

Economic Integration by Inland Water Transport Network at Varanasi

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Abstracts:

The IWT Sector Investment are having multiplier effects of its investments linkages with return, it enhances virtuous cycle of all-round development and growth. The Water Transport Network development in Varanasi hinterland evolve city for centre of large commercial shipping and make transportation system more efficient in that region. The development of Inland Water Transport network is taken fast pace over decade in India, National Waterway-1 (Ganga-Bhagirathi-Hooghly) river system has are having huge economic potential, the availability of water transport facility connect coastal and rural hinterlands areas to offers trade and commerce development in the region. IWT sector creates opportunities of employment generation in region, riverine transport facility may integrates water resources with main stream of economic activity. Alternatively rise of IWT transport facility along Ganga economic corridor expected to realise potential of cargo transportation, passenger transportation and flourishes development of tourism sectors etc.

1. Introduction:

Varanasi region of the Uttar Pradesh is known internationally for its own cultural, heritage properties, and its traditional values, therefore the city has centred for economic integrations along river corridor, The National Waterway -1 passes through this region where Multimodal Terminal is constructed at Ramnagar at Varanasi, the city has many overlapping many economic benefits with floating waters of river Ganges. The Ganga Ghats are itself making large attractions of populations and making many cultural gatherings along river front zones. The Indian Government has taken huge economic investment steps for development of National Waterways-1 and also started developing strategic asset along NW-1 to develop cluster of economic zones along water transport facility.

River Ganga hinterlands touches many economic streams along its corridors, however at Varanasi region also, it integrates with connecting rural , sub-urban and urban city core part, therefore the development of water transport facility in region integrating numerous economic exchanges. The major significance of river Ganga at Varanasi is known for religious and tourism purposes, but depicting and portraying city development as centre of major hub of maritime development.

In rural development and the role of transportation mobility offers sustainable development, the successful operations of development of profitable IWT transport establishes frameworks of business for the future. IWT corridors passes through the rural areas where lack of availability of road and rail networks, therefore development of integrated transport facility atmosphere with IWT supports passenger and cargo movements along river corridor. Optimized operations of vessel in the river with lower draft options supports to carryout multiple economic developments at mouth of rivers.

2. Research Framework

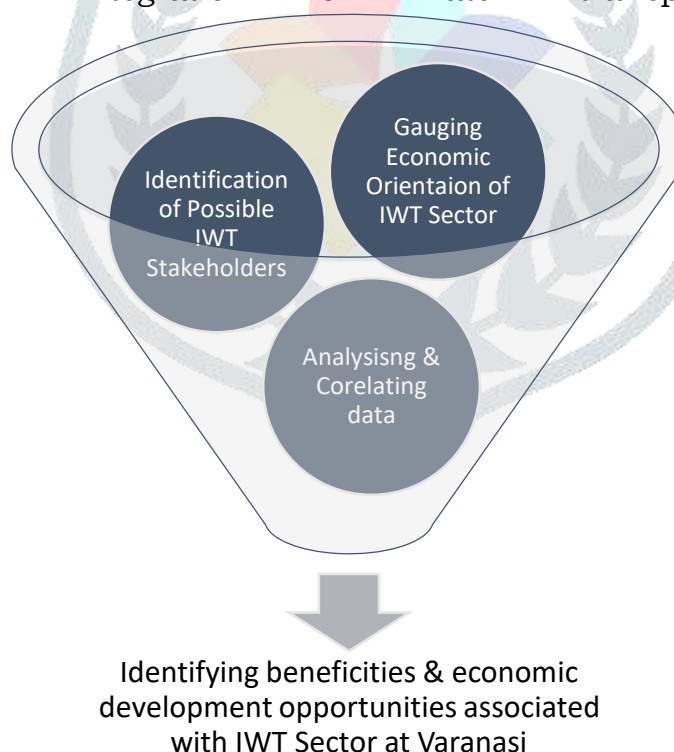
Inland Water Transport has connected vast numbers of stakeholders, therefore, research needed to include imperative participation of stakeholders for while developing research design and approaches to access the economic potential that reap out by development of Inland Water Transport facility along river Ganga at Varanasi region.

The extensive and purposefully participation of stakeholders in research facilitates to identify possibilities of economic development where finds out drivers attached with development of Inland Water transport facility.

The needs and demand of each attached stakeholders are accessed by adopting innovative practical solutions that can be easily replicated with IWT, The gathered information from each segment of stakeholders are unique set used to prepare prepositions for study for Inland Water Transport

The research findings are fundamentally depend upon responses received from each segment of participants, purposefully included in research. A scientific and systematic approach were adopted in study where stakeholders are identified at different locations, special activity performing clusters and homogeneity of the populations. The scope of each group of stakeholders are penetrated, identified and mapped.

The available exiting sources were also gauged based upon their present economic activity, possibilities of association with IWT sector and combination of return are possible with integration of water transport modes etc.



3. Stakeholders Identification & Gauging Economic Orientation

Gangetic plans at Varanasi regions have several groups that may possibility to be associated with Inland Water Transport, this cluster are associated with many stakeholders. The region is very popular for spiritual activity, tourism and possibilities of emerging IWT for trades and commerce purposes.

The eastern Uttar Pradesh Varanasi district are economic corridors for the region, therefore preposition of development of IWT based logistics in product value chain traces equally significance important in transport attributes.

At Varanasi river Ganga used highly by the local communities for multiple use, for economic integration point of view family visits at Ghats for recreation and spiritual purposes, ferry boats were played highly to transport the passenger, boatman and Nishad community are living along the bank of river Ganga, where their economic gains and livelihoods are highly depended upon the river transport, they operates boats and offers services to the passenger for crossing the river.

Fisherman community along the Ganga basin catches fish from the fresh water of the river, where integrated fish market and development of water transport facility helps fisherman in realization of better profit margin of their fish produced, hence IWT sector development directly supported in riverine fisheries development.

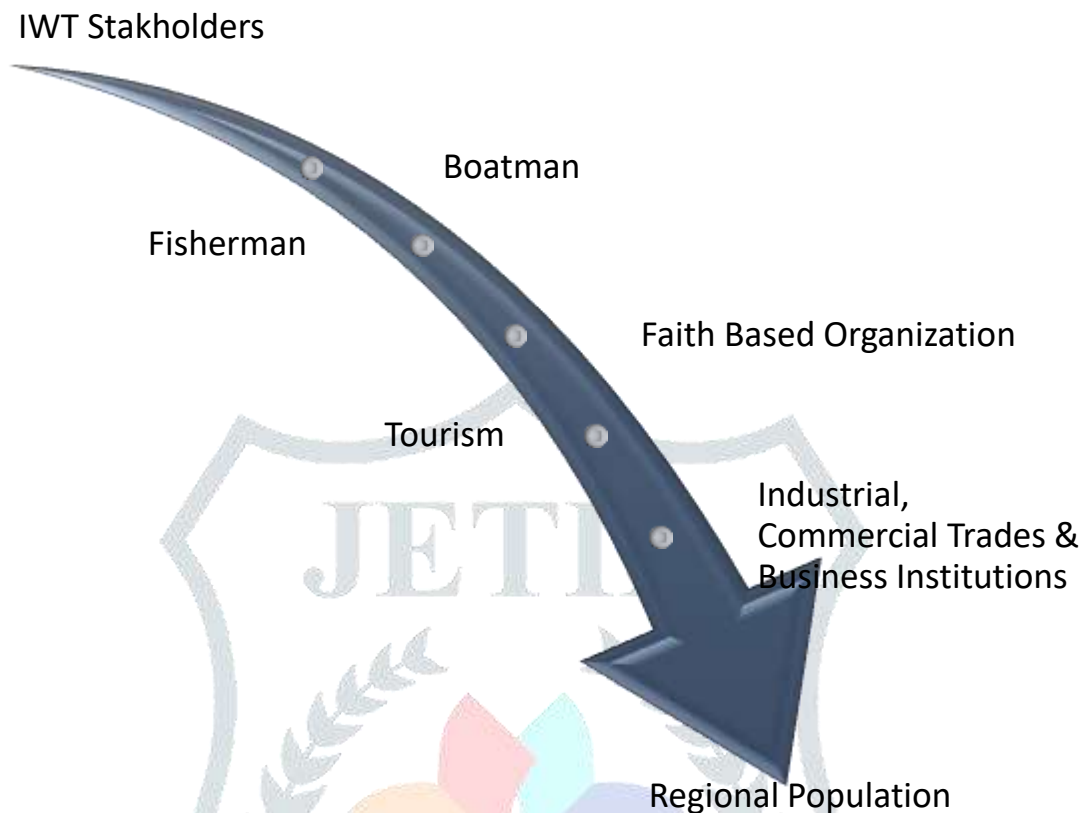
The broader categories of stakeholders are industries and business entities available in the region where they are looking for alternative opportunities for transportation of their cargo, as region exiting road and rail network are already congested, the understanding about degree of importance depend upon the interventions of project stakeholders with exiting socio-political economy of the region.

Religious community and societies of belief institutions are also being stakeholders utilising river Ganges and their interest are also clubbed to the rise of Inland Water Transport modes.

Varanasi has significance for development of logistics network and emerge as hub of economic zone where multiple manufacturing establishments are established, production of vegetable oils, plastic products, textile, carpet industry, value added manufacturing clusters are also be established there, the city is also located on focal plane of Dedicated Freight corridor of the project of Indian Railways and NH-2 Delhi Kolkata a part of Golden Quadrilateral road is also passing through the Varanasi region, hence for economic integration point of view, the Varanasi region are most important.

Development of Freight Village in Varanasi region are becoming game changer for the logistics handling, where large number of warehouse and storage shed facility developed and that were integrated with whole supply chain of the business unit that facilities overall development of the region.

Stakeholders Mapped for utilization of Inland Water Transport facility developed in the Varanasi region:



The primary survey were conducted at Varanasi with identified stakeholder of Inland Water Transport, where, most possible questions has been asked, the stakeholders responses recorded for understanding reasons of using Inland Water Transport for crossing the river.

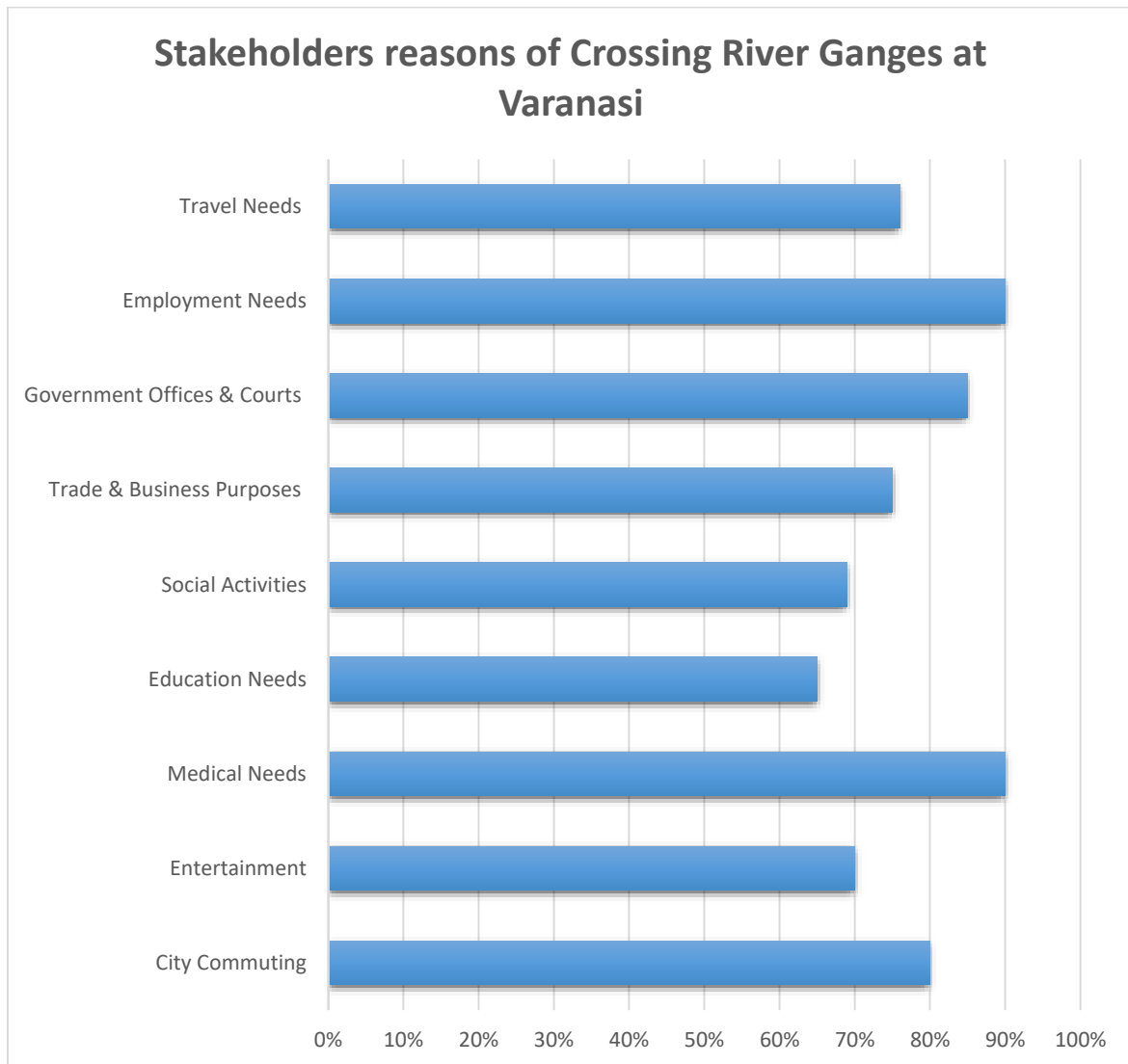
The Major identification was Inland Water Transport has played critical role in the economic integration of the available resources at two different banks at Varanasi region.

The populations living along the different sides of the bank has most possibilities of getting connected with each other, peoples were crossing the rivers by using ferry services or country bots for meeting their various economic needs.

Daily millions of populations are commuting to the city for earning their livelihoods, doing trades, commerce and business, getting education needs, getting services of medical facilities, works in the government offices, courts, market and worships etc.

Therefore it is clearly understood that public are using rivers for many purposes and inland Water Transport may provide opportunities of economic integrations.

Identification of stakeholders reasons for crossing river Ganges at Varanasi



The development of Water Transport facility at Varanasi region has possibly impacted the life of millions of regional stakeholders, the improved water craft services directly reflecting the positive reposes of the stakeholders.

The IWT stakeholders were positively skewed towards the benefits and opportunities associated with Inland Water Transport Facility, the integrated IWT transport with other modes of transport likely to generate employment opportunities, positively impact the life of boatman and fisherman community and also benefits common public, support regional transport development and facilitates development business opportunities.

4. Inland Water Transport Transacts exchange of resources:

The interventions of IWT sector at Varanasi, focussing to scale up the economic development in the region, the water transport facility not only supported the urban commuting solutions but it also facilities for the exchange of resources utilization in the region, the Varanasi city worldwide known for the pilgrimage and spiritual places, the region if called the centre of knowledge in many aspects. Availability of Kashi Hindu Vishwavidalaya (BHU) is significance of it.

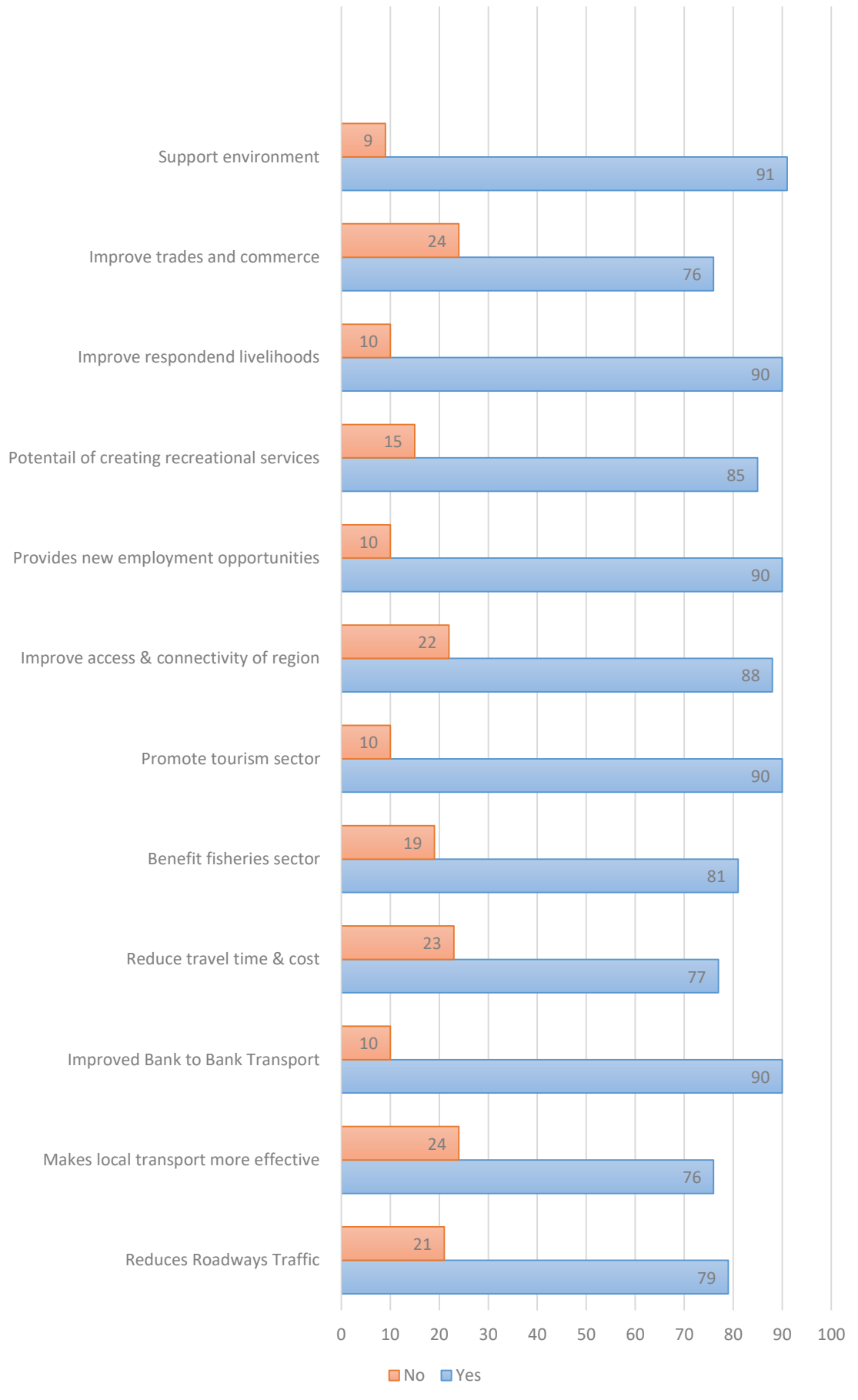
The recent development of water transport facility in the city, provided of logistics network integration, the development of integrated transport matrix of city with IWT transport helps Varanasi city in traffic decongestion.

The Varanasi city urban settlement are having very narrower roads, congested traffics and narrow lanes, the buildings are old and most of them are historic importance therefore the changes and settlements are not recommended by Aetiological Society of India

The Inland Water Transport develops regional connectivity within shorted distance, time and cost, the urban core of the city can be directly connected with Inland Water Transport network. The local populations of the regions directly connects with the market and reach their produce to the Varanasi Mandis via routes of Inland Water Transport. The regional logistics systems have been developed integration of rural locations with urban places of the city, the inland Water Transport helps city in managing its transport more effectively to support urban economics.

Investigation were carried out with defined stakeholders for getting the comparing benefits of usages of water transport at Varanasi region, the IWT transport development has improved city access, offers broader socioeconomic opportunities, by providing low cost transport solutions to all section of society, the transportation services are basic needs of the society, one needed to get the services of transport for performing their jobs, employment, livelihood, business activity, spiritual activity etc.

Stakeholders Perception Survey for IWT Sector



5. Conclusion:

Varanasi region having cluster dynamics, where potential partnerships of dynamics development possibilities exists, from small farmers to big industries all of the have integrated their economic resources and exchange their integration with available transport network. The development of inland water transport has expressed the cluster to express the opportunities of transportation integration.

Varansi city urban settlement are located along the river Ganges bank in western side, and most of economic resources are available within the city,

At Varanasi city Inland Water Transport facility improved the access of broader socioeconomic opportunities by providing low cost transport solutions to the all sections of the society, transportation is basic needs and it required daily to access various services, performing jobs, business activity, and also integrated with social mobility factors such as affordable means of transport facility. The Inland Water Transport facility supports development of human kind all around development Varanasi Region.

The Social cost benefits with Inland water Transport is very less as compared with any other surface modes of transport, the transport social cost such as air pollution cost, noise pollution cost, land coverage cost, construction, maintenance and operations cost and accident related cost etc. are comparatively very less in connection with Inland Water Transport modes.

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