

**‘A CASE STUDY OF KOTTAYAM PORT AND CONTAINER TERMINAL WITH SPECIAL
REFERENCE TO THE DEVELOPMENT OF INLAND WATERWAYS’**

**Submitted for the partial fulfillment of the requirement for the degree of
MASTERS OF BUSINESS ADMINISTRATION**

In

INTERNATIONAL TRANSPORTATION AND LOGISTICS MANAGEMENT

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DECLARATION

I, DILSHA HUSSAIN (Registration No.:2005305012) student of school of Maritime Management, Indian Maritime University-Cochin hereby declares that this project report titled “A CASE STUDY OF KOTTAYAM PORT AND CONTAINER TERMINAL WITH SPECIAL REFERENCE TO THE DEVELOPMENT OF INLAND WATERWAYS” submitted in partial fulfillment of the requirement for the degree of “Master of Business Administration in International Transportation and Logistics Management” is my original work carried under the guidance of my project guide. It has not formed the basis for the award of any degree/diploma or associate ship of any University/Institution. The information submitted is true and original to the best of my knowledge.

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PLACE: KOTTAYAM

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CERTIFICATE

This is to certify that, this project report titled “A CASE STUDY OF KOTTAYAM PORT AND CONTAINER TERMINAL WITH SPECIAL REFERENCE TO THE DEVELOPMENT OF INLAND WATERWAYS” submitted to School of Maritime Management, Indian Maritime University, Cochin Campus by DILSHA HUSSAIN for the partial fulfilment of the requirements for the award of the degree of MASTER OF BUSINESS ADMINISTRATION IN ‘INTERNATIONAL TRANSPORTATION AND LOGISTICS MANAGEMENT’ is a bonafide record of work carried out by her under my guidance.

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ACKNOWLEDGEMENT

I wish to express my sincere gratitude to the Management of the School of Maritime Management, Indian Maritime University-Cochin, who enhanced my knowledge in the field of International Transportation and Logistics Management.

Even though I have taken efforts in this project, it would have not been possible without the kind support and help of many individuals and organizations. I would like to express my sincere thanks to all of them.

My thanks and appreciation to my Institution in developing the project and people who have willingly helped me out with their abilities.

I wish to express my sincere gratitude and take immense pleasure in thanking my Mentor and Project Guide Dr.Yogamala H.L, HOD, School of Maritime Management for moral support, able guidance and useful suggestions which helped me in completing this project work in time. My sincere gratitude to other faculties of SMM.

Special thanks to Roopesh Babu, General Manager, Kottayam Port and Container Terminal Services Pvt.Ltd, who supported me with relevant data's.

I perceive as this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives. Hope to continue cooperation with all of you in the future. I also thank my family and friends for the continuous support in completing my project work.

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ABSTRACT

ICDs, or inland container depots, are dry ports suited to handle and temporarily store containerized cargo as well as empties. This means that clients in the hinterland will be able to obtain port services closer to their homes. A public user facility with fixed installations and services for handling and temporary storage of laden and empty import/export containers carried under customs control, with Customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit, and outright export. Their major goal is to enable international freight movements to take advantage of containerization on the inland transport phase.

Kottayam Port and Container Terminal (KPCT) is the first minor port and Inland Container Depot (ICD) using Inland waterways Kerala state, situated in Nattakom, on the banks of Kodoor river in National Waterway 9. This is also India's first port and ICD to use inland waterway with Customs notified area for Exports & Imports. The port integrates multi-mode freight traffic between Kochi Port and a vast hinterland of Kottayam district, Pathanamthitta district and Idukki district. This is a gateway port for Kottayam.

It is connected to Cochin Port by road and by an inland waterway through Vembanadu Lake at a distance of 85 Kilometers. The operation of port is based on multimodal transportation concept. The containers sealed by customs are shipped to stack points at Cochin Port using barge. The port is situated approximately 5 km south of Kottayam town and 1.5 km west of Main Central Road.

KPCT is a joint venture of Kottayam based young entrepreneurs and KINFRA 49 per cent stake held by the Kinfra and the rest 51 per cent by the industry, NRIs and others. The construction of dry port commenced in 2006 and the port was inaugurated on 17 August 2009 by Minister for Industries, Kerala Government Shri. Elamaram Kareem. The port remained inactive for next four years and the barge at port that was lying idle was rented to Travancore Cements. In January 2013 the port officially received mini port status till then it was called Kottayam Depot or dry dock. In November 2016 after receiving back the rented barge trial run was conducted with it by carrying 6 Trans Asia containers between Kochi port and Kottayam. The port received its first container cargo through barge from Kochi on 9 March 2019. The cargo contained consignments of TJP Rubber Industries and Diamond Flour Mills based at Kottayam.

The port has a capacity to handle barges of 10 TEU. The jetty has berthing facility for barges measuring 50×12 m. It has a 40,000 Sq ft Warehouse for export, import and hazardous goods and computerized management of freight. It is situated in a land area of 10 acres. The port has a Reach stacker and customs clearance facility.

An inland container depot serves as a stop-gap point in the hinterland for cargo that has to be kept or prepared for travel. It can also be used to load and unload cargo.

The COVID-19 pandemic has had a massive impact on trade, both export and import. However, as the world steadily returns to normalcy and adjusts to the new normal, trade activities are gradually improving. As a result, smooth and effective Inland Container Depots are required.

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CHAPTER 1 - INTRODUCTION

DRY PORT

A dry port is an inland intermodal terminal directly connected by road or rail to a seaport, operating as a center for the transshipment of sea cargo to inland destinations.

In addition to their role in cargo transshipment, dry ports may also include facilities for storage and consolidation of goods, maintenance for road or rail cargo carriers and customs clearance services. The location of these facilities at a dry port relieves competition for storage and customs space at the seaport itself.

A dry inland port can speed up the flow of cargo between ships and major land transportation networks, creating a more central distribution point. Inland ports can improve the movement of imports and exports, moving the time-consuming sorting and processing of containers inland, away from congested seaports.

An inland port is a physical site located away from traditional land, air and coastal borders with the vision to facilitate and process international trade through strategic investment in multi-modal transportation assets and by promoting value-added services as goods move through the supply chain.

ROLE OF INLAND CONTAINER DEPOT

An Inland Container Depot (ICD) is a container storage facility situated in the hinterlands, away from any major port. Shipping companies use ICDs to store and move shipping containers before and after transporting them to the seaport.

As they are located away from the seak or any major river routes, Inland Container Depots are also sometimes referred to as the 'Dry Ports.'

WHY IS INLAND CONTAINER DEPOT IMPORTANT?

At an ICD, the sea custodians, freight forwarders, customs brokers as well as officials from the customs department provide their services to the importers and the exporters. They process their shipment near their godowns and factories, away from the far-off ports. ICDs help de-stressing and decongesting the ports where the storage spaces are limited due to the land's judicial use.

FUNCTIONS OF INLAND CONTAINER DEPOT

As Inland Container Depots act as a makeshift warehousing storage for twenty-foot- ;

- ICDs are physical facilities that store the containers temporarily before they are moved to the port and loaded on the ships. Exporters can also place their cargo inside the containers at an ICD.
- Along with being a storage facility, ICDs can also provide export and import customs clearances. All the services that are provided at a port, can also be availed at the ICD situated far away from the port.
- ICDs also act as servicing and repair facilities for containers and other moving equipment.

ADVANTAGES AND DISADVANTAGES OF INLAND CONTAINER DEPOT

- Inland Container Depots provide facilities like custom clearances as well as other export/import procedures in the mainland, near large industrial complexes, away from the seaports. Once the cargo is cleared at the ICD, it does not have to go through customs at the port and is cleared for export.
- ICDs reduce the overall movement of empty containers by providing consolidation facilities for Less than Container Load (LCL) shipments in the hinterland.

- ICDs ensure that the costs of exporting and importing goods remain competitive by providing all the facilities in the hinterland.
- ICDs help in increasing the exports of a country by building feeder infrastructure for the ports.
- ICDs help in decongesting vital port spaces
- ICDs help prevent exorbitant port docking charges in the form of port demurrage charges by providing an local warehousing solution
- The benefits of containerization can be fully availed only when we have a good network of ICDs. Exporters can take advantage of containerization when they can export their cargo via ICDs.

DIFFERENCE BETWEEN CONTAINER FREIGHT STATION (CFS) AND INLAND CONTAINER DEPOT (ICD)

A freight station for shipping containers is located near a seaport and mainly consolidates and segregates the cargo. CFS majorly handles LCL shipments, since they require consolidation services. CFS is set up to decongest the ports and free up the valuable physical space near the sea.

ICDs are located far away from the ports and connect the ports with the hinterlands. All the customs related services that are available at the ports, can also be availed at the ICDs, along with consolidation and storage of cargo.

TYPES OF STORAGE AT ICDS

ICDs only allow for storage of containerized products, which generally include the popular 20 feet equivalent shipping containers & the forty feet equivalent containers. Although, refrigerated shipping containers and smaller sized containers are also regularly stored at the ICDs.

BARGE

Barges are crucial for keeping the inland waterways running smoothly, it is a marine vessel that's primarily used to carry cargo. Barges don't have a motor or engine and don't move independently. Instead, they move with the help of a towboat or a tugboat. They are flat-bottomed, and used on lakes, throughout canals, at seaports, and of course, across inland waterways.

The biggest difference between a barge and a ship is that barges are flat-bottomed and aren't self-propelling. Because of this, barges are much harder to

maneuver. Barges are also used primarily for transporting cargo and don't typically travel across international waters while ships can carry cargo or people.

Barges fall into categories based on how they're being used and how much cargo they can hold. They range in size and cargo capacity, with the largest vessels measuring 200 feet long and holding nearly 3,000 tons of cargo. They're also built according to the body of water they travel on the most. For example, the barges used at seaports may be larger than those that travel regularly throughout narrow inland waterways with tighter docking space.

Barges are used today for low-value bulk items, as the cost of hauling goods by barge is very low. Barges are also used for very heavy or bulky items.

BENEFITS OF BARGE TRANSPORTATION

When it comes to logistics, barges are an often-overlooked mode of transportation. While truck and rail transportation is commonly used and more visible, there's plenty of evidence to support the benefits of transporting goods across waterways instead of land. Ranging from financial to environmental, there's a long list of ways barge transportation is a better option.

- **LOWEST CARBON FOOTPRINT**

Least Community Impact Moving cargo on the inland waterways is the best bet for reducing carbon footprint because barges generate far fewer emissions than trucks or rail. Barge transport also results in fewer spills, which are more than double by truck and nearly three times by rail.

- **SAFETY**

Transporting freight in today's environmental climate means accepting the responsibility to transport it safely, and water transport has the fewest numbers of incidents, fatalities, and injuries of any surface mode.

The inland water transportation environment, with its slow transit speeds, is relatively mild, and shock and vibration levels, which are dampened out by the cushioning effect of the waterway itself, are not normally considered a problem.

The commodities on which our lives and livelihood depend have to be transported by one mode or another, and shallow-draft water transportation offers definite advantages. One is that water transport is significantly safer.

- AIR/NOISE POLLUTION

Noise levels have been rising due to increased traffic volumes, urban population growth, increased mobility, and the spread of mechanization. Transportation activity is, by far, the major source of noise, with road traffic the chief offender, even more so than aircraft noise. Air pollution caused by transportation includes both pollutants directly emitted by engines and secondary pollutants formed by chemical reaction in the atmosphere. Air pollution is caused by a wide variety of man-made and natural sources, with fuel combustion being the largest contributor. Again, road traffic is, by far, the dominant source of pollutant emissions.

Water transport consumes much less energy per ton-mile of freight carried than either rail or truck. This factor, combined with the remoteness of the vessels operating environment from population centers, substantially reduces the impact of its exhaust emissions.

- LAND USE/SOCIAL IMPACTS

While trucks and trains, to a degree, operate much closer to populated areas, barges quietly make their way along isolated waterways for most of their trip.

With some rail lines passing through major urban areas, the attendant noise impacts are experienced by nearby residents. Likewise, trucking operations commonly occur in or near high-density population areas that can be disturbing to an otherwise reasonably tranquil environment. By contrast, river barges, for the most part, have little impact on densely-populated areas. Barge transits are relatively infrequent because of the large tonnage moved at one time. River operations take place in channels away from the shore, and the engines of a towboat are usually below the water line, which muffles the sound. In addition, levees and seawalls also shield residents from towboat noise in the same manner as highway sound barriers do.

Surface traffic, both road and rail, near residential neighborhoods contributes to visual, physical, and psychological barriers that can lead to the fragmentation of those neighborhoods. Reduced social interaction, reduced access to other neighborhoods, and increased traffic congestion and/or changes in traffic patterns are often a result of increased surface traffic. Traffic congestion can lead to serious disruptions of police, fire, and medical services, as well as periodic isolation of parts of communities.

Since most of the right-of-way for water transport is provided by nature, navigation is less likely than the other transport modes to be competing with non-transportation uses for land area, especially in urban locations. Concerning new land acquisition, commercial waterway activity preempts very little land.

- ENVIRONMENTAL ASPECTS

The environmental impacts of water transportation vary from river to river and project to project, but in many cases, the environment is not noticeably affected by waterway freight transport. Where it does have a negative impact, the effect is usually minimal.

The companies that make up the barge and towing industry have a reputation for a strong environmental stewardship and are dedicated to improving the compatibility of their operations with the environment in an effort to eliminate environmental incidents and reduce environmental hazards to an absolute minimum. This commitment is evidenced by the following fundamental principles that these operators have established;

- Make environmental protection a priority in business planning.
- Maintain active and effective environmental policies and programs designed to protect the environment.

- Conduct business and operate and maintain vessels and facilities in a manner that protects the environment, as well as the safety of its employees and the public.
- Develop and implement company programs that address education, training, and communications of environmental policies and procedures. Emphasis will be placed on the importance of strict compliance with federal, state, and local laws and regulations regarding marine safety and the environment.
- Maintain and update emergency response plans that allow the companies to respond swiftly to environmental incidents and minimize environmental damage.
- Actively participate with government and other interested parties in creating responsible laws, regulations, and programs that safeguard the environment.
- Seek out and respond to proposed environmental, matters or concerns from either public or private sectors.
- Strive to reduce vessel-generated waste and emissions by improving operating procedures.

TYPES OF BARGES

- **INLAND BARGES**

The majority of barges being used on the inland waterways are inland barges. They're specifically designed to operate on smaller bodies of water and are the most cost-effective method of transportation for large volumes of cargo or items that are oversized and aren't able to be transported via truck or rail.

- **DECK BARGES**

Consisting of a deck-like platform, deck barges carry cargo like construction equipment, natural rock and stone, large metal pipes for infrastructure growth, and even livestock like horses and cattle. Deck barges can also be docked for extended periods of time and act as "dry land" for workers and machinery who need more space for equipment along the waterways.

- **CRANE BARGES**

Also called spud barges, these vessels have a squared-off or boxed stern that keeps it afloat under the weight of a crane. There's additional support in the bulkhead and deck frame construction, and the deck of the barge uses specialized

crane mats for traction. They are used to lift items while docked or during offshore construction.

- HOPPER BARGES

Hopper barges are used for large volumes of cargo like sugar, steel, grain, coal, and ore, among a number of other commodities. They feature double-hull construction for maximum flotation and can either be open or covered, the latter of which helps protect cargo from weather and other elements during long trips on the waterways.

- SHALE BARGES

These barges are constructed like deck barges with cargo bins or hoppers and used in the oil and gas industry to transport cargo from the drilling site. This cargo carries numerous environmental restrictions and must be disposed of by a processing company with approval and expertise. Shale barges are highly regulated by the US Coast Guard to ensure compliance.

- LIQUID MUD BARGES

Liquid mud barges have pipes and pumps on-board to circulate and dispose of fluid material, typically at inland oil drilling sites. These barges are constructed

with cargo storage bin tanks at the deck level with four separate compartments.

There are also occasions where land-based facilities use these barges to increase storage capacity.

- **OCEAN BARGES**

Ships that can't make it to port due to size or shallow water use ocean barges to help transport cargo directly to land. Ocean barges are designed and constructed to withstand the elements of nature and are heavier than other types of barges. That makes them more expensive to build and maintain, and more difficult to tow.

While these are the most commonly used barges on inland waterways, there is also a long list of other types of barges: Power barges are like mobile power plants, barracks barges can be used for residential purposes, and there are even royal barges used to transport and celebrate leaders and members of loyalty.

OBJECTIVES OF THE STUDY

To analyze the efficiency and overall operations of the Kottayam port and container terminal and to point out the use of barge available in the port and the

implications if the Kottayam port introduces and develops barge through inland waterways.

SCOPE OF THE STUDY

Promote environment protection by shifting from Road transport to water transport.

RESEARCH PROBLEM

- Kottayam port and container terminal is the only ICD connected with national waterways in the banks of Kodoor river in National waterway 9. In addition, Kottayam port is connected to Kochi port, and vast hinterland of Kottayam district, Pathanamtitta district and Idukki district. And therefore the question is why Kottayam port and container terminal is not using barges through inland waterways?

- What would be the Implications if Kottayam port and container terminal introduces and develops barge through inland waterways?

RESEARCH METHODOLOGY

Secondary data has been used in this study.

LIMITATIONS OF THE STUDY

There are some limitations in completing this research,

- Time limit for collecting data was less so sufficient number of data cannot be collected.
- This study is limited to Kottayam port and container terminal situated in Nattakom, on the banks of Kodoor river in National Waterway 9.

CHAPTER 2

COMPANY PROFILE

KOTTAYAM PORT AND CONTAINER TERMINAL [KPACT]



The Kottayam Port and Container Terminal (KPCT) is Kerala's first small port and inland container depot (ICD), located in Nattakom on the banks of the Kodoor River on National Waterway 9. This is also India's first port and ICD to utilize an inland waterway for exports and imports with a Customs notified area and the only port in India which is connected by national waterways. The port connects

Kochi Port to a huge hinterland of Kottayam, Pathanamthitta, and Idukki districts, allowing for multi-mode freight traffic. This is a gateway port for Kottayam.



At a distance of 85 kilometers, it is connected to Cochin Port by road and an interior canal via Vembanadu Lake. The port's functioning is based on the notion of multimodal transportation. Customs-sealed containers are transported by barge to stack sites at Cochin Port. The harbor is around 5 kilometers south of Kottayam town and 1.5 kilometers west of the Main Central Road.

The State Government has accorded minor port status to the first inland container depot (ICD), which is nearing completion at Muttam in Kottayam district on public private participation under the Indian Ports Act 1908.



The project is a joint venture promoted by Kerala Industrial Infrastructure Corporation (KINFRA) and the South Indian Chamber of Commerce and Industry (SICCI) with Central Government assistance.

- This is an export promotion facility being set up with assistance from the Union Commerce Ministry, which is to be operated through road and water ways.
- The facility will have the capacity to handle 250 TEU of containers, for both export and import.
- This is being set up with the intention of catering to the needs of nearly 1,000 registered export/import concerns operating from the districts of Pathanamthitta, Kottayam and Idukki.

- The project has the uniqueness being the first inland waterway port in India.



Declaration of Kottayam as a minor port will also regulate the movement of vessels and prevent clandestine operations as well as assist in the Government's efforts for industrial, agricultural and tourism development of the region and development of inland waterways, a release issued by KINFRA said.

Officials in the SICCI pointed out that the Kottayam Port and Container Terminal has been mooted to utilise the immense potential of the inland navigation in Kerala.

The project will be of real utility to those in the central part of the State once the Shipping Ministry's proposal to connect the Vaikom-Kottayam waterways to National Waterway No 3 materialises.



The objective is to promote cargo consolidation and use the potential of inland waterways. Moreover, the total logistic cost can be reduced by resorting to road as the mode of transport, to Kochi port from Kottayam.

It is pointed out that nearly 18,500 TEUs of containers are being transported from the central part to the port by road.

The setting up of an ICD at Kottayam will help increase export activities from these districts.



HISTORY

KPCT is a joint venture between Kottayam-based young entrepreneurs and KINFRA, with the Kinfra owning 49 percent of the company and the industry, NRIs, and others owning the remaining 51 percent. The dry port's development began in 2006, and it was officially opened on August 17, 2009, by Kerala's Minister for Industries, Shri. Elamaram Kareem.

The port remained inactive for the next four years, and Travancore Cements rented the port's idle barge. The port was given small port status in January 2013; prior to that, it was known as Kottayam Depot or dry dock. [2] After obtaining the

rented barge back in November 2016, a trial run was done with it, transporting 6 Trans Asia containers between Kochi port and Kottayam. On March 9, 2019, the port got its first container cargo by barge from Kochi. TJP Rubber Industries and Diamond Flour Mills, both situated in Kottayam, were among the companies represented in the cargo.

During the financial year 2018-19, Kottayam port is anticipated to have handled roughly 1737 TEU (20-foot Equivalent Unit) containers and collected a customs charge of Rs 12.93 crore. The total amount of foreign exchange earned was Rs. 21 crore.



FACILITIES

The port has a capacity to handle barges of 10 TEU. The jetty has berthing facility for barges measuring 50×12 m. It has a 40,000 Sqft Warehouse for export, import and hazardous goods and computerised management of freight. It is situated in a land area of 10 acres. The port has a Reach stacker and customs clearance facility.

- Hassle free export import clearance
- Fully computerized and paper free environment and EDI connectivity.
- Strong room for storage of valuable cargo.
- Bank extension counter &ATM.
- Single window clearance for all the ICD operation.
- Online tracking of goods and Cargo.
- Jetty/Berth - The jetty would have berthing facility for barges measuring 50m X 12m
- Barge of 10 TEU capacity
- Container stuffing forklift - In order to stuff / load cargo into containers.
- Trolley units with Prime Movers.
- Reach stackers.
- Paved and unpaved Container yard.

- Flood Lights with High Mast Towers.
- Fire fighting equipment.
- Standby Generator.

THE PROJECT - KOTTAYAM INLAND CONTAINER DEPOT AND MINI PORT

The first PPP Minor Port and ICD Project in Kerala, the Kottayam Port and Container Terminal, was inaugurated on 17th August 2009. This is also India's first port (notified under Indian Ports Act) and an Inland Container Depot (ICD) to utilize inland waterway with Customs notified area for Exports & Imports. The Kottayam Port and Container Terminal is a first of its kind project of Public Private Partnership under the ASIDE scheme of Government of India promoted by South Indian Chamber Of Commerce and Industry and KINFRA. The total outlay of the project is Rs. 9.56 crores.

THE PROJECT

Kottayam is connected to the Cochin Port by an inland waterway which is the National Waterway No. III. The project being developed at Nattakom on the banks of Kodur River connects to Vembanadu Lake and the National Waterway III. As per a survey conducted by an external agency, there are over 1000 exporters in the three districts of Kottayam, Idukki and Pathanamthitta. Every year nearly 18,500 containers are transported from these districts to the Cochin Port by road. This project is to transport these containers in barges to Cochin Port through

Inland Waterway. Thus from the first year itself, an estimated 6,000 containers/year will be diverted from road to waterway.

PROJECTS HIGHLIGHTS

- The first Multi Modal ICD and Minor Port in India utilising inland waterway facility
- The first and only ICD in Kerala
- Hub port for 3 districts
- Beneficial for 1000+ Exporters/Importers of central Kerala
- Promotion and 100% utilisation of Inland water transport system.
- Estimated 6000 containers/ year will be diverted from road to waterway.
- Earning of carbon credit and reduction in road congestion
- The total logistics cost can be reduced by up to Rs 5000/- from the present cost by the road transportation to Cochin port from Kottayam.
- The first Export promotion infrastructure Development project in Kerala utilizing Inland waterway
- Transportation of containerized cargo by Road and through water
- Stuffing and de-stuffing of export & import container
- Customs office facility for exports & Imports

- Banking facility for Customs duty payment
- Implementation of Ro-Ro concept
- State of the art technology
- Online tracking of export /import goods
- Container yard

INFRASTRUCTURE AVAILABLE

- Total land area of 10 Acres 8,500 Sq.ft. Administrative building for Customs, CHA's, EDI department, ICD staff, Accounts, EDP, etc.
- 38,000 Sq.ft. warehouse facilities for export / import and hazardous cargo
- Container yard
- Gate complex
- Canteen
- Container Barge
- Compound wall as per Customs specification
- Material handling equipment's

CHAPTER 3

IMPLICATIONS OF DEVELOPING BARGE MOVEMENT

Kottayam port is the only inland container depot in India which is directly connected by National waterways. The port has a Barge of 10 TEU capacity, which is not functioning due to several reasons with government procedures being one among them. Several trial runs has been made successfully which showed the positive impacts of water transportation such as cost effectiveness, environment friendly, etc.

FEATURES;

- 6-hour journey - It takes the barge six hours to reach Kottayam from Kochi
- Distance by road: 100 km
- Distance by water: 85km
- 40% savings on transportation cost if barge is used.

NEWSPAPER REPORTS OF TRIAL RUNS CONDUCTED

➤ BARGE BRINGS FIRST CONTAINER CARGO TO KOTTAYAM PORT

Kottayam: The container barge service to Kottayam Port and Container Terminal is now on. The first cargo arrived from Kochi on 9th March, 2019. The maiden

commercial voyage to the port carried goods for TJP Rubber Industries and Diamond Flour Mills based at Kottayam.



The arrival was delayed after hyacinths got stuck in the barge's propeller near the Pallam boat jetty on the outskirts of Kottayam town. The journey resumed at 6pm after workers on a pilot boat and accompanying dredger removed the hyacinths.

Every barge has a capacity of 240 tons. Goods movement through water is cheaper too.

The facility at Nattakom is reportedly the first Indian Inland Container Depot (ICD) to make use of an inland waterway. Customs authorities are expected to de-notify four acres near the Kottayam Port to be used as storage area.

The trial run to transport goods to Kottayam Port through inland waterways was conducted successfully last month. Prior to that another trial run was carried out with empty containers.

This new service comes as a big boon to the business community who had been pressing for a similar service to improve the ease of transporting goods in the state. As it is more cost-effective in moving goods along the river, businesses are likely to see a substantial drop in expenses.

➤ CARGO MOVEMENT SET TO BE CHEAPER WITH KERALA'S WATERWAY-COASTAL SHIPPING LINK

The Memorandum of Understanding (MoU) between Cochin Port Trust and Kottayam Port - the first multi-modal inland container depot (ICD) in the country using inland waterways to move cargo - is expected to cut logistics costs by using the waterway linking Kerala's eastern and central Travancore regions with the International Container Transshipment Terminal at Vallarpadam in the Cochin Port Trust.

Compared with 2-3 per km for road movement of cargo, the cost of waterway movement is lower at 1.1-1.2 The congestion-free waterways also promise faster transit compared to congested roads.

Abraham Varghese, Managing Director, Kottayam Port, said the MoU envisages development works at the port with an investment of ₹35 crore, which includes procuring cranes, setting up modern berths and a new barge at a cost of 3.4 crore.

The barge in use currently has undergone an overhaul and is awaiting clearances from authorities before restarting service.

Kottayam Port currently handles 200 - 250 twenty-foot equivalent units (TEUS) of export-import cargo a month and the volume of export cargo has registered a monthly growth of 20 per cent. The cargo currently includes wheat, rubber products, spices, clinker, cement, machinery and newsprint, among others.

"We have already moved around 200 containers of wheat, shipped from Gujarat, and are expecting a significant increase in this cargo in the near term," Varghese said.

According to M Beena, Chairperson, Cochin Port Trust, the port handles 60,000 TEUs of gateway cargo on an average every month. This means some 2,000 trailers move in and out of Cochin Port daily. This traffic is increasing by about 10 per cent every year. Since the roads are congested, the movement through waterway and coastal shipping will cut transit time, Beena said.

To promote cargo movement through waterway, the port has waived the berth hire charges for the barge for the first six months from commencement of the service.

A cargo owner in Kochi, however, said both Kottayam Port and the ICTT operator should waive loading and unloading charges to make coastal movement viable. Such charges are not applicable to trucks.

Since Kochi is at the centre of Kerala, the distribution of goods to other parts can be handled through the non-major ports using the hub-and-spoke model. The container transshipment terminal can be the hub and the non-major ports connected to it would be like the spokes of a wheel.

➤ **KOTTAYAM PORT BARGES INTO THE THICK OF THINGS**

A Barge, loaded with machineries, successfully conducted its trial run from Kottayam Port to Eerayilkadavu via Kodimatha through the Kodoor River on Friday, giving a big fillip to the authorities' efforts to promote freight transportation through inland waterways.



The port authorities said the successful test drive has given a major boost to regular operation of transshipment containers from the Kottayam Port, the country's first inland container depot (ICD) project.

“We’ve been doing cargo container transshipment by road for the past five years. As part of the second phase, we’ve now successfully done it via waterways,” said Kottayam Port and Container Terminal Services Pvt Ltd General Manager K N Roopesh Babu.

He said Kochi-Kottayam container movement via waterways will become regular from the first week of March.

“The containers arriving in Kochi international Container Transshipment Terminal (ICTT) will be brought to Kottayam via waterways and then be moved to other

parts of Kottayam as well as Idukki and Pathanamthitta after Customs clearance procedures here,” he said.

“We’ve already operated more than 12,000 containers already, including both export and import. However, there was a slight delay in water movement of containers owing to various reasons, which are being rectified,” said Roopesh.

“Tender proceedings for purchasing a 150-metric tonne crane unit are in the final phase and the unit is expected to arrive in Kottayam within 15 days. “We need such a crane unit to operate container services,” he added.

The declaration of Kodoor River as the national waterway and more than five years’ experience in Customs clearance will be added advantage for the Kottayam Port. It will cut the logistics cost by 40-50 per cent.

The Kottayam Port, which is a private-public participation project, was commissioned in December 2009. The container movement through water is also expected to give a major boost to the Central Travancore’s agriculture sector. Spices, rubber and its products, newspaper reels, machineries and agriculture equipment can be moved through Kottayam Port.



➤ KOTTAYAM PORT STARTS DOMESTIC MOVEMENT OF CARGO

40-foot-long consignment from Gujarat brought by road from Kochi port

In a major boost to the manufacturing and trading sectors in the Central Travancore region, the Kottayam port, the first multi-modal Inland Container Depot (ICD) in the country using inland water navigation, has begun moving domestic cargo.

Marking the opening of coastal movement through the port here, a 40-foot-long container was brought in from Gujarat the other day. According to port officials, the consignment containing raw material for the natural rubber-based manufacturing units in 'the Kottayam belt,' was transported by road from Kochi.

Abraham Varghese, Managing Director, Kottayam port, said the port was preparing to conduct the coastal movement on a regular basis, besides the export-import operations. Till now, the clients in the region used to take delivery of their cargo directly from the Kochi port.

“This marks a shift from port-to-port service to a door-to door operation by which cargo travels from a port in Gujarat all the way to Kottayam. Besides bringing down the cost of transportation, it will also help de-congest the roads once we resume the barge operations,” he said.

Port officials claimed that considering the difference in ground rent and other costs between the ports at Kochi and Kottayam, the customer could save at least ₹3,000 per container by opting for a point-to-point service.

Meanwhile, the port officials have resumed consultations with a couple of barge operators for resuming water navigation. Upon closing a deal, the port would also require to take permission from the State government for commencing barge operations.

An application by the port authority seeking a licence to operate as a Customs Port under Section 7 of the Customs Act had been under active consideration of

the Central Board of Excise and Customs (CBEC).The licence will enable the port to switch its cargo traffic operations entirely to the inland waterways.

Launched in 2007, the ICD Kottayam currently operates as a dry port with road and rail as its two designated modes of transit.

FUTURE DEVELOPMENTS IN THE PORT

➤ KOTTAYAM PORT SIGNS MOU WITH KUWAIT-BASED AZIMAR FOR CONTAINER MOVEMENT

In a major boost to its operations, the Inland Container Depot (ICD) in Kottayam (Kottayam port) has agreed to work together with the Kuwait-based Azimar Shipping & Logistics LLP in container movement and setting up modern consolidated cargo warehouse in Kottayam.

Abraham Varghese, managing director of the Kottayam port, and Ani Peter, managing partner, Azimar, signed a memorandum of understanding (MoU) in this regard at a function held in the presence of Industries Minister P. Rajeeve and Registrations Minister V. N. Vasavan in Thiruvananthapuram on Monday. As per this, Azimar will invest in building a new barge with a capacity to carry 30 TEU (twenty-foot equivalent unit) of cargo.

The move comes as earlier attempts by the Kottayam port authority to build a new barge fell flat in view of fund crunch.

“At present, we have more than 400 units of container transactions per month. With the arrival of Azimar, we expect that to cross 600 units in the beginning and touch 1,000 units later,” said Roopesh Kumar, general manager, Kottayam port.

READY IN 6 MONTHS

Presently, the ICD runs its operations using a barge with a capacity of 10 TEU. The new barge is expected to be operational in six months. The ICD authorities expect the procedural formalities to elevate the dry port into a minor Customs Port to complete in the meantime, which will give a major boost to inland water movement of cargo.

Speaking on the occasion, Mr. Vasavan said the logistics sector in the State would receive a major boost with the full-scale movement of cargo through the Kottayam port. Industries Minister P. Rajeeve said arrival of more foreign investments to the State would encourage the ‘work from Kerala’ initiative.

- Kottayam Port is all set to commence coastal cargo movement from Kochi

In a major boost to its operations, Kottayam port- the first Inland Container Depot (ICD) in the country, is all set to commence coastal movement of cargo to and from Kochi on a regular note by next month.

Port officials said a high level team from the Cochin port is slated to visit the ICD on January 22 as part of granting the regulatory permission for coastal operations. During the visit, the team will also finalize a Standard Operating Protocol for barge operations, besides stacking and documentation.

ALTERNATIVE

The service is intended to provide an alternative to the truck traffic that has sporadically choked the roads slowing the movement of goods and raising questions about the port's ability to handle the growing volume of cargo.

Prior to commencing the regular service, the 10 TEU barge under possession of the ICD has been dry-docked in Kochi. A second barge with a capacity to carry 28 TEU cargo is expected to join the fleet in the next six months. "To begin with, we will be operating the barge three days a week and this will, be expanded as soon as the second vessel joins the fleet. A switch to the water route will bring down

the round-trip cost of a container from Kochi by at least 30 percent,” said Abraham Varghese, Managing Director, Kottayam Port.

Meanwhile, the port officials have also kick-started consultations with a few shipping lines operating in Kochi, seeking the possibility of opening their empty container yards here. Presently, only two shipping lines have recognized the port as their stacking points.

“The plan is to bring empty containers of these shipping lines on board the barge from Kochi on a rotational basis and develop the port as an export-oriented unit,” said another official.

Visiting the port a couple of days ago, Kottayam MP. Thomas Chazhikadan had said that the Inland Water Authority of India would be asked to remove the obstacles in the Pazhukkanila backwaters in Kottayam to facilitate cargo movement from the ICD

20% GROWTH

As per estimates the port here handles between 200 to 250 TEU of export and imports cargo on a monthly basis. Over the past one year the volume of export

cargo per month recorded a 20 percent growth to become 75 TEL. Rubber spices and machinery constitute a bulk of the export cargo from here.

CHAPTER 4

SUGGESTIONS AND CONCLUSIONS

SUGGESTIONS

- Compared to road and rail transport, moving goods using barge is cost efficient and environment friendly. Kottayam port and container terminal has a barge of 10 TEU capacity.
- At ICTT, Vallarpadam, separate ports for barges shall be developed.
- They should get feedback from its customers in order to learn about their issues and suggestions.
- Increasing the number of barges, trucks, and warehouse spaces, among other things.

CONCLUSION

- The Cochin Port Trust will benefit as total logistics cost can be reduced. The ICD will be 85 km away from Cochin port. For transporting one TEU costs cargo around Rs 8,500, but the same cargo can be transported by inland waterways for Rs 3,000.
- Inland waterways, considered to be the lifeline of Kerala, has gradually lost lose its importance with the development of

road and railways. The use of waterways has thus been restricted to those areas where other transport modes could not serve as alternative. However, integration of maritime and inland water transportation has become a subject of discussions in various seminars, highlighting the significance of coastal shipping in the maritime State of Kerala.

BIBLIOGRAPHY

WEBSITES

https://en.wikipedia.org/wiki/Kottayam_Port

<http://www.kottayamport.com/>

<https://web.archive.org/web/20110721161321/http://industriesministerkerala.g>

<ov.in/achivementknowledgefiles/48Kottayam%20Port.pdf>