



GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD

**THIRTEENTH FIVE-YEAR PLAN
(2017-2022)**

**WORKING GROUP ON
PORT AND LIGHT HOUSESSECTOR
REPORT**

INDUSTRY AND INFRASTRUCTURE DIVISION

KERALA STATE PLANNING BOARD
THIRUVANANTHAPURAM

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PREFACE

In Kerala, the process of a Five-Year Plan is an exercise in people's participation. At the end of September 2016, the Kerala State Planning Board began an effort to conduct the widest possible consultations before formulating the Plan. The Planning Board formed 43 Working Groups, with a total of more than 700 members – scholars, administrators, social and political activists and other experts. Although the Reports do not represent the official position of the Government of Kerala, their content will help in the formulation of the Thirteenth Five-Year Plan document.

This document is the report of the Working Group on Port and Light Houses Sector. The Chairpersons of the Working Group were Shri James Varghese IAS and Shri K Mohandas. The Member of the Planning Board who coordinated the activities of the Working Group was Dr Ravi Raman. The concerned Chief of Division was Shri N. R. Joy.

Member Secretary

FOREWORD

The Ports Sector plays a crucial role in the industrial and Commercial Logistics of the State. To promote industrial activity in the State, the Government of Kerala has identified the Port Sector as a major thrust area and encourages up gradation and setting up of new ports and related infrastructural facilities, Coastal Shipping and tourism initiatives along with hinterland and Coastal Community development. Activities in the Ports and Light houses sector in the State are implemented through the Port Department, Harbour Engineering Department, and Hydrographic Survey Wing.

The State Planning Board has constituted a Working Group on Port and Light Houses Sector for evolving suitable strategy and approach to 13th Plan under the Co Chairmanship of Sri James Varghese IAS, Principal Secretary to Government, Department of Fisheries and Ports and Shri K Mohandas IAS (Retd), Former Secretary, Ministry of Shipping, Govt of India. The Committee made three sittings and detailed deliberations were made and came up with proposed policies and programmes needed for development during the plan period. In the 13th Plan it is proposed to develop Vizhinjam, Thankassery, Alappuzha, Munambam, Ponnani, Beypore and Azhekkal ports with all infrastructure facilities to handle more cargo and passengers.

We are grateful to all members for their participation and valuable suggestions / recommendations in bringing up the report. Special mention needs to be made for the efforts taken by Sri Sivaraja Vijayan IAS (Retd) , Sri P.I Sheikh Pareeth IAS (Retd) and present Director of Ports , Sri Ajith Patil IAS in drafting and formulation of the report. Particular mention needs to be made for the support and whole hearted co-operation of Dr Ravi Raman, Member, State Planning Board right from the constitution of the working group to the finalisation of the report. Special reference is mentioned for the service rendered by for Shri. N.R. Joy, Chief & Convener and Smt. Deepa Sivadasan , Asst Director & Co Convener, Industry and Infrastructure Division, State Planning Board for conducting meeting and coordinating the materials from different members for the preparation of the report.

Sri James Varghese IAS
Co-Chairperson

Sri K Mohandas IAS (Retd)
Co-Chairperson

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LIST OF ABBREVIATIONS

PPP	Public Private Partnership
HED	Harbour Engineering Department
HSW	Hydrographic Survey Wing
KSMDCL	Kerala State Maritime Development Corporation Ltd.
VTMS	Vessel Traffic Management System
ISPS	International Ship and Port facility Security Code
RVNC	Rail Vikas Nigam Ltd
EIA`	Environmental Impact Assessment
EDI	Electronic Data Interface
DBFOT	Design Build Finance Own Transfer
VGP	Viability Gap Fund
CSR	Corporate Social Responsibility
SDC	Sagarmala Development Company
CUSAT	Cochin University of Service & Technology
CNG	Compressed Natural Gas
EXIM	Export – Import

CHAPTER 1
INTRODUCTION

General

1. The Public Transport System in Kerala, has gained renewed momentum in the context of the rapid changes taking place in the Mass transport system and logistic industry, rapid industrial growth in the allied industrial sectors, and the demands of overall growth in the State. In this context the Port Sector have acquired added importance as a parallel transport system to meet the above demands. The uncontrollable increase in the vehicles especially passengers and goods carriers has resulted in heavy congestion of our State and National Highways and also in up keeping of highways to the specific standard. The growth in road access coupled with the spate in automobiles has created much hazard to regular movements and evacuation processes during emergencies. This situation creates both social and economic threat to the society. The excess consumption of fuel has also led to several environmental issues and problems created by excessive carbon emission. This necessitates improving the mass transport system by utilizing the extensive waterways and technically viable coastal climate in the Kerala Coast. The nearness to the other major ports in Kerala and well developed hinterland in the state will create a favourable environment for the development of the main non-major port in the state.

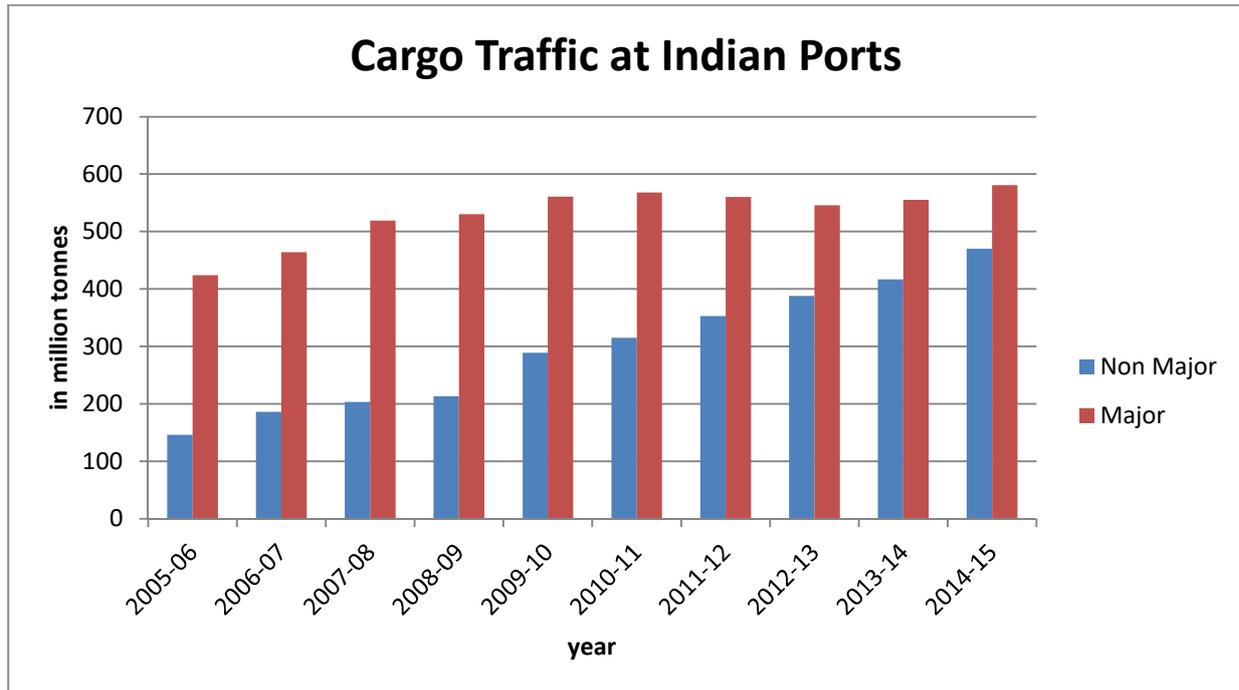
Ports in India

2. India's long coastline of over 7500 km is home to the country's 12 major ports and around 200 non-major ports located along the western and eastern corridors of which only 139 are operable . Indian ports are the gateway to India's international trade by sea and are handling over 90% of foreign trade. The 12 major ports managed by the Port Trust of India are under Central Government jurisdiction and the 139 minor ports are under the jurisdiction of the respective State Governments. While the non-major ports are larger in number only about one- third of them undertake regular commercial operations. These are located mainly in Gujarat, Andhra Pradesh, Goa and Maharashtra.

Cargo traffic at major and non-major ports in India

3. Cargo traffic at ports in India reached 1052.214 million tons in year 2014-15. Figure below shows the traffic pattern at major and non-major ports in India for the past decade.

Figure 1 *Cargo traffic at Indian ports*



- The total cargo traffic handled at the Indian ports over the ten years period from 2005-06 to 2014-15 has more than doubled. Major ports in India have enjoyed a dominant position in terms of handling cargo traffic for many years, handling more than 90% of total cargo until year 1994. However, due to capacity constraints, and congestion issues being faced at many of the major ports, the cargo traffic has witnessed significantly higher growth at non-major ports. Another contributing factor to this growth is the efforts of maritime state government agencies to promote non-major ports in their states by adopting PPP model for development of non-major ports. Most of the ports with private sector participation viz. Mundra, Pipavav, Gangavaram, Krishnapatnam, Karaikkal, etc. are equipped with superior infrastructure and modern handling facilities, and hence have been growing fast. As a result, cargo traffic in non-major ports has grown to 470.87 million tonnes in year 2014-15 from 145.53 million tonnes in the year 2005-06. The state of Gujarat in particular has been most dynamic and pro-active in attracting private sector participation for ports development. This is reflected with the state having more than 70% share of traffic at the non-major ports of the country.

Ports in Kerala - Past Glory

- The State of Kerala is well known for trade operation through water ways kingdom and starts from 3000BC onwards. The Muziris port, in Central Travancore is in trade relation with license with European countries, other Asian countries, UAE, etc. The remnant found in the area bear witness of an established port related civilization in Kerala where ships arrived in large numbers to procure the spices and other agricultural product in exchange of gold. In the erstwhile formation of Travancore, Cochin and Malabar kingdoms, the extensive use of waterways for the trade relations was remarkable with shipping activities with other countries, kingdoms and states. The operations were done through double handling systems

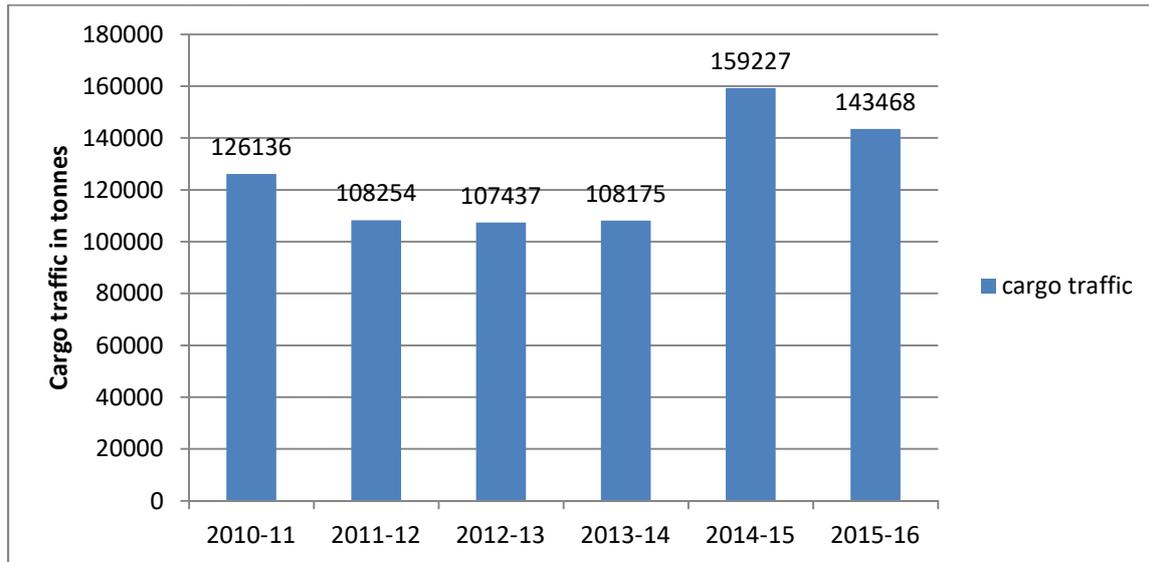
in olden days. In this operation the bigger ship will be anchored in the outer sea conveyed to land through steel and concrete piers through Barges and changadams.

6. The major operations done through the piers at Beypore (Calicut pier), Thalassery pier, Alappuzha pier and Valiyathura pier which made significant operations in coastal shipping. The Calicut pier was extensively used for rice import to the tune of about one lakh tonne per year and export of finished wooden products and marine sea foods. In Thalassery pier is meant for trading of rice, textiles, and marine products, etc. The shore based facilities like warehouses and godowns remains in the hinterland. The Alappuzha pier which has an out turn 1.5 lakhs tons of rice import and export of 40 thousand tons of coir products made remarkable achievements among other centres of shipping activities. The connectivity through the Vembanad Lake also paved the way for improved trade in the hinterland. The Valiyathura pier in Trivandrum district is known for rice import and cruise vessels movement. The tourists coming from the different parts of the world reach the pier through boats and floating craft. About one lakh tons rice is handled annually through this pier using double handling system.
7. In the case of Kollam port this location was extensively used for import of cashew by the local industrialist where triple handling system is used. Vessels anchored in the outer sea will load cargo into uru (tuticorin sail vessels upto 300 tonnes) and later to barges with multiple swing arrangement to reach the shore. About 2 lakh tons of cashew is handled at an average in an year from the port especially the cashew kernel and export of finished goods.
8. The decline in this pattern of shipment through pier and open barges was mainly due to the change in pattern of shipment in bulk carriers and containers. The growth of railway facilities in the state and the emergence of Cochin port and Tuticorin port is also a reason for the decline of the earlier systems.

Present trends in Kerala Ports

9. The Government of Kerala had taken a development friendly approach in the in the port sector XIth plan onwards. The Cochin port continues to account for more than 99 % of the cargo traffic at ports in Kerala and non-major ports handle negligible cargo traffic in the state. Due to the intervention of the State by way of suitable projects and meaningful intervention by the stake holders a positive trend in the cargo movements in non-major ports of Kerala has taken place. Cargo traffic in non-major ports of Kerala being 1, 08,245 Tonnes in 2011-12, has increased to 1, 59,227 Tonnes (an increase of 47%) during 2014-15. The growth of traffic over the years is shown in the figure below.

Figure 2 *Growth of cargo traffic in tonnes*



10. In view of the natural development already attained, emerging development in the hinterland and the need for further development, initiatives to create a viable financial model for port development is necessary as envisaged in the policy of the government. The important ports at Azhikkal, Beypore, Ponnani, Kodungallur, Alappuzha, Kollam and Vizhinjam are already in the path of development.
11. The Major port of Kochi is directly under the administrative control of Ministry of Shipping, Government of India and all the non-major ports are administrated by State Government. Some of the port operations are seasonal due to the high monsoon period. Both Central and State Government has given much importance to the development of port sector in view of eliminating the hazards in the congestive usage of roads and also in considering the socio-economic and environmental advantage in creating capital assets to the state. This positive trend internationally encourages the confidence while conceiving project plan interventions under the 13th Plan.

The Administrative Setup and Implementing Mechanism of the Non-major Port Of Kerala

12. *Directorate of ports.* The non-major ports of Kerala are administered directly by the Director of Ports who is headquartered at Thiruvananthapuram. Director of Ports is also the Marine Advisor to the state Government and also the Naval Reporting Officer of the State Government. He is also designated as the competent authority to oversee the implementation of the Kerala Inland Vessels Rules 2010 regulating the vessels plying in inland waters in the state. There are three regional port officers at Neendakara, Alappuzha and Kozhikode respectively. The Director of Port and port officers administer the port operations at all non-major ports with the powers vested on them by Indian Port Act (1950). The capital and maintenance dredging needed to maintain the required depth at the non-major ports is another responsibility of the Port department. The port department is also responsible to search and rescue operation along Kerala Coast at times of distress.

13. *The Hydrographic Survey Wing.* was constituted in 1968 as a component of the Kerala State Port Department with a view to cater to the requirements of Hydrographic Investigation for the development of the minor and intermediate ports of Maritime State of Kerala. The Hydrographic Survey Wing of the ports department is headed by the Chief Hydrographer. Conducting Hydrographic Surveys and investigations to study the current patterns in basins and on shore and off shore regions are the responsibilities of this wing. They issue the hydrographic Survey charts for the approaches and basins of all non-major ports. These charts are used by the vessels calling on the non-major ports. They are also used for the development plans of the non-major ports prepared by the Harbour Engineering Department. They also undertake survey work for other departments like Irrigation, Inland Navigation, Fisheries, Tourism, PWD and Research Institutions like Kerala Engineering Research Institute. The wing also supplies hydrographic data to National Hydrographic Office, Dehradun.

14. Harbour Engineering Department was formed in 1982 as a separate specialized service department for Fisheries and Ports. Government of India has empanelled Harbour Engineering Department of Kerala as a consultant in the coastal engineering field for the nation as a whole. This department is the only such State Department in India. The Harbour Engineering Department with its specialized knowledge and expertise in Coastal Engineering, Harbour Engineering and Estuarine Hydro Dynamics is in charge of construction of all Civil Engineering structures of non-major ports and their maintenance. This department has also developed effective novel dredging techniques in the dredging works in estuaries and basins. This department is in charge of conducting basic geo technical and hydraulic investigations and developing optimum useful site specific layouts of the non-major ports. They are also responsible for the preparation of master plans for the development of non-major ports and harbours.

CHAPTER 2
OVERVIEW AND ACHIEVEMENT OF THE 12TH PLAN

15. During the Twelfth plan period, it was proposed to develop fully fledged port infrastructure facilities in order to handle all type of cargo including container transport and passenger transport in selected ports.
16. Twelfth Plan envisaged development of port infrastructure, marine infrastructure, land side infrastructure, promotion of cargo and traffic through incentives, tourism –marina and water sports and implementation of ISPS code in ports.

Comparative Outlay and Expenditure

17. The total budgeted outlay for the sector in the 11th Plan was Rs 51463 lakh and expenditure Rs 56594.65 lakh (109.97 %). But during 12th Plan total budgeted outlay for the sector was Rs 70027 lakh (36.07 % increase over 11th plan). The Budgeted Outlay of the 12th Plan till 2015-16 is Rs 57426 lakh out of which an amount of Rs 67965.61 lakh is expended (118.35).

Physical Targets and Deliverables of the 12th Plan

18. The Port Department of Kerala had been carrying out shipping operation in the ports of Azheekal, Beypore, Kollam and Vizhinjam. As a policy matter Government of Kerala had decided to develop six non- major ports for the augmentation of cargo handling as part of Coastal Shipping initiative to reduce road traffic, pollution and carbon emission hazards.
19. Vizhinjam International Deep-water Multipurpose Seaport to be developed as the transshipment hub to cater to large mother vessels. Vizhinjam an all-weather port that will come up 10 – 12 nautical miles away from the Persian Gulf – Malacca lines with a draught of 18.20m would handle new generation mother vessels of size range 18000 to 22000 TEU

Overall Financial Performance during the 1st Four Years of the 12th Plan

20. The total financial outlay provided for the Port and light houses sector in the 12th Plan Period comes to Rs 70027 lakh with a break up of Rs 59840 lakh for the Department of Ports, Rs 6710 lakh for the Harbour Engineering Department and Rs 3468 lakh for Hydrographic survey Wing. During the 1st four years, the allotment comes to Rs 57426 lakh from which Rs 67965.61 lakh were expended. There are 19 schemes in the port department. 12 schemes in the Hydrographic Survey Wing and 9 schemes in the HED. Thus 45 schemes were under implementation in the 12th Plan.
21. The Table given below shows the year wise outlay and expenditure of the 1st four years of the 12th Plan.

Table 1 *Outlay and expenditure for first four years of 12th Plan in rupees lakh*

Sector	2102-13		2013-14		2014-15		2015-16		Total	
	Outlay	Exp	Outlay	Exp	Outlay	Exp	Outlay	Exp	Outlay	Exp
Port	24753	26223.37	6203	14449.66	8123	4599.62	10049	19341.32	49128	64613.60
Harbour										
Engg	2190	447.40	850	592.43	930	320.18	1370	706.85	5340	2066.86
Dept										
Hydro										
graphic										
Survey	816	130.70	816	446.14	816	357.70	510	350.24	2958	1284.78
Wing										
Total	27759	26801.47	7869	15488.23	9869	5277.50	11929	20398.41	57426	67965.61

Achievements under the Sector during the 12th Plan

22. During 12th Plan it was proposed to develop all port infrastructure facilities so as to handle all type of cargo and passenger traffic. As a result of the initiatives and programmes of the 12th Plan, comparing the cargo traffic for the first four years of the plan periods, it has doubled from 367882 tonnes in the 11th plan to 609229 tonnes in the 12th Plan. The achievement under the sector during the 12th Plan period may be summarised as follows: -

Port Development

23. Development of five non-major ports at, Azheekal, Beypore, Ponnani, Alappuzha and Kollam have been initiated.
1. *Development at Azheekal.* Azheekal Port is one of the important non-major Ports in Kerala which can be developed for the Cargo operation from Kerala Coast. Azheekal is one of the 4 ports where cargo operations take place. 226M Wharf was constructed in the Azheekal Port. 200 cub. Metre cutter suction dredger was procured from Holland and is stationed at Azheekal. Container handling facilities were provided in Azheekal Port by procuring LHM 180 & 120 from Austria. Connectivity to Azheekal port incurred by completing a road to the break water at Azheekal. 750 H P Tug container handling crane & reach stacker were also procured for Coastal Shipping Project during the 12th Plan period. Administrative Sanction was received for the Mechanical dredging of the port and entrusted to do it by KSMDCL. Container operations have started in this port. The cargo operation in Azheekal port has increased by 35% during the 12th Plan period.
 2. *Development at Beypore port.* Beypore port is the second biggest port in Kerala after Cochin and handles about 100000 tonnes of cargo and 7500 passengers per annum. Back up area of wharf at Beypore Port was increased to accommodate the increase in traffic. 40 Ft container handling crane and Reach Stacker were provided to the Port for Coastal Shipping operations. Establishment of VTMS is nearing completion, the implementation of ISPS Code has been initiated, Administrative Sanction was received for the preparation of Detailed Project Report for the Construction of 200M berth by IIT, Chennai. Container handling facilities were provided in Beypore Ports

- by procuring LHM 180 & 120 from Austria. Container Operations has started at Beypore port.
3. *Development at Ponnani port.* The port is being developed on PPP model by M/S. Malabar ports private limited. The infrastructure development and reclamation for sufficient area is under progress. Construction of break water is being done in the port. For Rail connectivity to Ponnani Port, RVNL is directed to prepare a study report. The estimated cost of the project is Rs.763 crores. The installed capacity by the completion of the two phases will be 20 million tonnes per annum. The operator was selected through Swiss Challenge Method which was adopted for the first time in the State to identify the private investor in a PPP project. The port will be made operational within three years. Ponnani has become the first port in Kerala to be taken up for development through public private participation (PPP). The SPV, Ponnani Ports Ltd will operate the project for 30 years during which it will pay the government a royalty of 2.75 percent of the total revenue in the first 15 years and 4.5 percent in the next 15 years.
 4. *Development at Alappuzha port.* Alappuzha's inherent attractions like the existing canal system, beautiful backwaters, a clean beach provide an ideal environment for developing tourism based infrastructure. The high amount of tourist inflow is a ready available market for newer attractions/s. Deloitte has prepared the DPR for the construction of a passenger terminal cum Marina in Alappuzha. EIA study for the project is being done by M/s. KITCO.
 5. *Development at Kollam port.* Kollam Port is developed for the Coastal Shipping Project. The Coastal Shipping Project was inaugurated in the Kollam Port on 09/11/2013 while passenger ships began operation in 2014. Kollam Port is equipped for handling International Cargo. After modernization of the port, the first foreign ship anchored in the port on 4 April 2014. The permanent customs facility was established at Kollam port. The Electronic Data Interface (EDI) facility of the Customs at the Kollam Port was commissioned on 6 January 2016. Kollam has become the second port in Kerala to offer EDI enabled technology. The construction works of new Passenger Terminal at Kollam Port was inaugurated on 14 August 2015. 'Intermarine', an international vessel from Singapore has anchored at Port of Kollam with 5,600 tonnes of raw cashew from the West African country of Guinea-Bissau on 30 August 2015, after a long gap of 47 years. The foundation stone for the Kollam port complex worth Rs.5-crore was laid on 14 January 2016. MV Maria, a 160-metre-long Ro-Ro ship with a capacity to carry up to 150 loaded trucks and 210 cars, anchored at Kollam Port on 17th March 2016 from New Mangalore Port. This is the first ro-ro ship to call at any port in Kerala, Container handling crane, 600 HP Tug, container forklift, reach stacker etc were procured. Strengthening work of the existing wharf at Thankassery to permit the operation of mobile crane in 130T handling capacity completed caused the increase in container traffic. The cargo traffic has increased by 125 % during the 12th Plan period.

Development at other non-major port.

1. Procured a sophisticated dredger with capacity of 200 m³ solids / Hrand commissioned to maintain the required depths in the approaches and basin of non-major ports. Procurement of Binoculars, installation of solar power plant & construction of quarters have been carried out.
2. Transit shed for Vizhinjam Port completed and commissioned
3. Container handling crane, 600 HP Tug, Container forklift, reach stacker etc procured. Permanent custom facility and Electronic Data interchange terminal were raised at Vizhinjam cargo harbour.
4. Renovation of Signal station completed at Kodungalloor port.

Coastal Shipping

1. Coastal Shipping project flagged off at Kollam and Azheekal and regular coastal shipping between Gujarat- Kollam, Kolkata-Kollam, and Kochi –Kollam sectors occurred.
2. Incentives Schemes for promotion of coastal shipping @ Rs. 1 Rs. 10 per km has been sanctioned and implemented under Coastal Shipping Promotion fund launched during the 12th plan.
3. KSMDCL has chartered the vessel M.V. Sury mukhi and conducted container service between Gujarat & Kollam.
4. PPP for passenger service from cochin to Beypore has been finalized
5. Handling of over dimensioned cargo (OD cargo) for VSS & ISRO commenced at Kollam Port by constructing necessary facilities.
6. Shipping of cashew as bulk from South Africa to Kollam Port.

KIV Rules Implementation

1. Construction of Dry Dock at Alappuzha under PPP model at a cost of Rs. 9.42 Crores in progress.

Maritime Education & Training

1. Construction of the Kerala Maritime Institute Kodungalloor completed at a cost of 9.94 Crores and inaugurated on 11.7.2015.
2. Kerala Maritime Institute at Neendakara at a total cost of Rs 36 Cr progressing.
3. Established Kerala Institute of Hydrography & Advance Study Center (KIHAS) at Fisheries Institute Campus of Ernakulam.
4. 55 students successfully completed the Hydrographic Survey Course from which 34 got placement.

Hydrographic Survey

1. Launched 2 survey vessels named M.V. Nirdeshak and M.V. Pathfinder investing Rs.117 Lakhs.
2. Investigation and model studies for fishing harbors at Kasaragode and Manjeswaram completed
3. Survey in Kollam and Kottayam Districts for starting Seaplane Services completed.
4. Digitization of Kerala coast completed(expect Kannur & Kasaragod Dist).

Vizhinjam Deep Water International Container Transshipment Terminal

24. The flagship project of the State, Vizhinjam International Deep-water Multipurpose Seaport, one of the landmark and dream project took off in 2015. The ground-breaking ceremony of the project was held on December 5, 2015.
25. The Port is being developed on DBFOT Model and has been awarded to M/s Adani Vizhinjam Port Pvt Ltd. The Concession Agreement was signed between the Government of Kerala and the private partner on 17th August, 2015.
26. The total cost of the project is Rs 6770crores. Out of these Rs 4,089 crores will be the contribution of the private partner, Rs 1,463 crores will be put by State Government for 'funded works of the project abd Rs 1218 Crore is for land, R&R, external infrastructure. The Central Government will provide Rs 818 crores as Viability Gap Funding support and balance Rs 817 crore will be provided by the State Government out of the total Viability Gap Fund (VGF) of Rs 1,635 crore sought for the project. It's the first project in the State and first port in the country to receive VGF assistance from Ministry of Finance. The state government would get its portion of revenue, from non-port operations after 7 years of operation and from port operations after 15 years of operations.
27. The project will have a capacity of 10 lakh TEU in the first phase which will be scaled up to 30 lakh TEU. The construction period as per the Concession Agreement is 4 years. But it is expected that the project may be operational in a record time of less than 1000 days.
28. The progress achieved by Vizhinjam Deep Water International Container Transshipment Terminal are as follows:-
 1. Construction activity of the project commenced on 05th December 2015 and the following pre-construction works have been completed.
 1. Offshore Subsoil investigation
 2. Land based survey
 2. A temporary road connecting breakwater site and existing project road at Vizhinjam has been completed.
 3. Till end Nov 2016, the Concessionaire has achieved a progress of 486m core formation for the main breakwater.
 4. The dredging and reclamation work is on full swing.

5. Water supply Scheme for the project is completed and also water is supplied to the locality as part of CSR initiative
6. Necessary steps for ensuring uninterrupted power supply and establishing road/rail connectivity is also under progress.

Issues and Constraints

29. Despite the deliberate and concerted efforts of the preceding Five-Year Plans, the port sector still lags in various aspects due the multiple issues becoming the bottle necks in the development of the sector. The crucial issues hindering the growth of the sectors are summarised as follows which may be resolved through appropriate strategies to tap the full potential of the port sector in Kerala.

Port related Infrastructure

1. Lack of adequate draft and cargo handling equipments.
2. Lack of adequate berthing facility (number of berths , sufficient length for proper berthing of the vessels) at the non-major ports.
3. Lack of cargo handling equipments
4. Difficulty in land acquisition for infrastructure development due to severe obstruction from the public and also delay in getting clearance from the Revenue Department
5. Lack of ship repair units and parking space for vessels.

Fiscal Issues

1. Lack of adequate funding for infrastructure development and purchase of vessels.
2. Imposition of duty on bunker oil.
3. An exemption of only 25% from taxable value is being provided in respect of services rendered in relation to transport of coastal goods and goods transported through national water ways or inland water.

Legal/Institutional Issues

1. Lack of customs, Immigration Plant Quarantine Facilities.
2. Huge sum of cost recovery charges of customs
3. High import duty on equipments
4. Lack of clarity on cabotage laws.
5. Lack of clarity and flexibility in regulatory framework.
6. Stringent specifications relating to construction of vessels.
7. Lack of government support.
8. Income tax on crew.

Operational Issues

1. Low labour and equipment productivity levels due to the outdated equipments, poor training, low equipment handling levels by labour, uneconomic labour practices, idle time at berth etc.
2. Seasonal nature of non-major ports result in a halt of 3-4 months in monsoon seasons
3. Labour issues and Lack of skilled human resource to meet the requirement of the shipping sector.
4. High competition from road transportation
5. Non-availability /limited return cargo.
6. Lack of end to end transportation services/last mile connectivity.
7. Poor incentives
8. Procedural delay in implementation of schemes.
9. Lack of coordination from different departments in implementing the scheme

Challenges of Development

30. The development of the Ports in the State is only in the initial stages and as such is faced with so many critical factors which could be sorted out by an enlightened and proactive approach by developing port as a mass transport system. To overcome the situation and stabilize the cargo/passenger movement of the port the state has to offer handholding support in the creation of public private infrastructures, procurement and cost in transportation.
31. The state has initiated in developing the ports for handling both national and international cargo through container transshipment in the ports at Kollam, Beypore, Azhikkal, Vizhinjam in the first phase. In order to maintain stakeholder friendly port operations, green channel clearance and infrastructure facility may be provided by incorporating different stakeholders like customs, immigration, Plant Quarantine, Sales Tax and Port Department. The burden of deploying staff and facilities for the operation should be borne by the exchequer until the port become self-sufficient through its own revenue earnings.
32. The state Government should also create the State Maritime Board incorporating the different departments working in the sector which will enable timely decision making by integrating different activities of the ports by creating separate mechanism for the port operation.

Critical Observation

33. 12th Plan period was a remarkable period for the development of non-major ports. In the history of non-major ports of Kerala such an all-encompassing development projects and accompanying effective interventions for utilizing the fruits of the project have not materialized before. There was overall development in the cargo movement in non-major ports in the 12th Plan period. The facilities made at major ports to handle container cargo

and the commencement of coastal cargo movement had been the back bone of the new trend in the cargo movements.

34. There is need for evolving a comprehensive coastal shipping policy frame work and proactive role by State Government to promote the sector. The progress and policies will materialize a monumental development in non-major ports of Kerala during the 13th Plan period. Appropriate policy support and institutional frame work for the agencies involved are the prime need. These initiatives are to be supplemented by improved stake holders behaviour for business-friendly environment skill in the operation of modern machineries at the port with effective suitable training programmes for the port staff. The strategy to be pursued is that basic infrastructure facilities like construction of break waters, construction of jetties and wharves, dredging operations to maintain the required depths in approaches and basins etc, shall be undertaken by State level interventions. Regarding port operations, the statutory functions with vessels entry and exit, the Customs and port surveys and inspection, immigration mandated by ports and shipping act, operations of machinery and equipment and their maintenance etc shall be the obligations of port department. The opportunities are provided in the SAGARMALA PROJECT of Government of India which offer central assistance upto 50% of the cost for the development works in port sector. The assistance available under SAGARMALA for improving connectivity to all non-major ports may also be exploited.
35. Taking into consideration, the result of the 12th Plan, the development and intervention proposals for 13th Plan must be formulated to keep all the non-major ports vibrant with cargo/ passenger/ tourist operations during the 13th five-year plan period especially in the selected six ports.

CHAPTER 3
APPROACH AND ROAD MAP FOR THE 13TH PLAN

Approach to the 13th Plan

36. Appropriate government interventions and policy initiatives for the resolution of issues in the sector in the upcoming 13th Five-Year Plan remains critical for the full realization of the potential of the sector. The approach to the 13th Plan is as follows
1. To develop Coastal shipping in the State under the context of an Integrated Transport Policy through better co-ordination between different transport modes.
 2. To make Coastal Shipping a sustainable green and viable transport alternative considering target needs and inland transport potential. This needs a multi prolonged strategy with action plan and targets.
 3. To shift 20% cargo from roads to waterways by developing an integrated coastal and inland water transport system
 4. Sustainable use of all possible maritime resources for making available cargo for viable coastal trade through port led industrial development
 5. Catalyse/ initiate/ coastal transportation hub based regional development plan
 6. Formation of Port development mechanism in each port considering the specific nature of the port under green initiatives and adopting a focussed approach for developing identified ports for shipping and passenger transport
 7. Tourism related initiatives through the port development
37. For developing an economically stable model for the port, the activities are to be streamlined and made operational in a business-friendly environment of the state. Some of the activities are related to the financial flow to the port development and its timely implementation. But for developing a successful model for port operation and management the positive attitude of stakeholders are vulnerable and the deciding factor for its prospects. For creating a business friendly environment, the need of the hour is to maintain skilled man power, ultra-modern machinery and equipment and also making hassle free connectivity to the major highways and railway lines. Creating an industrial zone in the hinterland is an emerging need for the industrial and port development of the state.
38. The cluster of different department may be formed to develop port based industries and agro machinery production centres to utilize the coastal transport facility of the state.
39. The focussed development in the port and allied sector in the last one decade, paved the way for the visible development . The main non-major ports in the paths of development are Azheekkal, Beypore, Ponnani, Kodungallur, Alappuzha (Marina) Kollam and Vizhinjam.
40. Full-fledged mechanisation of the Port and the related infrastructure has created much momentum in the transport of cargo through the ports. The vision, objectives and road map of the 13th Five-Year Plan towards the streamlined development of the ports may be summed up as follows
1. Infrastructurally developed ports

2. Increase in passenger and cargo traffic
 3. Increased tourism activities through port development
 4. Promotion of coastal shipping
 5. Hinterland development
 6. Coastal community development
 7. Increased employment opportunities and hence economic development.
 8. To enhance competitiveness of Kerala ports nationally and globally.
41. The port sector is primarily a capital intensive sector, where the major source at present is funds allotted by the Government for Creation of Breakwater, Wharves, Transit shed, modern machinery, establishing port related infrastructures and passenger amenities. With development of Vizhinjam International Sea Port, the development of non-major ports will allow more traffic in coastal waterways. The above objectives to be integrated with the schemes by the Government of India in the development of sector. Interport relations, passenger Cruiz operation should be given more emphasis by implementing supporting schemes like subsidy and bank linked financial support.

Road Map cum Action Plan

42. A comprehensive and sustainable development of the port sector necessitates multi-pronged initiatives. Broadly these would cover port modernisation, coastal shipping, fiscal incentives, institutional development, tourism development, port led industrialisation, coastal community development, promotional schemes and changes in shipping policy. The specific measures proposed under each of these are as detailed below.

Port Modernisation

1. Provide modern /appropriate berthing/terminal facilities in non-major ports and selected inland ports.
2. Dredging at least up to 10m depth in all non- major depending ports in a phased manner.
3. Develop warehouses, bunkers, and industrial zones in the ports.
4. To segregate fishing and cargo, separate harbours for fishing need to be developed
5. Setting up ship repair facility and dry docks in selected ports.
6. Automated / modern cargo handling equipment in terminals in non-major ports.
7. Adequate measures to be taken to reduce dwell time and turnaround time at ports.
8. Provision on container repairing facilities
9. Enhancing port connectivity to hinterland.
10. PPP mode port development.

Proposed Action Plan

1. The following ports are identified for development during 13th Plan based on business models.
 1. Vizhinjam

2. Thankassery (Kollam)
 3. Alappuzha (Marina)
 4. Munambam (Kodungalloor)
 5. Ponnani
 6. Beypore
 7. Azheekkal
2. The ports of Kayamkulam and Munambam for Inland Cargo movement related developments by providing facility for River Sea Operation.
 3. Provide dedicated passenger berths at Vizhinjam, Kollam, Munambam Beypore and Azheekkal ports (coastal shipping)
 4. Improve the Basin depths available at Kollam from 8 m to 10 m under Sagaramala Project, at Beypore port from the present 5 m to 8 m in the 1st phase and to 10 m in the 2nd phase, at Azheekkal basin to 6m in the 1st and 10m in the second phase.
 5. Provide a dedicated passenger terminal at Beypore port for modern crafts and floating jetties and a passenger terminal at Vizhinjam port.
 6. Construct new cargo Terminal at Azheekkal port for cargo port/passenger operation.
 7. Improve port connectivity at all non-major ports by
 1. Providing 4 lane road connectivity to NH from Azheekkal port.
 2. Providing 4 lane road from Meenchantha to Beypore port
 3. Provide 4 lane roads in Eravipuram – Kollam sector and extend the same to Varkala.
 8. Extending the breakwaters at Beypore and Azheekkal ports to increase the depth in the approach channel to 10 m.
 9. Construct Berth at Kayamkulam Harbour to ensure inland connectivity.
 10. Conduct capital dredging through Maritime Board and HED to increase the navigable depths in non-major ports to meet the requirements of development in non-major ports.
 11. Strengthening the existing cargo wharf at the main breakwaters of Vizhinjam
 12. Installation of Petroleum storage facilities at Azheekkal and Kollam Ports and conducting special Coastal transport services for petroleum products through PPP/ Marine Board/ Private sector.

Coastal Shipping

1. Abatement of service tax
2. Subsidy for indigenisation of shipping industry/construction of River sea vessels.
3. Subsidy and incentive for the promotion of coastal shipping
4. Adequate measures to be taken to reduce dwell time and turnaround time at ports.
5. Establishing EDI facility in Ports
6. Safety & Security in the operation including National Security in the Coastal Sector
7. Develop business models for each port.
8. Hazardous cargo transportation to be moved to the Coastal shipping route wherever feasible.

Proposed Action Plan

1. Service tax exemption granted to Rail and road also to be extended to coastal shipping
2. Duty free fuel provided to foreign bound vessels also to be extended to coastal shipping.
3. 30% Capital Subsidy to coastal shipping vessels to be given at least for the initial 5 years.
4. Special subsidy scheme for attracting regular cargo service of petroleum products from Cochin to Kollam and Cochin to Azheekkal (Coastal Shipping)

Fiscal Incentives

1. Custom duty waiver for importing shipping vessels.
2. Rationalization of Port charges
3. Provision of recovery services
4. Cost plus models to support coastal shipping

Proposed Action Plan

1. The existing incentive scheme for coastal cargo movement may be extended to industrial cluster projects to be set up at all ports
2. Assistance for procurement of Ships/barges under state and central schemes
3. Encourage private entrepreneur to commence coastal passenger services and cruise operations utilising the assistances offered by SDC (Sagaramala Development Company).

Institutional Development

1. Kerala Maritime Board to be constituted.
2. Constitution of a program management unit with qualified personnel within the KMB for facilitating and monitoring the implementation.
3. Human resource upgradation.
4. Skill Capacity development.
5. Refinement in the maritime education.
6. Development of HSW and HED as nodal agencies

Proposed Action Plan

1. Convergence of all concerned government departments/agencies in the State under the Maritime Board.
2. Conduct appropriate training programmes in training institutes of ports department.
 1. Empowering the coastal communities with the special technical skills required for port operations with particular emphasis on handling port machinery in the optimum way.
 2. Training courses at Maritime Institute at Kodungalloor and Neendakara.

3. The Hydro graphic Survey courses conducted by the Hydro graphic training institute to be affiliated with CUSAT. Project Cell in HED to be equipped for port development as per International Standards.

Tourism Development

1. Inland Marina/Catamarans /Cruise vessels / Cruise terminals and terminal amenities at ports
2. Coastal tourism activities
3. A right balance of optimum passenger capacity, optimum speed, adequate engine capacity, fuel consumption and affordable fares should be accomplished.
 1. The Coastline should be made pollution free and efforts to be taken to make the journey pleasant.
 2. Marketing efforts such as road shows, stakeholder workshops to educate the target passenger segment.

Port Led Industrialisation

1. Establishment of Coastal Economic Zones in selected regions along the coast line.
2. Development of port proximate discrete manufacturing clusters eg:- electronics, furniture, automotive, apparel, leather, footwear and food processing.
3. Sufficiently skilled population in the adjoining areas.
4. Hinterland development for specific industrial units.
5. Modern port infrastructure and seamless multi modal connectivity.

Proposed Action Plan

1. Set up Port related industrial clusters for (1) Marine products (2) electronic equipment's (3) Industrial parts (4) wooden furniture (5) steel products (6) ship building considering the specific nature of the hinterland
 1. Munambam for marine products
 2. Electronic equipments at Kollam and Azheekkal ports
 3. Industrial parks at Kollam, Beypore, Azheekkal, Ponnani ports for steel related, food processing plants, cashew products, wooden furniture

Coastal Community Development

1. Skill development.
2. Uplifting fishermen and other local communities
3. Island Development

Proposed Action Plan

1. Creation of Community Development Fund to fund projects and activities.

2. Ensuring uniform access to basic infrastructure such as housing , electricity, transport accessibility and promoting sustainable fishing management.
3. Assessment of environment and social impact of projects before commencement of the project.

Promotional Schemes

1. Central schemes for development of minor ports.
2. Establishment of Coastal Shipping Promotion Fund

Policy Changes

1. Mandate policy to transport select goods through coastal shipping so as to divert cargo traffic from road/rail to shipping.
2. Implementation of Kerala Inland Vessel Rules and strict enforcement.
3. Green Port Initiatives: The non-major Ports and environments may be made environmental friendly by implementing appropriate and suitable interventions with public/stake holder participation.
4. For cargo amenable to water transport , congestion fee/tax to be imposed if transported by alternate transport modes.

Shipping Policy Changes

1. Review of river sea vessel notification to reduce operational cost.
 2. Cabotage policy to be reviewed and strengthened.
 3. Vessels and barges that can move through shallow waters needs to be encouraged.
 4. Incentives to use green fuel (CNG) in vessels to be provided.
 5. Provide infrastructure status to coastal shipping
43. Developments mentioned above are to be implemented exploring the assistance for the state, central government schemes and through private participation wherever possible.

Vizhinjam Deep Water International Container Transshipment Terminal

44. The development of Vizhinjam Deep Water International Container Transshipment Terminal is planned in three phases. Construction activity of the phase I costing Rs 6770 Crore commenced on 05th December 2015 and achieved a progress of 20% and the terminal is expected to be operational by 2019 which includes breakwater of 3100m ,800 metre container berth and another 500 metre fishing berth.
45. The phase II(2024 - 2027) includes additional berth of 400m and the phase III (2034-2037) includes additional berth of 800m with capacity augmentation of 1.5 Million and 2.2 Million TEU per annum respectively. The phase I spanning in the 13th Plan requires estimatedly Rs 2133 Crore as state support.

Opportunities under Sagarmala projects of Government of India in the Port Sector

46. Sagarmala” is the Government of India’s flagship program with the objective to promote port-led direct and indirect development with infrastructure to transport goods to and from ports quickly, efficiently and cost-effectively through
 1. Port modernization
 2. Port connectivity
 3. Port lead Industrialization
 4. Coastal Community development

47. Even though the developments already approved in the Sagarmala projects are mainly for other coastal states than Kerala, there is scope for the Kerala State to jump in the Sagarmala tide and swim along with the current. As part of the above scheme the proposal for upgradation of Azheekkal Port at Kannur including construction of coastal berth, dredging, extension of breakwater etc construction of Passenger Terminal at Kollam Port have been submitted for approval. As the State Government normally finds it difficult to develop the ports with its own resources due to the substantial investment required, the opportunities under the Sagaramala project must be resourcefully utilised.

ANNEXURE 1

Outlays and Targets Proposed for 13th Plan for Various Schemes

Sl. No	Name of the Sector	Plan allocation in Rs. Lakhs	Eligibility under Sagarama la	Key interventions	Assistance from Sagarama la	Remarks
1	2	3	4	5	6	7
1	Augmentation of Workshop and stores Organization	800	Not Eligible	<p>1. Procurement of necessary stores and spare parts all the machinery and equipment's like container handling cranes , forklift, container stacking equipment's</p> <p>2. Capital repairs and additions to vessels, machinery to be carried out at workshops at Neendakara and Beypore</p> <p>3. Setting up workshop organizations at Azheekal</p>	Nil	<p>Spares for container handling cranes procured for Thankaserry and Azheekal Ports are costly items and are to be sourced from manufacturers</p> <p>Spares for container handling cranes are to be sourced from manufactures to avoid idling of the costly machinery already procured</p>
2	Research and Development, modernization of ports Hydrographic survey wing and harbor engineering department					

	a)Port	600		1.Setting up of a hydraulic modelstudy center at Kamalesawaram by HED	
	b)Hydrographic survey wing	500		2. Setting up of a project cell in HED exclusively for preparing projects for assistance under Sagaramala and other programmes	
	c)Harbour Engineering Department	600		3.Setting up of mobile laboratory by HED for quality control in the works 4. Kerala Maritime Institute at Kodungalore and Neendakara to be fully operational. Training in logistics at ports to be initiated at Neendakara apart from other traininglike seaman training etc. 5.Recognition from accredited institution for Hydrographic Survey Institute to be obtained andcontinuous regular courses for departmental staffsofPorts, HSW and HED to be conducted	
3	Development of Beypore Port	8000	Yes	1.Extensionof break waters to 10 mto facilitate	This isto increase the depth in

			future expansion	approach channel and basin and has to be given first priority
New Schemes	800	yes	2.Capital dredging of the basin to seven meter depth below chart datum from harbore entrance to the proposed location of dedicated berth for rice and pulses	
	2000	yes	3.Construction of a passenger cum cargo terminal for light ships and hover crafts near the islands on Beypore side for 200 m. length dedicated for coastal cargo	
	50		4.Operationalize the existing rail connectivity to Chaliyar side	
	2000		5.Introducing a Subsidy scheme for builders of sailing vessels, light ships and self propelled cargo barges of 1000 T capacity including R&D Assistance.	
		yes	6.Establish a steel cluster by KINFRA at Beypore making use of the land available with them	KINFRA

		50		7.Establishing Industrial Zone (SEZ),CFS in the hinterland,EDI facility	KINFRA
		10		8.Provide four lane road to the Beypore Port from Meenchanda	Proposal under Sagaramala
4	Development of Azheekal Port	50		Establishment of EDI facility	
	New Schemes	50	Yes	Establishing industrial zone (SEZ) for port related activities in the hinterland for specific activities	
			Yes	.Establishment of Industrial cluster for sea food under coastal economic zone for coastal development	Intervention by State
			Yes	Establishment of general food processing park	
			Yes	Establishment of an industrial park for steel based industries	All the development works to be included in the project for industrial cluster and provided for acceptance under Sagaramala project
			Yes	.Establishment of a ship building and repair cluster	Top priority be given for all development projects
				Establishment of petroleum compl ex	Furniture Industrial park already

		10000		Capital dredging to increase the depth to 7 meters and later 10 meters	included in Sagaramala project The basic fundamental requirement for all the developments and hence to be given the top priority
		5000		Establishment of apparel cluster Establishment of deeper berth for bulk cargo container operations	
		10000		Establishment of furniture, industrial park Extension of break water to 10 meter depth, Providing four lane traffic lanes CNN – Azheekkal to improve connectivity	
5	New Schemes for implementation by KSMDC	5000	yes	<u>Incentive schemes for encouraging coastal movement of Petroleum products</u> a. 25% subsidy for entrepreneurs entering coastal transportation for petroleum products	Under coastal shipping
		2000		b. Manufacturing suitable barges / lightships 25% subsidy on cost of barges	
6	Development of Vizhinjam Port				

	New Schemes			Providing passenger transportation with other required facility	
	a. Construction of passenger cum costal cargo berth for 200 m	5000			
	b. Construction of concrete transit sheds by transportation of Rice, pulses and edible cargo	100			providing connectivity safety and security measures, compound wall etc.
	c. <u>Old Schemes</u>	50			To meet expenditure on work contracts
7	Development of Thankassery Port <u>New Schemes</u>				
	1. Capital dredging to increase the depth to 7 m and later to 10 m	1000	Yes	Deepening the basin to 10m draft, at the approach channel to 12m draft	
	2. Construction of passenger cum costal cargo terminal	5000			
	Rail connectivity to Kollam	50			

**PROCEEDINGS OF THE MEMBER SECRETARY
STATE PLANNING BOARD
(Present: Sri. V. S. Senthil IAS)**

Sub: Formulation of XIII Five Year Plan (2017-2022) – Constitution of Working Group –
Port and Light Houses Sector - reg.

Ref: Note No. 260/2016/PCD/SPB dated 06.09.2016 of the Chief (i/c), PCD, SPB

ORDER No. SPB/295/2016/I&I (WG-7)

Dated: 20.09.2016

As part of formulation of XIII Five Year Plan, the State Planning Board has decided to constitute Working Groups to formulate draft proposals in the various major development sectors and sub sectors. Resource persons including Professionals, Administrators and experts connected with the sectors were identified as members of the Working Groups. Accordingly, the **Working Group on Port and Light Houses Sector** is hereby constituted with the following members.

Co-Chairpersons

1. Sri. James Varghese IAS, Principal Secretary to Govt., Govt. Secretariat, Thiruvananthapuram
2. Sri. K. Mohandas, Retd. IAS Officer, 10 A1, Artec Kalyan, Opposite Tagore Theatre, Thiruvananthapuram -695010

Members

1. Sri. P. I. Sheik Pareeth IAS, Director, Directorate of Ports, Valiyathura, Vallakadavu P. O., Thiruvananthapuram.
2. Sri. Subrata Biswas IAS, Additional Chief Secretary, Public Works Department, Govt. Secretariat, Thiruvananthapuram
3. Sri. K.R. Jyothilal IAS, Secretary, Transport Dept., Government Secretariat, Thiruvananthapuram
4. Sri. P. K. Anilkumar, Chief Engineer, Harbour Engineering Department, Kamaleswaram, Manacaud P O, Thiruvananthapuram
5. Sri. A. P. Sunderlal, Chief, Hydrographer, Hydrographic Survey Wing, Govt. of Kerala, Thampanoor.
6. Sri. N. Unni, Director, Inland Water Authority of India, National Waterway Road, Kannadi Kadu, Marad, Ernakulam 682304
7. Sri. Suresh Babu A.S., TBRA – 30, Chithra Seema, LIC Road, Thirumala, (Near Vijayamohini Mills), Thiruvananthapuram

8. Sri. Sivaraja Vijayan, Retd. IAS Officer
9. Sri. C. D. Nandakumar, House No 19/998A, Vrindavanam, Pullardesam Road, Palluruthi, Kochi 682006

Convener

Sri. Joy N.R., Chief, Industry & Infrastructure Division State Planning Board.

Co -Convener

Assistant Director, (Port Sector), Industry and Infrastructure Division, State Planning Board

Terms of Reference

1. To review the development of port and light houses sector with emphasis as to progress, achievements, present status and problems under its jurisdiction during the 11th and 12th Five Year Plan periods.
2. To evaluate achievements with regard to the plan projects launched in the port and light houses sector, both by the State Government and by the Central Government in the State during these plan periods.
3. To list the different sources of data in regard to the port and light houses sector and provide a critical evaluation of these data sources, including measures for improvement.
4. To identify and formulate a set of output and outcome indicators (preferably measurable) for the port and light houses sector and base the analysis of the previous plans on these indicators.
5. To outline special problems pertaining to the port and light houses sector.
6. To suggest, in particular, a set of projects which can be undertaken during the 13th Plan period in the port and light houses sector.

Terms of Reference (General)

1. The Chairperson is authorised to modify Terms of Reference with the approval of State Planning Board. The Chairperson is authorised to invite, on behalf of the Working Group, experts to advise the Group on its subject matter. These invitees are eligible for TA and DA as appropriate.
2. The Working Group will submit its draft report by 1st December 2016 to the State Planning Board

3. The non- official members of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GOI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.

(Sd/-)
MEMBER SECRETARY

To
The Members concerned

Copy to:-
The Accountant General, Kerala (A&E) with C/L
The Sub Treasury Officer, Vellayambalam.
The PS to the Hon. Vice Chairman, State Planning Board.
PA to Member Secretary
CA to Member (KRR)
All Divisions, State Planning Board.
The Sr. Administrative Officer, State Planning Board.
Stock File.

Forwarded by Order

Sd/-
Chief, (Industry & Infrastructure Division)

**PROCEEDINGS OF THE MEMBER SECRETARY
STATE PLANNING BOARD
(Present: Sri. V. S. Senthil IAS)**

Sub: Formulation of XIII Five Year Plan (2017-2022) – Working Group on **Port and Light Houses Sector** - Re constituted- Orders Issued - reg.

Read: This Office order of even number dated 20.9.2016

ORDER No. SPB/295/2016/I&I (WG-7)

Dated: 23.09.2016

As part of formulation of XIII Five Year Plan, the Working Group on Port and Light Houses Sector has been constituted vide paper read above. The Working Group on Port and Light Houses Sector is hereby re-constituted by including one new member viz. Sri. P. Raju Ex. MLA.

Co-Chairpersons

1. Sri. James Varghese IAS, Principal Secretary to Govt. Govt. Secretariat, Thiruvananthapuram
2. Sri. K Mohandas, Retd. IAS Officer, 10 A1, Artec Kalyan, Opposite Tagore Theatre, Thiruvananthapuram -695010

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10. Sri. P. Raju Ex. MLA, Meppallil House, Kadamangalam, North Paravoor, Ernakulam.

Convener

Sri. Joy N.R., Chief, Industry & Infrastructure Division State Planning Board.

Co -Convener

Assistant Director, (Port Sector), Industry and Infrastructure Division, State Planning Board

Terms of Reference- Port and Light Houses

1. To review the development of port and light houses sector with emphasis as to progress, achievements, present status and problems under its jurisdiction during the 11th and 12th Five Year Plan periods.
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