A CRITICAL ANALYSIS ON NATIONAL WATERWAY-3

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ABSTRACT

India is flourished with Inland waterways for years but they were started calling as National water way with numbers from NW-1 to NW-111 (111 no. of National waterways are formed existing as of now). There are enormous possibilities to build on these waterways for both Cargo as well as Passenger movement. This study is all about how much opportunities are there in the state of Kerala with the efficient use of National water ways-3. National water ways 3 is a big opportunity for cargo movement being done mostly in and around the area of mostly Southern part of Kerala.

Keywords : Inland water ways, IWAI, NW 3, Freight price.

I. INTRODUCTION

National water ways system in INDIA

The Inland Water ways Authority of India appeared On 27th October 1986 for guideline and improvement of inland waterways which comprises transportation and route, through it. The Authority principally attempts ventures which empower IWT foundation improvement and support on national waterways through concede received from the Shipping ministry. The Head office of Inland water ways Authority of India is at Noida. The Authority has likewise Regional Offices at Guwahati, Kolkata, Patna, and Kochi, and Sub-workplaces at Allahabad, Varanasi, Bhaglapur, Farakka, Hem Nagar, Dibrugarh, Kollam, Bhubaneswar, and Vijayawada.

India is honored with around 14,500 kms of safe channel which involve waterways, rivulets, channels, inland waters, and so on. In excess of 55 million tone of payload is being moved yearly by IWT (Inland Water Transportation), a fuel which is effective and condition well disposed mode. It's activities are confined to few stretches in the Ganga to Bhagirathi to Hugly waterways, then the Brahmaputra stream, Barak waterways, Goa Conduits, the land waters in State of Kerala, Inland waters in Mumbai and the delta shaped locales of the Krishna and Godavari waterways. Other than these sorted out activities utilizing motorized vessels, nation pontoons of different limits likewise work in a large number of the streams and channels, in numerous states all through the nation, and generous quantum of payload and travelers are transported in this gradually creating and arranging division.

Inland Water Transportation (IWT) is particularly economic, and additionally fuel efficient and in a good condition, and business situated method of Transport. Today is perceived everywhere throughout the world for the very natural bit of leeway of being the least expensive method of transport for mass haulage over long separation between spots arranged along the waterfront. It's vitality, productivity, low contamination and potential for work are all around acknowledged.

National Waterways-3
Traversable Fairway:

A navigational direct of 38m width in more extensive compasses and 32m in tight reaches with 2 m profundity is to be created for route in NW-3. To build up the route channel with above measurements, 40 Lakh cu.m capital digging was visualized over a length of around 87 Kms. As on July 2014, IWAI has completed about 36 lakh cu.m. digging more than 80 kms shore length. With this, however, focused on profundityof two meters has been given in the whole NW3, yet extending of the route channel to the required width of 32 meters. The parity reefs of around 6 kms are at Alappuzha/Kuttanad (2 kms), KayamkulamKayal region (1.5kms) in Alappuzha District and at Chavara (3.5kms) in Kollam District, for which the work is in advancement.

Terminals:

Out of absolute 11 areas conceived for the setting up of terminals, eight have just been built at Kotapuram, Aaluva, Maradu, Vykkom, Cherthala(Thanneermukkam), Thrikkunnappuzha, Kaayamkulam (AyiramThengu) and Kollam. Development of one terminal at Alappuzha was in advancement at an expense of Rs.9.04 crores and 88% works have been finished as on July 2014. Terminals at staying two areas in particular Kakkanaadu and Chavara are proposed to be developed in the following stage subsequent to firming up the payload accessibility. For compelling use and to support private area cooperation, activity and upkeep of IWT terminals at Aaluva, and Vykkom have been re-appropriated to KSINC (A Govt. of Kerala Undertaking). What's more, for decongesting the Kochi city by giving an other transport course to the Vallarpadam holder terminal, IWAI has set up a couple of Ro-Ro terminals at Willingdon island and Bolgatty together with the Cochin Port Trust. The transportation of compartments along this course is being done effectively since February 2011.

Objectives of the Study

• To study the possibilities of Inland WaterwayTransportation ( IWT ) in India

• To Show how much is the opportunities for National water ways 3 in the State of Kerala for cargo movement

• To analyse the current treatment government giving to NW 3

Benefits of the study

• This study is able to know more about Inland waterways in India, especially in Kerala (NW – 3).

• Knowledge about Water currents in Kerala will make the readers much better about the possibilities and opportunities about the efficiency.
• Knowledge about IWT (Inland waterway Transportation) and IWAI (Inland Waterways Authority of India) and their functionalities and how much public can contribute to them to grow.

Commercial Potential Viability of National Waterways

From a production network point of view, the fundamental purpose behind utilizing inland channel as a method of transport is the way that it diminishes the complete cost, when utilized as a major aspect of the start to finish calculated necessity of freight development.

Topographical bit of leeway of water crossing over: This is most grounded when the development is over the stream, however can be available in some different developments. Instances of these are traveller’s ship benefits crosswise over streams and the transport in Sundarbans zones in India and Bangladesh.

Task based necessities of products: This interest is for material identifying with a specific venture movement. It comprises development products and moving of gear identified with the undertaking, where our task is stream based (for example stream spans, hydro electric power plants), as it usually appealing, as the goal is simply the water sites. Indeed, even else, it might be suitable sometimes.

Enormous clients with standard demand:

Existing traffic: Since greatest model here is the iron mineral fare prerequisite from some mines in Goa, which access the Mandovi and Zuari waterways. This development is relied upon to proceed, alongside development of mineral from Karnataka, subsequent to mixing, for the following five to seven years in any event. Certainty in Kerala has been a relentless client for the vast majority of its info crude materials.

Operational viability

Expenses: IWT is a capital serious industry, notwithstanding for administrators, as noteworthy speculation is required in vessels, for a begin. Speculations required to give and keep up the conduit and terminals are of a much higher scale and go under the heading of framework. In the present condition, it is just IWAI which can keep up the conduit and a couple of huge clients (for example: task based shippers and mass producers like processing plants and steel plants) who can take an interest in speculations for terminals.

Working expenses can be sorted as underneath.

Costs of Vehicle
Fuel costs
Team costs
Upkeep costs
Stacking costs for Unloading

Other than above, expenses are there to do with possibilities like steering into the rocks and harm to vessels. These are not uncommon, under current working states of lacking draft, even in the NWs.

Frameworks viewpoints: A point by point study underlining the frameworks viewpoint in examining the IWT method is displayed in a research paper. This examination draws on illustrative precedents from the Goa situation and run of the mill cargo activities over numerous goals in NW-1 and features the standards of store network, the board and the conceivable utilization of system stream models and planning models for investigation. Additionally proposed is a model for recognizing the scope of reasonable activity from the perspective of the following:

(a) the aggressive admission given by different modes
(b) the measure of canal boat and along these lines the working expense
(c) the ideal throughput
(d) the complete expense to the client (and along these lines a value which can be charged).
Armada arranging:
Canal boat activities depend on economies of scale in development, as a fixed expenses of the vessel (canal boat) and group are very high. The exchange offs here are as per the following: Larger scows having more draft and require a bigger water profundity, however have lower working expenses. For clients, the lower cargo expenses are counterbalanced by higher stock organizing costs. The freight boat size is likewise constrained by the throughput thought, as huge scows may have working limitations and little flatboats may cause an excessive amount of blockage in taking care of the required traffic. This prompts a working scope of sizes and other cost that are caused and thus the costs offered to the clients.

Booking:
Two kinds of calendars are conceivable in transportation tasks. Fixed calendar developments (which accommodate more sureness for clients, makes vehicle organization simple and where operating expenses are progressively controlled) and variable timetables (which accommodate more responses and can decrease unremunerative runs). CIWTC works on two sorts of administrations. In National Waterway-1 and National Waterway-2, it is the main administrator that has a sufficiently huge armada to have the option to endeavour fixed calendar developments.

Outline of Operational feasibility:
From the examination of tasks in NWs and the Goa iron metal developments by canal boat, it turns out to be evident that scow financial aspects is a capital and scale concentrated action. The jump measure in the NWs part is by all accounts around 750 T, given a hopeful perspective on the draft that is accessible (when adequate draft isn't accessible, the vessel must be work beneath limit). In Goa, the favoured size is presently around 1KT and 2 KT freight boats are additionally worked. This is suitable, given the volumes of freight and furthermore the productive stacking and emptying rehearses, which take into consideration, the great canal boat use. In NW-1, one may need to consider littler freight ship sizes with increasingly profitable items. Here, since the adjusting prerequisites are probably going to be higher than what IWT can offer, a major market is dicey at first. Agri-trade is one probability and the other is venture related action growth.

Technical Viability

Mechanical and physical suitability

Water stream: The essential for water based transport is the accessibility of water stream. In the principle channel, which already diminished throughout the years as a result of expanded use emerging from residence, mechanical and agrarian needs. The degree of customary stream may likewise have diminished in view of the effect of dams on water ways streams.

water ways preparing, digging and route: The following prerequisite is that the stream is prepared and reliably gives an adequate profundity opposing to the vessel’s real draft. Since feasible for certain sorts of stream, the requirement to upkeepingthe rivers and digging the beds intermittently, to upkeep the needed profundity.

In India, IWAI, on a fundamental level, focuses on keeping up an all year, 2m draft on all the National waterways. This isn't observed to be the situation, practically speaking. One probability is that it is deliberately supported to give this draft on proper channels, by an evaluation of the business traffic potential on every conduit. The other alternative is for administrators to get ready for a practical draft of 1.5 m and check whether that is operationally reasonable. The prerequisites for route are channel markings, night navigational guides, including the conceivable organization of GPS and stream maps and diagrams for route. The National Inland Navigation Institute in Patna has been set up to direct this improvement by the utilization of fitting innovation.

Locks: The physical drop of the stream channel can't be excessively, or else bolts must be given to deal with the tallness differential.

Access of load: The freight must be available to the conduit at the two closures, to guarantee way to entryway development. Accessibility of vessels and related framework, India has a long history of stream based water transport. Among administrators, the legislature possessed CIWTC (Central Inland Water Transport Corporation) is the biggest proprietor of vessels and freight ships. Private administrators have a generous armada, yet have not been putting resources into new vessels in the most recent decade. Indeed, there has been rejecting vessels generally, and all administrators may require some assistance in resuscitating them and putting resources into new vessels.
Ecological effect

Water is essentially a rare asset in the nation. The utilization of water for encouraging transport might be at times hard to legitimize. Identified with this is the expanded illustration of water for drinking, water system development and other movement, which lessens the general progression of water in downstream locales. This makes transport activities troublesome. Dams give another dimension differential obstruction to smooth transport. Given every one of these imperatives, inland water transport isn't at all the programmed first decision for development of products, a position that it appreciated for a long time in the past. However, where it is physically conceivable and industrially feasible as a major aspect of a store network for a shipper, it is normally the most engaging ecologically. The fundamental explanation behind this is low fuel utilization and thusly low contamination from emissions, and capacity to convey in mass, in this way lessening, taking care of related contamination and blockage.

Government Policy : Institutions

IWAI is responsible for the upkeeping of draft on the NWs. IWAI required to start a revenue kind of dependent on a blend of utilization charges and express sponsorship should be set up. The nearby income model in Goa offers one method for doing this. Traffic potential should be expertly evaluated with an aggressive viewpoint in the accompanying measurements: Origin-Destination streams; Commodity-wise streams and qualities, and Revenue potential. National water ways 3 in Kerala is the littlest of the three national channel. It is made up to a great extent of seaside Inland waters of the Arabian Sea. A huge piece of this backwater, bordering the Kuttanad area of Kottayam and Alappuzha regions, has built up a way of life that includes various utilization of the waters. An arrangement of entryways from both the north (Thanneermukkom) and the south (Trikkunapuzha) controls the degree of salt water that is kept up in the Vembanad lake (of which an enormous channel is assigned as the national conduit) and the waters are utilized both for prawn development and angling just as for rice developing.

There is proof that water based transport was verifiably a significant, even overwhelming method of development previously. For some islands in the Vembanad lake, and islands, for example, Vypeen, off Cochin, water based developments were the main mode for quite a while, to transport everything from crisp water to nourishment to development materials and for exchange. Indeed, even now, crisp water supply to certain islands is finished by freight boat. Today, there is some development by water, yet with an enormous increment in street availability and scaffolds, the supremacy of water development is a relic of past times. In the Cochin zone, with the three section Goshree spans, the islands of Bolghatty, Vypeen and Vallarpadam are associated with the terrain by street, which has just bigly affected traveler ship administrations to those islands. In different zones, the quantity of traveler courses has declined from around 100 ten years back to around 30 now. Aside from suburbanite developments and nearby exchange through water based transport, there are two different parts of water based transport that should be talked about: cargo developments and the travel industry related exercises. The real tonnage of cargo development in Kerala is, to and from Cochin port to a couple of enterprises in the region. Certainty represents the huge piece of this traffic, with two manufacturing plants on two channels of the principle conduit, however which are additionally viewed as a major aspect of the National water ways 3, specifically the Champakakara trench and the Udyogamandal trench. Crude materials for these manure plants (sulfur, shake phosphate, phosphoric corrosive and heater oil) frames the real piece of freight boat developments on NW-3. The other periodic client is Binani for moving zinc. The present rates for these developments (Cochin port to Udyogamandal and Ambalamugal) are Rs 55/Ton, which are sufficiently only to take care of working expenses of the freight boats ). The development is conceivable in light of the fact that FACT has put resources into canal boat taking care of offices at the two closures, quite a while back. In prior days, smelling salts gas used to be transported by tanker freight boats, which is presently ended. Curiously, before, completed products from FACT were additionally transported by canal boat from the manufacturing plants to appropriation focuses in Kerala, particularly in Kottayam, Alappuzha, Ernakulam and Kollam areas. The freight boat stacking office is still there, and chute stacking is conceivable at Udyogamandal. These were conveyed by temporary workers in 30-40 T Nation vessels around 1993. This is seen as a suitable size of shipment even now (contrasted with 10 Ton trucks), yet these administrators are never again present. Conveying sand or changing over to houseboats is a possibility for these vessels. Champakara, Allepey, Chingavanam, Kottayam, Kayankulam, Chenganassery, Aluva and Kaladi are potential areas even today. Likewise, tanker canal boats were conveying oil based goods from Cochin port to Kollam, however for reasons of work the executives and furthermore issues of the conduit on the southern side, this development has ceased. The other significant water based business action is the travel industry, particularly houseboat travels and some measure of water sports. The houseboats are for the most part 5-10 limit cargo canal boats, presently changed over into vessels for conveying voyagers.

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Passenger movement
In India, the fundamental traveler developments by inland channel that are practical are ship tasks crosswise over streams (at various areas on all channel), on short stretches along waterways and the travel industry based traveler traffic (in Goa, Kerala, Sunderbans and Northern locales). Subtleties of such development are given in the factual synopses delivered by IWAI, the Ministry of Shipping, the Planning Commission working gathering on IWT and State level specialists like West Bengal, Kerala and so forth. A few factors that influence traveler development are talked about underneath.

Travel time versus the substitute land based course: While time via land courses is for the most part decreasing, with an ever increasing number of scaffolds being built, it is still some of the time very practical and direct to have ship based administrations in numerous parts. Quicker ships and dispatches are a smarter way to energize traffic on this hub.

Cost: For travelers, the run of the mill expenses of ship, when it is not that high, must be added to the expenses of the consequent method of transport which must be utilized to accomplish the start to finish necessity of transport.

Trade accommodation: The conduit development ought to have the option to move consistently to different modes, eg: Road and Rail. A couple of studies have demonstrated convincingly that inland channel can have a noteworthy task to carry out in the coordinated traveler transport arranging in an urban region. For instance, an investigation in the Cochin metro region recommends that IWT will be an alternative that is difficult to disregard later on development of the city and calls for coordinated ventures to build complementarity with different modes, quicker vessels, bound together valuing, ticketing and focused on sponsorships in the territory. Mumbai has tried different things with quicker methods of water transport, for example, air cushion vehicles (aside from proceeding with ship frameworks), however a supportable administration blend has not been found, starting at now. Inland channel give an advantageous capacity in related exercises.

Vehicle carriage (Roll-on & Roll-off mode): West Bengal, Kerala and Goa have critical number of ship administrations, however there is potential for considerably more, with quicker vessels, legitimate landing offices and exchange with different modes. The travel industry, including remaining and stimulating is a developing action with monetary potential. In Kerala, Alappuzha and to a little degree, Kozhikode are focuses of this action, particularly for houseboats. Vessels that give music and feasting are winding up progressively normal in places like Mumbai, Goa and Kochi. Long separation water ways travels, both according to plan and according to a gathering request are likewise accessible, however they hold an elite result.

Water sports: This is another area that has a few potential outcomes in the waterways in NW 3. Wilderness boating and trekking on frosted rugged stretches of water ways are precedents.

Canals in NW3
Movement of any cargo through Main west coast canal of 168 kms is very less compared to Champakara Canal and Udyogamandal Canal.

Even the distance varies from canal to canal and with the Main west coast canal, it can be said simply like the following.

Udyogamandal Canal shows us a fluctuating Cargo movement in the continuous year from from 2018. Even though comparatively it is better than the other canal performances, taking account of the recent activities, cargo movement is decreasing. Champakara Canal has a steady and constant movement of Cargo. It is a surprising fact that Champakara Canal takes care of 98 percent FACT cargo. FACT has Chemical cargo namely Rock phosphate, Sulfur, Phosphoric Acid, Liquid Ammonia. For the movement of cargo through the Canal, FACT uses their own barge in case of Ammonia, or they might hire barges / vessels as per their requirement.

ISRO have Liquid effluent Cargo to dispose which depends on National water ways canals for disposal. Effluent is an outflowing of water or gas to a natural body of water from a structure such as from a wastewater treatment plant sewer pipe or industrial outflow. Disposing such waste nearby human-living areas will create high level health issues which cannot be committed. But the real and sad fact is that NW3 Authority will take such effluent and disposes nearly 20kmss far from the shore area in the sea.
Industries in Kerala that require Kochi port to export their shipments can grow in a very good way if many are cooperating in the growth of NW3. The long life of business here depends on certain external as well as characteristics within. The Vallarpadam project at Kochi is one of the reason which intern create a long lasting scope for traders in Kerala state.

The main focus of ICTT is in attracting more movement of multinational cargo via India and which will decrease the cost of freight on trading internationally to and from India. There are two terminals, which support the containers by RO-RO (Roll On, Roll Off) and LO-LO (Lift On, Lift Off) no. of carrying boats, made for Kochi port trade movement. The tailback will cease at Ernakulam cooperation if City of Ernakulam is filled with trucks carrying heavy and 20 inch, 40 inch containers, when terminal at Vallarpadam becomes full fledged. Surmising, containers will get loaded and other one unloaded continuously, around 3000 trucks would pass through NHs via Kochi day by day.

Large number of industries on the river-bank of Udyogmandal, for eg.: the public sector FACT and TCC(Travancore Cochin Chemicals) are located. Since waterways being the economical, security guaranteed and environmentally-sound method compared to allother transportation modes and many open canals inside Kochi and cooperation of Ernakulam are dumping waste from houses, various shops and other markets as well. Various house constructions and business people have been invaded on such open canals, by shortening the width of NW-3 Bridge at Kaloor, for example, are low-level, being a danger for the safe passage of boats. This points towards planned and prearranged struggle by agencies such as the IWAI, the Kerala Shipping and Inland Navigation Cooperation. This is also shared with Irrigation department and Fisheries as well. The studies for the of National Waterway-3 extension from Kottapuram to Kazargod and also from Kollam to Kovalam. Connection to Vellaracross Muvattupuzha river optimally 30kms, other from Muhammain Cherthala taluk to the eastern side of Vembanaadu lake to Kumrkam and Naattakam also being considerable here. In Aalapuzha Dist., it passes via places like Nedumudi, Pulinkunnu, Chambakullam, Edathuva and also another places in Pathanamthitta. The NABARD had been approved the expansion of a canal across Mahe-Vatakaraportion of the river. Various studies pointed out that the Mahe to Vatakara project was being the most with the facility for needed and accomplishing the standard for being a part in NW-3 extension. Here, Valapatanam to Mahe area is the line to be brought into and a serious hindrance in inland water transportation in that area. But, studies also cure the 60 kms new stretch will complete the entire stretch as a whole.

**Hypothesis Analysis**

**Hypothesis 1**: To test whether opinion regarding the statements “Waterway transportation is most economical and beneficial compared with Road and Rail transportation” are above average level

H₀ : Opinion regarding statements on Waterway transportation is most economical and beneficial compared with Road and Rail transportation are equal to average level

H₁ : Opinion regarding statements on Waterway transportation is most economical and beneficial compared with Road and Rail transportation are not equal to average level

**Table No 1**: t test for Specified value (Average = 3) of Statements on Waterway transportation is most economical and beneficial

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic benefit compared</td>
<td>4.42</td>
<td>.785</td>
<td>12.794</td>
<td>0.001**</td>
</tr>
<tr>
<td>Economic benefit to trader</td>
<td>4.26</td>
<td>.723</td>
<td>12.322</td>
<td>0.001**</td>
</tr>
<tr>
<td>Invite more trader</td>
<td>4.14</td>
<td>.783</td>
<td>10.299</td>
<td>0.001**</td>
</tr>
</tbody>
</table>
### II. INTERPRETATION

Since $P$ value is less than 0.01, the null hypothesis is rejected at 1% level of significance with regard to all the Statements Waterway transportation is most economical and beneficial compared with Road and Rail transportation. Hence the opinion regard to all the Statements Waterway transportation is most economical and beneficial compared with Road and Rail transportation are not equal to average level. Based on mean score, opinion regard to all the Statements on Waterway transportation is most economical and beneficial compared with Road and Rail transportation is above average level.

**Hypothesis II** : To test whether significant difference between Gender with regard to Factors of awareness of respondents

$H_0$ : There is no significant difference between Male and Female with respect to Factors of awareness of respondents

$H_1$ : There is significant difference between Male and Female with respect to Factors of awareness of respondents

Table No 2 : $t$ test for significant difference between Male and Female with respect to Factors of awareness of respondents

<table>
<thead>
<tr>
<th>Factors of awareness</th>
<th>Gender</th>
<th>t Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Awareness about Inland Waterways</td>
<td>4.31</td>
<td>.780</td>
<td>4.50</td>
</tr>
<tr>
<td>Any river nearby</td>
<td>4.31</td>
<td>.759</td>
<td>4.44</td>
</tr>
<tr>
<td>Any lakes nearby</td>
<td>3.69</td>
<td>.896</td>
<td>3.33</td>
</tr>
<tr>
<td>Any canal Nearby</td>
<td>4.06</td>
<td>.840</td>
<td>4.39</td>
</tr>
</tbody>
</table>
There is no significance difference between male and female respondents with regard to Factors of awareness, since P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to Factors of awareness of respondents.

Hypothesis III: Test whether significant difference among Age group with regard to Factors of opportunities of Inland waterways

H₀ : There is no significant difference among Age Group with respect to Factors of opportunities of Inland waterways

H₁ : There is significant difference among Age Group with respect to Factors of opportunities of Inland waterways.

Table 4.3.3 The test of ANOVA for significant differences for Age Group w.r.t factors of opportunities by making use of Inland conduits.
III. FINDINGS & CONCLUSIONS

Findings:

- There are immense no. of opportunities for Inland waterways Transport in India. For the time being in India, Inland waterways Authority have 111 no. of waterways.

- Less than 20 no. of waterways are operational and Authority is giving importance only on 6 to 8 waterways. No waterways in India (out of 111) are inadequate or loss-making to the government.

- It is a fact that a push from the local people should be there to convince the government that, not only passenger movement, but also cargo movement will make much revenue to the government.

- Many studies including experts from foreign countries show that for a 100/- spending of cargo through the Roadways, it costs only 30/- to 40/- through waterways in India, while Rail movement costs 60/- for the same amount of cargo for the same distance.

- There is movement of cargo through National waterways 3, for FACT organization and able to found from the available data that, 99 percent of cargo movement is happening only for FACT.

- The District of Alappuzha in Kerala is rich with channel and it is able to carry passengers more in the place of Kuttanadu in Alapuzha, than cargo transport. It is not a new story of passenger movement in Alappuzha using boats but when it is connected with National waterways 3, Opportunities are out of sight.

- Employment opportunities in IWAI are there but they are expecting for technical section more with years of experience which is hard to find for youth and found to be, there is less opportunities for young people to come through.

IV. CONCLUSION

The Government is expecting half subsidy for bringing up National waterways. It is the goal of the government to extend the stretch b/w Kozhikode and Kasaragod and from Kovalam to Kollam, which should be pronounced as NW 3. This was to be the top priority while growing Inland conduit and the State government should verify finance issued by the Central govt. is fully utilised for the development of NW 3 itself.

The support of Central government considering many private people to come through other than FACT. Kerala is rich with channels and there are immense opportunities to reduce freight cost using them effectively. Kayals (Lakes) were started being a part of this especially Eravipuramkayal, Ashtamudikayal taking part more. Advancement of feeder trench associating KannettiKayal at Karunagapally to National water ways was finished from the revenue received from the thirteenth Finance Commission helped to advance more at Kannettikayal in the district of Kollam which is south end of the total NW3 Stretch. IWT have better eyes on NW-1, which is the

<table>
<thead>
<tr>
<th>Interested in Inland waterways</th>
<th>3.82 (0.853)</th>
<th>3.64 (0.924)</th>
<th>3.40 (0.548)</th>
<th>3.67 (0.888)</th>
<th>0.371</th>
<th>0.774</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-fledged use of river</td>
<td>4.09 (0.750)</td>
<td>4.45 (0.522)</td>
<td>4.40 (0.894)</td>
<td>4.42 (0.793)</td>
<td>0.882</td>
<td>0.458</td>
</tr>
</tbody>
</table>

Note: 1. The value within bracket refers to SD

There is no significance difference among age group in years of employees with regard to Factors of opportunities of Inland, since P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to Factors of opportunities of Inland.

Source: Primary Data
first and the longest water ways in India with rich cargo movement as well as Passenger movement, where NW-3 lacks from NW-1 other than government support and no. of Government owned vessels. Government owned vessels can carry Cargo and Passengers without depending on private vessels.

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