

Sustainable planning, growth and development in the Transport sector - with special reference to the Mumbai Monorail Project

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ABSTRACT

India has witnessed a surge of urbanisation since the past one decade. The face of India has tremendously changed. This revolution and transformation has not only accelerated the growth and development of urban areas, but has also opened new avenues for rural India. India has imbedded itself to modern and advanced technology, which has ultimately made India accept various transformations in the field of transport. Metro rail, mono rail, Bullet Trains are the new faces of the Indian Urban Transport system. This article we are going to unwind the growth and development of Urban transport with reference to monorail, Mumbai. We will try to find answers to- Is Mumbai going in the right direction? Did *Aamchi Mumbai* really get benefits after constructing Monorail? Is monorail project a part of careful sustainable development?

Key words: Sustainable planning, Growth & development

Introduction

Various Means of Mumbai Connectivity-
"Mumbai Ki Jaan" - Local Connectivity

The Mumbai Suburban Railway is the first preference for all the Mumbaikars. It is the first passenger carrier train built during the British East India Company, and is also the oldest railway system in Asia. The connectivity is widespread over 390 kilometres. The daily operation counts around 2,342 train services. This local connectivity accommodates around 7.5 million commuters on the day to day bases. The day to day commuters comprise around 40% of the Indian Railway System. Hence, it is rightly commented that the Mumbai Suburban Railway is one of the busiest commuter rail systems in the world.

Mumbai's Kaali Peeli- Taxi Connectivity

Another iconic means of transportation in Mumbai is the Taxi services which connect the entire metropolitan city in every corner of Mumbai city. The taxi services operate on kilometre systems. The commuter pays the rates depending on the kilometres travelled.

Mumbai's Laal Dabba- Bus Connectivity

Mumbai's another life line and support system in terms of transport is BEST Bus services. The Mumbai suburban division caters the need of daily commuters by offering bus services to the commuters. The daily routine operation of buses in Brihanmumbai is from Navi Mumbai, Mira Road/ Bhayander and Thane. The service caters to around

2.9 million passengers travelling daily at their workplaces.

These services are operated by around 63,700 trips, which run on 505 bus routes. The old diesel engines are now replaced with the help of 3800 eco-friendly buses. This service covers around 6.42 Lakh kilometres per day. The entire operation is managed through 27 Bus Depots, 51 Bus Stations and 112 Bus Terminals.

Mumbai's Metro Connectivity

Mumbai connectivity soars high after the initial project of Metro connectivity began its project construction work in the month of February 2008. It was a big hit with its first successful trial run in May 2013. After getting the green signal, the official operation on 8 June 2014. The metro connectivity aims to connect places within MMR and provide the most delightful travelling hassle experience. The Mumbai metro provides a seamless, comfortable, quick and most modern means of transport to all the metropolitan commuters

Mumbai' Monorail Connectivity

With a vision of connecting and touting India's Commercial capital, Mumbai Monorail project was initiated. This is the first monorail project of India, which was constructed in metropolitan city Mumbai.

Infact, the Mumbai Monorail project is the world's second longest monorail after the Osaka Monorail Main Line, Japan. The purpose behind this project was to cater to all those areas where roads cannot be expanded due to already constructed buildings and residential areas. This was the only project which aimed in eliminating the loss of property to all the localities. This project also saved the government treasury by reducing land acquisition costs for the government.

History of Monorail

Mumbai since inception has struggled with the issue of overcrowding and lack of proper space. The unplanned growth and development has left the place overcrowded. The monorail was a vision to bring connectivity in Mumbai suburban areas where the cities are quite congested. The term mono itself has features of running on a narrow single track system which can navigate sharp turns and twist in narrow and congested areas of Mumbai. This light weighted structure aimed to solve the issue of congestion in

areas running between Chembur and Wadala.

For effective connection between harbour line, central line and western line, the monorail is routed from Chembur to Sant Ghadge Maharaj Chowk at Mahalaxmi. This route joins the eastern suburban city to south Mumbai. The monorail commercially began functioning for Phase 1 to the general public in the year 2014.

Larsen and Toubro had signed a contract with the Malaysian company Scomi Engineering Bhd on 11 November 2008. This contract was initially signed to construct, operate, and maintain and repair the overall monorail project throughout Mumbai.

With a vision of constructing around 8 monorail routes in Mumbai by the end of 2029, this project was funded with Rs. 24.6. Billion through a contract with MMRDA. The initial project began with connectivity between Wadala, Mahul via the route of Chembur and Jacob circle. The project took wing during the year 2014.

Before completion of the said target, there were clashes and conflicts between MMRDA and LTSE (the Malaysian company). These clashes and disputes finally resulted in ending the contract. The contract wore off in mid of 2018

After which, the MMRDA still was struggling to solve the problem of city congestion and traffic pilling.

The overall budget of constructing monorail was estimated around 2.0 billion in the year 2010 for a route of 135 kilometres of mono line. This was planned to be built in two phases in between 2011, which would end in the year 2031.

Objectives of the study

An attempt is made to investigate and understand the sustainability of this monorail project, in terms of planning, growth and development. This research article aims to investigate the root cause of monorail failure.

Research Methodology and data collection

This research article is based on descriptive research methodology. The source of data is secondary, collected from official sources and websites of MMRDA and Monorail projects.

Result and discussion

Sustainable planning, Growth and Development. Was it exactly a sustainable plan ?

This monorail project has devastated and evacu-

ated thousands of trees and dislocated hundreds of public buildings, but still turned out to be a big failure. What exactly went wrong with these monorail projects?

Against the original deadline of 2010: In the search for an answer, what exactly went wrong with the monorail plan. The very first thought that triggers is the delay with the promised deadline. The line starting from Chembur and Wadala was the planned 1st phase of the line, which was completed in the month of February 2014, giving a delay of 4 years. This failure led to the aborting another plan of building an approx. 190 monorail stretching overall Mumbai sub urban locality.

Coach on fire flames: Another incident, which contributes to the big bang failure is continuous obstacles and breakdown in the operations. On 9th of November, 2017, the coaches caught a massive fire, due to negligence and technical failure. The entire operations had to shut down due to this incident.

A route to nowhere. failure lessons for all the urban planners -The urban planners failed with their plan. With no proper investigation, with no proper consultation, with no public demand, the planner received a green signal to go ahead. This project was a result of poor planning. In fact, the public criticised and commented on the urban developers for wrong judgement, lack of planning, wrong estimation, poor feasibility and pure waste of public funds.

Poor inter connectivity with other modes of transport: Every monorail station failed to have a proper inter connectivity to other destinations. There is no proper auto stand, bus stand or taxi stand, which would aid the commuters to reach their final destination. Adding to this situation, some monorail stations are far away from the residential areas. No interconnectivity issue gave rise to increase in travelling time as well as travelling cost.

Monorail routes through some of the most vacant areas of Mumbai on the eastern side : The 1st phase of planning covered some areas with no commercial buildings, no residential areas, moreover land covered with marshy and sand pits. The initial plan was to start routes which have higher human density in terms of population, but this did not happen as per plan, because it was difficult to evacuate people in this crowded area.

Hampered operations- Non availability of spare parts: Another string that detached and added up to the misery was lack of availability of spare parts and

other components. As the record, 3 out of 10 coaches were fully operational. The other 7 were stuck due to insufficient spare parts. Due to the financial crunch, MMRDA was unable to pay timely dues to suppliers and vendors. Moreover, a handful of companies have contracted to supply spare parts and other components. The delay in supplying spare parts was because the vendors started the manufacturing process only after getting orders for the same, they did not keep parts ready, it was just made to order.

Poor frequency: A wait of 40 minutes Mumbai is always known for its fast moving life, and if in this fast moving life commuters are made to wait for a long run, no one will opt for a monorail as a means of transportation. During peak hours, the frequency of the monorail waiting period is 22 minutes. But, this frequency dropped down to around 40 minutes, due to technical glitches and breakdowns.

Cost overrun: The monorail project exceeded the said budget. The overall cost overrun was around Rs. 2.36 billion (Around \$30 million). This led to a financial crunch.

Time delay Apart from cost overrun, monorail also showed an overall delay of about 5 years, instead of project completion in 3 years.

Discussion, conclusion and recommendations

The entire monorail project turned out to be a complete loss to all the stakeholders and Mumbaikars. It is not a financial loss, the monorail project has led to environmental damage, which is irreparable. This was definitely not a sustainable plan, framed by the planning committee. Monorail routes would have to be re-planned and re-designed, according to public transport connectivity.

With the failure story of India's first monorail project, we now doubt any other extension and expansion project. With growth and development opportunities in Mumbai, the city has turned upside down. Things are already done, we cannot undo it, but this case will now become a lesson to be learned for our coming future. Mumbai definitely needs to grow, but not like this one. Proper planning would have become our saviour.

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