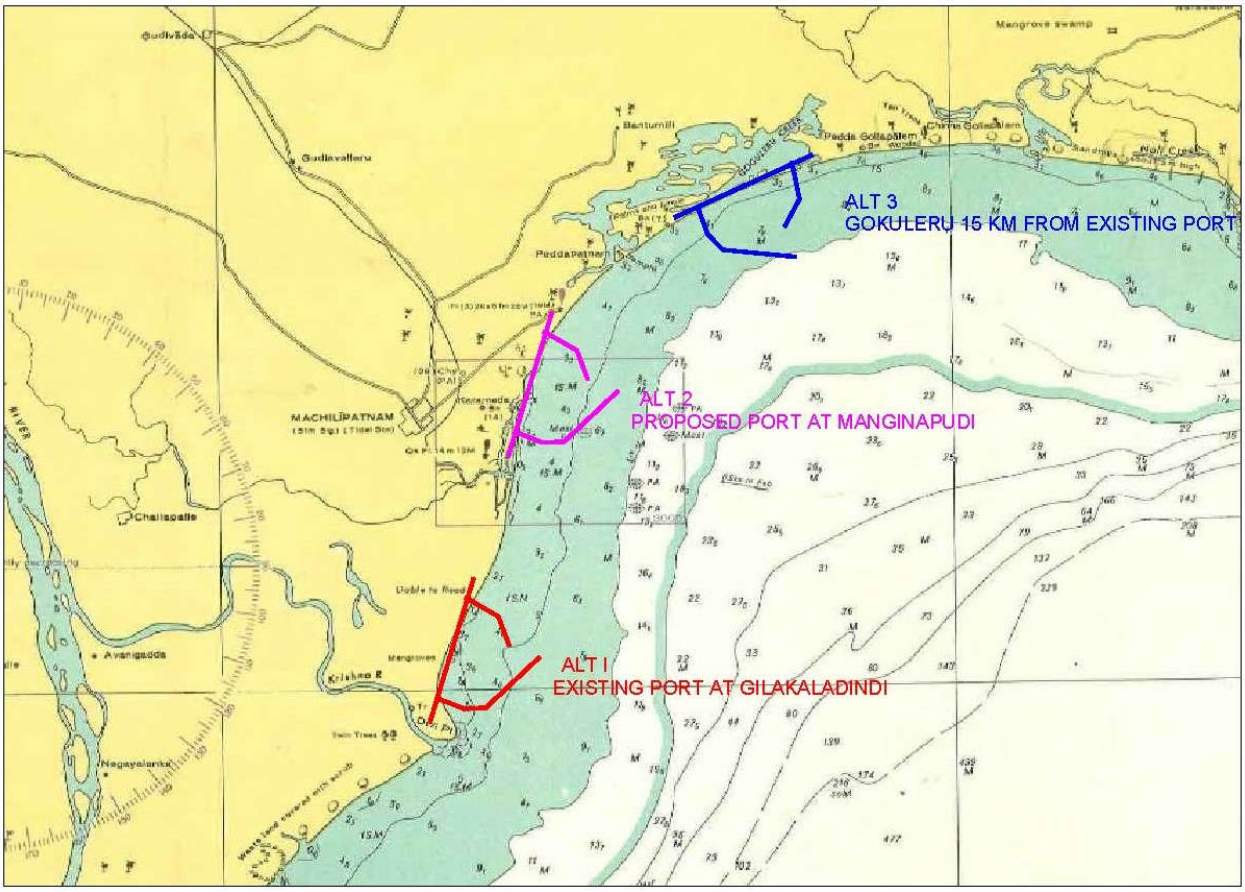

Fig 3.1: Alternate sites for port development along Machilipatnam coast

Thus there is no other option but to create protected harbour at this location of Machilipatnam. Hence the harbour at the Machilipatnam comes under shoreline harbour exposed to the open sea and protected by breakwaters. The creation of artificial harbour is capital intensive and hence selection of optimum location and harbour layout are important to develop the harbour at the minimum cost considering basis criteria as explained above.

It is therefore explored various alternative sites along the Machilipatnam coast in terms of locations within in the region. Further at the most optimal location meeting the basic criteria, various options of harbour layouts – (i) Development of harbour basin inside the shore (ii) Development of harbour basin outside the shore in the open sea have been

examined for Phase – 1 development of the port. For selected option, the master plan for development is proposed which can take care of hinterland requirement for beyond 50 years even after achieving the projected cargo volumes. The conceptual details of harbour development as out lined below:

3.1.3 Existing Port location at Gilakaladindi – Alternate site 1

The existing port of Machilipatnam is situated on northern bank of salt creek flowing from Bandar lock of Krishna Delta system. The Jetty is located at about 2.5 km inside the salt creek from confluence with sea. The port is lighterage port.

Machilipatnam existing port faces the problem of formation of sand bar at the mouth which restricts the depth of water at the mouth. As per the recommendations of the CWPRS, Pune, two short groins were constructed of 203 m length each on either side of the creek as correcting measures. The width of the channel is 120 m cut through sand bar and the water depth at the mouth is 1 m at low tide.

RCC jetty is available for small boat and fishery boats to berth. Light House is available. Port facilities are nonfunctional.

Development of new port at the existing port location at Gilakaladindi

The site at the existing port location at Gilakaladindi has been examined for its suitability for a proposed new deep waters all weather port at Machilipatnam. The new proposed will come up in a larger scale meeting projected cargo volumes in the hinterland on a long term basis, the port has to be developed in a open sea area avoiding narrow and shallow creek portion as shown in Fig 3.2

The harbour to be developed along the coastline by constructing south and north breakwaters extending up to about -5 m to -6 m contours.

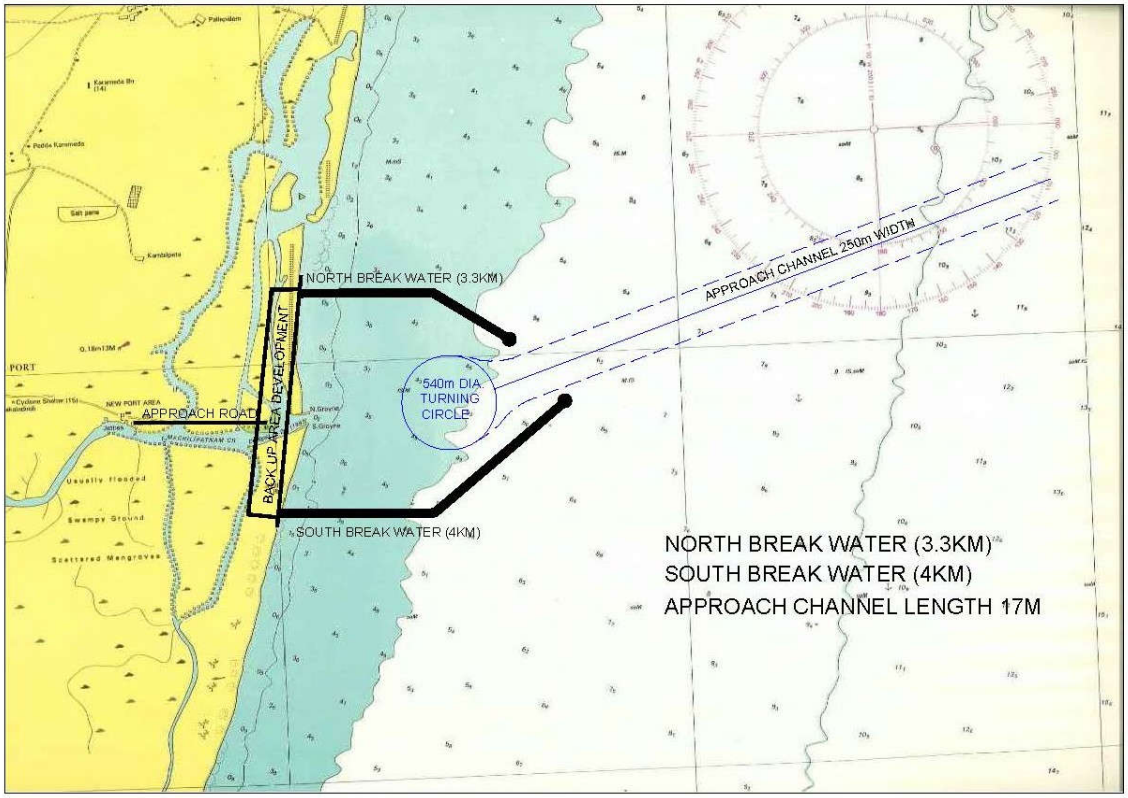

Fig 3.2: Existing Port location at Gilakaladindi

The length of the south breakwater of about 4.0 km and north breakwater of length 3.3 km would be required for creation of harbour basin at this location. The approach channel is lengthy. Depth contour of -16.2 m is located at about 12 km from the shoreline and -20.3 m depth contour is located at about 15 km from the shoreline.

Port Connectivity

The port is connected by single lane narrow road to Machilipatnam town and there by wide 6 lane road existing to Vijayawada. Salt pans exist behind the existing port location. The area is too congested.

The port has to be connected to the nearby broad gauge railway station at Machilipatnam.

The disadvantages of this location are:

- Behind the harbour basin salt water creeks are there which are to be closed permanently for development of back up area for port
- Closure of creeks may lead to environmental problems for getting environmental clearance
- Mangrove bushes exists on either side of the creek which may be environmentally sensitive
- The major disadvantage of this location is the approach roads for rail and road for evacuation of traffic will pass through the heavily congested Machilipatnam town
- Sea bed is flat and shallow

- Sub surface soil is weak with n value up to -15 m is negligible

Considering the above disadvantages this location has been ruled out for development of proposed all weather deep water port.

3.1.4 Development of new port at Manginapudi – Alternate site 2

The proposed site for port development is located at Latitude 16° 09' N and Longitude 81°09" E.

The proposed site is located at about 4 km north of existing old Machilipatnam Port at Gilakaladindi. The location is near to the at Manginapudi and Tavisipudi villages and near Pedana Railway station.

Fig 3.3: Location of Machilipatnam port at Manginapudi

Based on preliminary site reconnaissance survey, primary and secondary data analysis as available, and considering the various met ocean parameters such as winds, waves, storms, surges and sediment dynamics collected from various sources, location of proposed port is finalized.

The criteria considered for site selection such as stability of coast line during cyclones, proximity of operating area, sufficient land and water area, adequate water depths, limited exposure to sedimentation and shoaling, connectivity to rail/road, environmental considerations port location is finalized. Wave transformation model and hydrodynamics model studies as carried out have been analyzed for wave tranquillity within the harbour basin.

The government is keen on developing the port and the logistics hub only in the seafront area at Manginapudi / Tapasipudi. The MachilipatnamUrgban Development Authority (MUDA) has begun the exercise to fix the boundaries of land purchased by the government and extent owned by it as shown in the Fig 3.4.

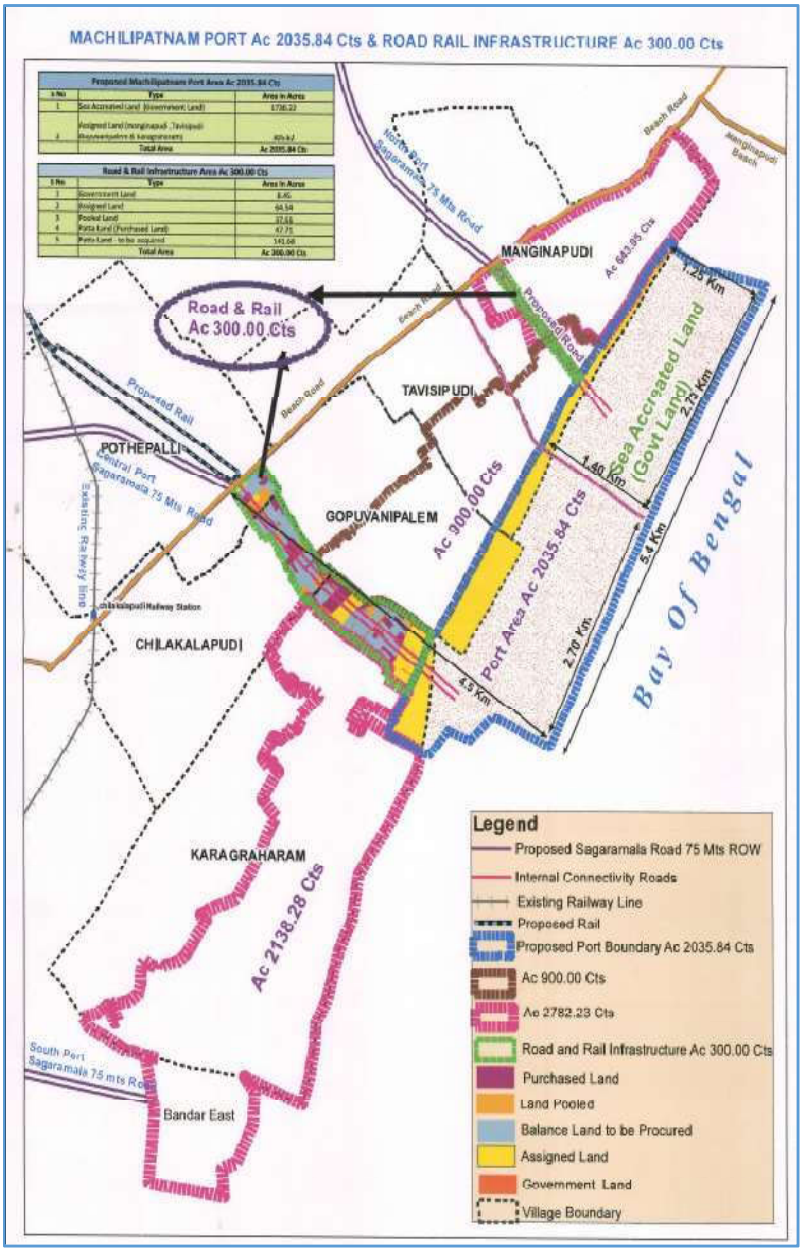

Fig 3.4: Port land Port approaches to the location at Manginapudi

Harbour basin and berth locations are inside the shore

The harbour basin can be developed inside the shoreline as the material is soft and easily excavated from dredging equipment operated from land base.The shore connected breakwaters of short length will also be required to provide tranquillity to the harbour basin and also to protect siltation in the basin.

The lengths of the breakwaters are:

- Length of south breakwater : 2000 m
- Length of north breakwater : 260 m
- Approach channel length at -16.8 m contour : 12.7 km
- Draft of vessel : 14 m
- Approach channel depth : 16.8 m

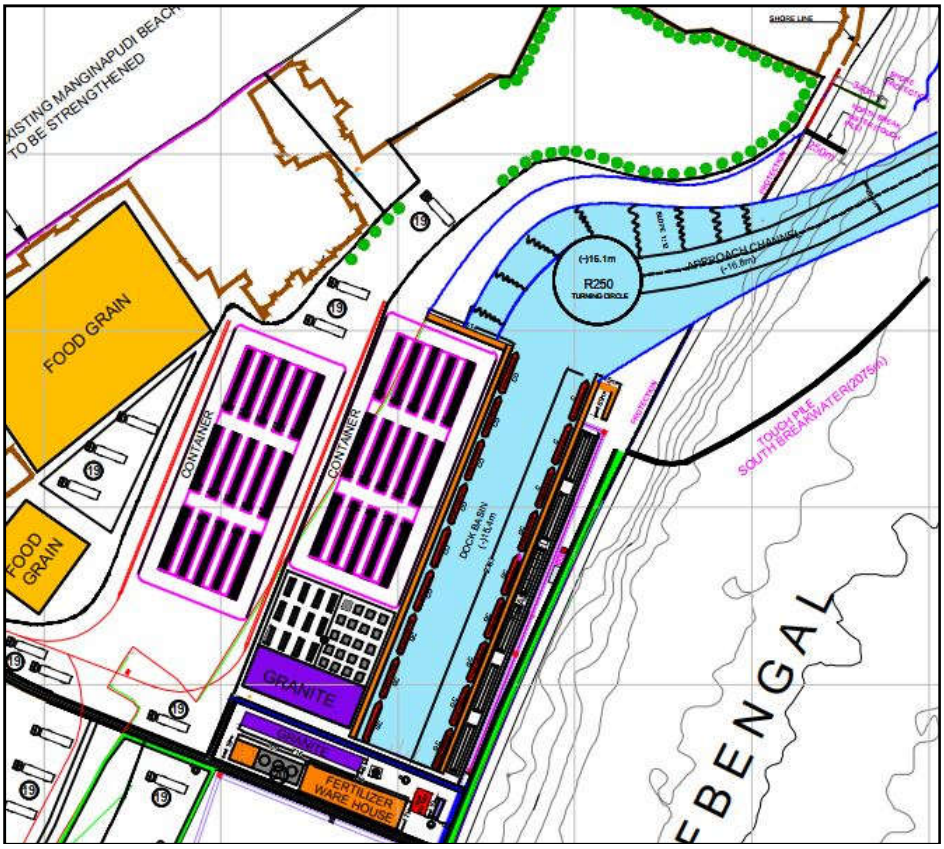

Fig 3.5: Proposed Harbour layout at Manginapudi location - basin and berths are inside the shore

Advantages of Port location at Manginapudi

- Sea accreted Government land of 2035 acres is readily available for port development
- Environmental clearance for port construction has already been given by MOEF on meeting EIA criteria for this site earlier but requires to get renewal

- Road / Rail connectivity to port is available within 6 to 7 km. The rail connectivity to port is from Pedana railway station
- Adequate land is available for port led industry to come up
- The backup land to the port is not congested since the approach roads are not passing through the Machilipatnam urban area

Disadvantages to the port location

- Sea bed is flat and shallow
- Sub surface soil is weak with n value up to -18 m is negligible
- Sea bed is flat and shallow

3.1.5 Alternate – 3 at Goguleru Creek

The third alternate site examined is at Goguleru which is about 10 km north of the second alternate location at Manginapudi.

At Guguleru creek location the bed slope is relatively steep. The – 3.0 m contour is near to shore. The slope of -3.0 m to 5.0 m is 1 in 1500; for -5.0 m to -10.0 m the slope is 1 in 810 and for -10.0 m to -20.0 m the slope is 1 in 937 m.

- Length of south breakwater : 2700 m
- Length of north breakwater : 1600 m
- Approach channel length at -16.8 m contour : 12.8 km
- Coastline length between breakwaters : 3.2 km
- Draft of vessel : 14 m
- Approach channel depth : 16.8 m

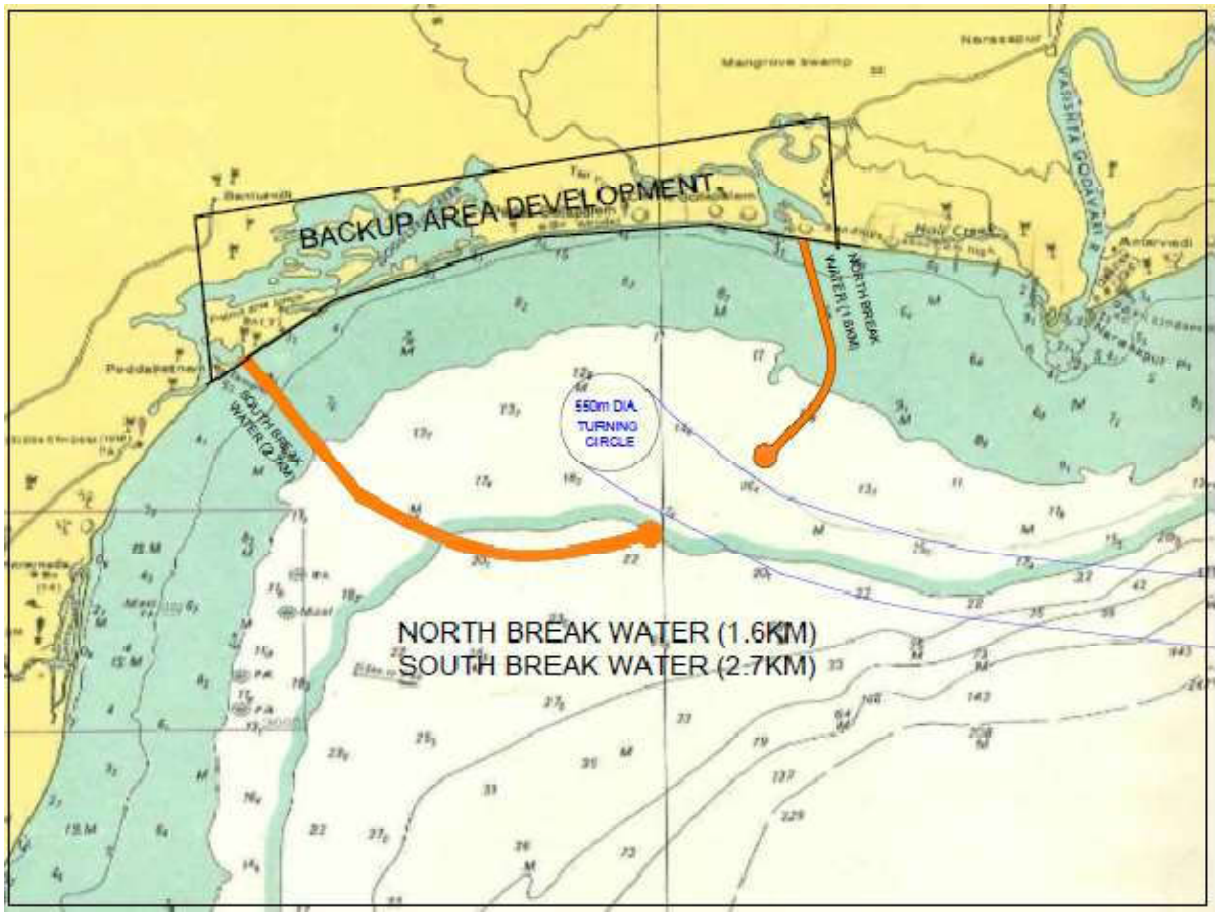

Fig 3.6: Port layout at Goguleru, 10 km north of Manginapudi (Alternate – 3)

Advantages

- Depth profile is relatively steeper than locations at other two alternates of (i) Gilakaldindi and (ii) Manginapudi
- Capital dredging quantity is less when compared to other two locations

Disadvantages

- Since there is a creek and port development may lead to closure of creek channels which may adversely affect Environmental issues
- Great disadvantage at this location is approach road and rail connectivity is about 30 km away from the port location and there by the connectivity cost will be increase.
- Land for port development will be acquired. Land acquisition is a big problem

Development of Greenfield port at Machilipatnam, Krishna District, Andhra Pradesh

Analysis of Alternative sites

Three alternate locations have been studied namely

(i) Location at the existing port at Gilakaladindi
(ii) Port location at Manginapudi at about 5 km north of existing port and
(iii) Port location at Goguleru Creek at about 15 km north from existing port.

The coast line at Machilipatnam has no feature affording natural protection for creation of natural harbour. Hence the harbour is to be developed between the breakwaters to provide shelter to the vessels and to avoid shoaling of the harbour basin by possible littoral drift. The advantages and disadvantages of the alternate sites are given below:

S.No.	Advantages	Disadvantages
Alternate site 1 – Existing Port location at Gilakaladindi		
1	-	Behind the harbour basin salt water creeks are there which are to be closed permanently for development of back up area for port
2	-	Closure of creeks may lead to environmental problems for getting environmental clearance
3	-	Mangrove bushes exists on either side of the creek which may be environmentally sensitive
4	-	The major disadvantage of this location is the approach roads for rail and road for evacuation of traffic will pass through the heavily congested Machilipatnam town
5	-	Sea bed is flat and shallow
6	-	Sub surface soil is weak with n value up to -15 m is negligible
Alternate site 2 – Development of new port at Manginapudi		
1	Sea accreted Government land of 2035 acres is readily available for port development	Sea bed is flat and shallow
2	Environmental clearance for port construction has already been given by MOEF on meeting EIA criteria for this site earlier but requires to get renewal	Sub surface soil is weak with n value up to -18 m is negligible
3	Road / Rail connectivity to port is available within 6 to 7 km. The rail connectivity to port is from Pedana railway station	-
4	Adequate land is available for port led industry to come up	-
5	The backup land to the port is not	-

	congested since the approach roads are not passing through the Machilipatnam urban area	
Alternate site 3 – At Goguleru Creek		
1	Depth profile is relatively steeper than locations at other two alternates of (i) Gilakaldindi and (ii) Manginapudi	Since there is a creek and port development may lead to closure of creek channels which may adversely affect Environmental issues
2	Capital dredging quantity is less when compared to other two locations	Great disadvantage at this location is approach road and rail connectivity is about 30 km away from the port location and there by the connectivity cost will be increase.
3	-	Land for port development will be acquired. Land acquisition is a big problem

Based on various advantages and disadvantages for the alternate port layouts studied along Machilipatnam coast for development of all-weather new green field deep water port, it concluded that the location at Manginapudi is most suitable site.

Commercial Viability of Port

Setting up of Machilipatnam Port in Krishna district, Andhra Pradesh will lead to increase in exports and revenue generation. The Guntur district in the primary hinterland of proposed Machilipatnam port is the headquarters of commercial crops in the state. The Guntur city is headquarters to Agricultural Marketing Department. The Tobacco Board, The Spices Board also has their headquarters located in the city. Agriculture Market Committee Market Yard, the largest chilly yard of Asia, generates an income of up to ₹100 crore (US$14 million) during trading season. The spiciest Guntur chillies are exported to foreign countries and the city stands second in terms of trade, next to Mexico.

Tobacco is an important commercial crop, which plays a significant role in the Indian Economy. India earned the distinction of being the world's third largest producer of tobacco, next only to China and Brazil. FCV tobacco, which is the main exportable variety produced in Andhra Pradesh and Karnataka.

Guntur is the tobacco Capital of the country, where all varieties of tobacco growing, auctioning and trading is present. The nearby ports of Chennai and Visakhapatnam handle the tobacco export consignments in Containers as well as bulk. Machilipatnam being nearest to Guntur, the export can be diverted considering distance advantage.

India accounts for 30 per cent of the world's export of high quality natural stones like granite, marble, sandstone. India is the Second largest exporter of granite after China. Next in line are Brazil and South Africa. The State is well known for exclusive Granite varieties - Chimakurthy Black Galaxy, Steel Grey, Ocean Blue, Black Pearl in Prakasam, Srikakulam Blue in Srikakulam, Vizianagaram Green in

Vizianagaram, River White, Kashmir White & Moon White in Visakhapatnam, Yellow Granite in East Godavari, Silver Pearl, Indian Labrador, Blur Paradise, Copper Green, Platinum Blur in Guntur, Viscon White, Tiger Black, Kuppam Green English Teak in Chittoor, Pista Green in YSR, Chilli Red in Anantapur and Chocolate Brown in Kurnool Districts.

Machilipatnam is the base for Oil and Natural Gas Corporation's Eastern Offshore Asset. The Krishna Godavari Basin is considered to be the largest natural gas basin in India and significant discoveries of oil and natural gas were made by Oil and Natural Gas Corporation (ONGC), Gujarat State Petroleum Corporation and Reliance, which has been producing around 60 mmscd of gas for the past two years from its prolific KG D6 block off the Kakinada coast.

Detailed discussions held with ONGC authorities have revealed that they require utility berths for offshore plat forms. ONGC requires an Offshore Supply Base between Kakinada and Machilipatnam for monetizing its offshore discoveries on the East Coast. ONGC is interested in developing an Offshore Supply Vessel for Captive use. The requirement will be mainly to cater to offshore requirements for:

- Supply of material for drilling rigs which include pipes, casings, chemicals etc.
- Supply of daily requirements for the personnel at drilling rigs
- Supply of material for offshore construction activities that are to commence from late 2016 onwards.
- Supply of subsea equipment
- Supplies for various vessels (expected to be in excess of 50) that will be carrying out various activities during the construction
- Emergency operations
- The need for supply base for a long period (more than 20 years)

Sensitivity Analysis

An in-depth sensitivity analysis for different scenarios has been attempted to adjudge the project viability adverse circumstances due to changes in the assumptions of critical parameter like increase in costs, decrease in revenues. The values of FIRR as a result of changes in these parameters are summarized in the table below.

Table: Change in FIRR (%)

Case	Alternative 1	Alternative 2	Alternative 3
Base Case	13.12%	13.45%	13.54%
10% increase in capital cost	12.11%	12.50%	12.60%
10% increase in capital cost and Operation & Maintenance Cost	11.42%	11.84%	11.96%
10% decrease in revenues	11.24%	11.67%	11.80%
10% increase in cost and 10% decrease in revenues	10.30%	10.80%	10.95%

The Financial Analysis reveals that the Project is commercially viable proposition in all the alternatives.

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Infrastructure & Investment Department – Development of Machilipatnam Port, Krishna District – Approval of DPR and Administrative Sanction for development of Machilipatnam Port – Orders – Issued.

==========

INFRASTRUCTURE & INVESTMENTS (PORTS-I) DEPARTMENT

G.O.MS.No. 14 Dated: 09-11-2020.

Read the following:

1) G.O.Ms.No.2, I&I (Ports-1) Dept. dated 30-1-2008.
2) G.O.Ms.No.15, I&I (Ports-1) Department dated 18-4-2008.
3) G.O.Ms.No.7, I&I (Ports-1) Department dated 15-4-2010.
4) G.O.Ms.No.66, I&I Department dated 08-08-2019.
5) From the Chief Executive Officer, APMB, Kakinada Letter No SE/PP3/464/2019 Dt.09-10-2020.

ORDER:

The coast line of Andhra Pradesh is 974 KMs, the 2nd longest in the country and is studded with (16) non-major ports (one Major Port at Visakhapatnam). Of the above, the following (3) non-major ports are developed.

(1) Kakinada Deep Water Port;
(2) Krishnapatnam Port; and
(3) Gangavaram Port.

2. Earlier to the development of these ports, only Kakinada Anchorage Port was handling about 2 million tons per annum prior to 2000-01 and after the development of the above ports, the present handling capacity of all the above ports has reached is arount 100.00 MT per annum.

3. Orders have been issued in the G.O. 1st read above, awarding the development of Machilipatnam Deep Water Port at Gilakaladindi near Machilipatnam to M/s. Mytas Infrastructure Pvt. Ltd. consortium, Hyderabad. A concession agreement was also entered into with M/s. Vajra Sea Ports Pvt. Ltd., the S.P.V. and later named as M/s. Machilipatnam Port Limited for development of Machilipatnam Deep Water Port in accordance with the orders issued in the G.O. 2nd read above. Consequent on their expressing inability to carry forward the project on 28-8-2009, Government after careful examination of the various issues involved in the request of M/s. Machilipatnam Port Limited and also considering the technical and financial competence of M/s. Navayuga Engineering Company Ltd., and also eligibility criteria laid down in the EoI have inducted M/s. Navayuga Engineering Company Ltd., as the Lead promoter of Machilipatnam Port Project – vide G.O. 3rd read above in supersession of the orders issued in the G.Os. 1st and 2nd read above. Though, M/s. Navayuga Engineering Company Ltd., were inducted as Lead Promoter of Machilipatnam Port Project as back as 15-4-2010, since there is no progress and not even achieved financial closure, and taking into consideration of the inaction of the Concessionaire in the development of port, Government have cancelled the

Concession Agreement dated 07-06-2010 entered into with M/s. Navayuga Engineering Company Ltd. in the G.O. 4th read above.

4. In the meantime Visakhapatnam–Chennai Industrial Corridor (VCIC), which is a key part of the East Coast Economic Corridor (ECEC), India's first coastal corridor has been notified. The corridor traverses nine districts of the state of Andhra Pradesh. VCIC intends to complement the ongoing efforts of the Government of Andhra Pradesh (GoAP) to enhance industrial growth. VCIC supports Government of India (GOI)'s strategy to develop industrial corridors of international standards for expanding its manufacturing and services sectors, and creating modern urban centres connected by state-of-the-art infrastructure. GOI has selected the Asian Development Bank (ADB) as the lead partner for developing the ECEC, which will run from Kolkata to Kanyakumari, encompassing the four states of Andhra Pradesh, Tamil Nadu, Odisha, and West Bengal. Due to its vast scope, ECEC is being implemented in a phased manner, with VCIC as the first phase.

5. In this scenario, Government of Andhra Pradesh is keen in developing the following four non-major ports, now to cater to the increasing demand of various types of bulk and container cargo etc., which may likely to handle 300-350 Million tons per annum by 2024-25:

1. Bhavanapadu Port in Srikakulam District;
2. Kakinada Port in East Godavari;
3. Machilipatnam Port in Krishna District; and
4. Ramayapatnam Port in Prakasham District.

6. Kakinada Port has been awarded to GMR SEZ Gateway Pvt. Ltd. RITES, consultants, were engaged for preparation of Detailed Project Reports (DPRs) for the development of Bhavanapadu Port in Srikakulam District and Ramayampatanm Port in Prakasham District. The DPR prepared for the development of Ramayapatnam Port has been approved and administrative sanction has been accorded to take up development on Land Lord concept – vide G.O.Ms.No.2, I&I (Ports) Dated 15-6-2020. The DPR for the development of Port Bhavanapadu has been accorded sanction to take up development on Land Lord concept – vide G.O.Ms.No.6, I&I (Ports) Dated 25-08-2020.

7. M/s RITES Ltd., has submitted Draft Detailed Project Report (DPR) for development of Greenfield Port at Machilipatnam on Dt.31-08-2020.

8. The Chief Executive Officer, APMB has reported that the total project is envisaged to be developed in phases under Land Lord Model. Initially it is proposed to take up Phase-I development, comprising of development of 4 General Cargo + 1 Coal + 1 Container berths, by creating the required infrastructure in 800 acres with completion period of 36 months. He requested the Government to approve the DPR prepared by M/s. RITES and also accord administrative sanction to take up Phase-I of the Project works with a total estimated cost of Rs.5835 crores in 36 months for development of Machilipatnam Port in Krishna District by providing State support to an extent of Rs.1000.00 crores and to permit the APMB to raise debt Rs.4745 cores with appropriate support of the State Government and to grant permission to call for tenders and all further actions by APMB.

9. Government after careful examination of the matter hereby approve the DPR prepared by M/s. RITES towards development of Machilipatnam Port in Krishna District under Land Lord model and hereby accord administrative sanction to take up Phase-1 works with total project cost of Rs.5835 crores with completion period of 36 months for development of Machilipatnam Port in Krishna District by providing State support to an extent of Rs.1000.00 crores. The AP Maritime Board to provide Rs.90 crores towards balance acquisition of land of an extent of Ac.225.00 required for Phase-I for creation of infrastructure.

10. Further Government permit the AP Maritime Board to raise debt of not exceeding Rs.4745 crores with appropriate support of the State Government. The AP Maritime Board is also hereby permitted to call for tenders and take all further actions for execution of the project.

11. The Chief Executive Officer, A.P. Maritime Board, Kakinada shall take necessary action accordingly.

12. This order issues with the concurrence of Finance Department, vide their U.O.No. FIN01-FMU0ASD(IC)/202/2020-FMU-IIEIC, dated 04.11.2020

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

R.KARIKAL VALVEN
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Chief Executive Officer, Andhra Pradesh Maritime Board, Kakinada
The Managing Director, Machilipatnam Port Development Corporation Limited (RPDCL)
The District Collector, Krishna District.
The Prl.Accountant General (Audit.I) A.P.,Vijayawada
The Director of Treasuries & Accounts,Vijayawada
The Director, Works & Accounts, AP
The District Treasury Officer, Krishna District.
Copy to:
The Secretary, Government of India, Ministry of Shipping, New Delhi.
The OSD to Secretary to Hon'ble CM
The OSD to Hon'ble M(I&I) Dept.
The Finance (FMU-ENERGY&I&I) Dept.
The GA(Cabinet) Dept., Secretariat, AP., Velagapudi
The PS to Special Chief Secretary to Govt.I&I Dept.

//FORWARDED :: BY ORDER//

SECTION OFFICER

Development of Greenfield port at Machilipatnam, Krishna District, Andhra Pradesh

Details of Major & Non-Major Ports from Proposed Greenfield Port at Machilipatnam

S.No.	Name of the Port	Distance from Proposed Machilipatnam Port	Direction w.r.t. Machilipatnam Port
1.	Visakhapatnam Port (Major Port)	280 km	North
2.	Ennore Port (Major Port)	325 km	South
3.	Kakinada Seaport Pvt. Ltd. (Non-Major)	150 km	North
4.	Proposed Kakinada SEZ Port (Non-Major)	180 km	North
5.	Proposed Ramayapatnam Port (Non-Major)	180 km	South
6.	Krishnapatnam Port (Non-Major)	250 km	South
7.	Gangavaram Port (Non-Major)	270 km	North
8.	Proposed Bavanapadu Port (Non-Major)	430 km	North

Google Image depicting the Major and Non-major ports