

Research paper presentation

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Theme : BRTS Transportation Network Analysis of Hubli –
Dharwad Twin City

Introduction :

Transportation is a major contributing factor in the development of all conditions of first, second and tertiary activity. But as technology grown with new locations. we have seen a change in transportation as time goes on. BRTS is one of the most recet developments in Hubli – Dharwad . BRTS and more sophisticated work on the road, industrial advancement in marketing expansion, job creation of domestic and foreign business improvement of income and quality of life of the people, scrutiny and protection

The government of karnataka has the implementation of Bus Rapid transit system between twin cities of Hubli – Dharwad . The project includes development of transit infrastructure, improvement of pedestrian network, development of BRTS corridor and other related works. This project is expected to improve and promote environmentally sustainable transport infrastructure and services in the twin cities. The transform Hubli – Dharwad as the most livable and sustainable city in the region through creation of safe, affordable, and world bus rapid transit infrastructure and services with focus on commuter comport and convenience, integration of modes and information technology .

Objectives :

- 1) To plan for the sustainable development the city through the process of scientific land use and transport planning integration.
- 2) To make public transport affective convenient and preferred choice of the citizens.
- 3) To promote walking and cycling as preferred modes for short distances and improve the related infrastructure.
- 4) To build capacities within the city for professional planning and management of urban transport and urban planning.
- 5) To promote participation of citizens in planning process.

Development of HD – BRTS

The center of excellence in urban transport , CEPT University established 2009 is on initiative of the ministry of urban development (MoUD) Government of India and is supported by the Ahmedabad municipal corporation, CEPT – CoE has been envisaged as a resource centre for dealing with issues in urban transport planning and management. It also introduced the leaders program in urban transport planning and management a certificate course for in service urban transport professionals for in July 2012 in collaboration with the world Bank and the MoUD. The center also took a lead in organizing the first Asia BRTS conference in September 2012.

Hubli – Dharwad BRTS company, a government of Karnataka undertaking, has been registered as a company under the companies out on 7th May 2012. The company has been established by the Government of Karnataka for the specific purpose in implementation of BRTS project in Hubli – Dharwad twin city. The company has an authorized share capital of INR 20 cr out of which 70% is the share of government of Karnataka and the remaining 30% is shared by Hubli – Dharwad municipal corporation. NWKRTC and Hubli – Dharwad urban development Authority . The buses christened as “CHIGARI” the distinct project can be appertained as “metro in road” for facilitating the sustainable transport. The length of the Hubli – Dharwad BRTS corridor is 22.25 km from CBT Hubli to CBT Dharwad with the width of the cross sections ranging from 44 min to 35 min . The BRTS corridor includes segregated bus lanes, access – controlled bus station, physical and fare integration with feeder services off board ticketing through smart cards and bar coded paper tickets, intelligent transport system and high quality buses (AC) . The highest quality 32 BRT median stations have on the passenger load and interchange opportunity there 7 three bay bus stations and 24 two bay bus stations . The BRT buses are BS – 4 compliant buses meeting UBS – 2 specifications with a provision for wheel chair or baby pram. The buses are facilitated with on board its for real time passenger information, CCTV surveillance for safety and announcement system. The bus has seating capacity of 37+1 with reservation for ladies (12) senior citizenship (2) and divyang (2).

HD – BRTS commenced trial run on October 2018 the timing of BRTS bus operations has now been extended from 6.00 am to 12.00 midnight. At present the BRTS buses are running with over 450 round trips. More than 60000 passengers are already travelling in Chigari buses per day of the BRTS has crossed 7 lakh. It is estimated that more than 2 lakh people will use the corridor daily. This will require high frequency of the buses. It is estimated the ridership will increase to 4 lakh people by 2021 and around 6 lakh people by 2031. It has also won the award for “excellence in urban mass transit project” at national level from the ministry of housing and urban affairs.

Intelligent transport system (ITS)

To ensure that the BRTS is efficient HD – BRTS is implementing intelligent transportation systems that includes –

- 1) Automated vehicle location system
- 2) Passengers information system
- 3) Automated fare collection system
- 4) Transit management system
- 5) Incident management system
- 6) City mobility centre
- 7) Platform screen doors
- 8) Adaptive traffic control system

Impacts of HD – BRTS

- 1) All other BRTS in India are in their initial stage of implementation or operation. Hubli – Dharwad BRTS started with 8km, BRT corridor with daily ridership 1lakh passengers in 2018. The network has future expanded to 22.25km has a daily ridership of 1.76 lakh passengers. Over the time the fleet size was increased and HD – BRTS currently operate a fleet 100 buses with approximately 1240 trips per day.
- 2) The “CHIGARI” buses are operating in limited stop and all stop services over 6 routes. The travel time for express services is 35 min and for all stop service is 55 minute.
- 3) In a closed system BRTS lane is restricted only for BRT buses. Average speed of BRT buses in a closed system is invariably higher than an open system.
- 4) RTS is an initiative of Hubli – Dharwad BRTS company Ltd has Green planted over 27,510 trees in various government buildings, schools and park in the twin cities and which has cleared a total of 4000 trees on the Hubli – Dharwad central highways for road widening and development.
- 5) BRTS has also contributing to environmental benefits with the resultant mode shift private modes to BRT a reduction of Co2 emissions.
- 6) All transit investments are expected to bring about economic impacts through land use changes which is a result of improved accessibility.
- 7) The BRTS has served the accelerate commercial as well has residential development . The market size has also increased for all retail business and s has market segmentation with higher and commercial establishments like company owned service centre and showrooms moving into the areal along the corridor .

- 8) The reforms required were both at state government level as well as city level. The central financial assistance for the city buses was, therefore teid innovatively to the following reforms in the urban transport sector as conditions of ofsanction.

CONCLUSION :

Hubli city is a commercial centre and business hub of hub of the region. And Dharwad is an administrative seat of district and Educational hub of the region. Totally Hubli – Dharwad is the 2nd most largest urban agglomeration in Karnataka. The population of Hubli – Dharwad as per the 2011 census is 943587. Hubli – Dharwad BRTS transportation is a technologically correct area, in such a crowded area and is essential for cities with a growing population. 22.25km system at Hubli – Dharwad transports network 33 buses, 3 Depots, 1 workshop,2 terminals, ITS, NMT infrastructure. Totally project cost is 692 INR cr. The promotes fast, safe, comfortable, convenient affordable public transportation between the twin cities and aims to reduce congestion and air pollution in the region.