

Hyderabad Metro Rail An Important PPP Project

It is said that Hyderabad Metro Rail is not a simple transportation project but an urban rejuvenation effort to convert an Indian city into a people-friendly global green city. Could you please mention the USPs of Hyderabad Metro including the feeder services?

Hyderabad Metro Rail is not a simple transportation project but is being used as an urban redesign opportunity to convert an Indian city into a people-friendly green city. While engineers building Metros normally concentrate on structural stability and other engineering aspects, Hyderabad Metro's focus is on people,

ease and convenience for commuters and aesthetics. Metro Facilities are being dovetailed to take care of the special needs of women, children, old people, and differently abled persons. Safety of women commuters and kids' play area in the Metro station surroundings are some such features. Eco-friendly stations with natural ventilation, skywalks, ramps, escalators, elevators and a host of commuter-friendly facilities are at the heart of this project. First mile/last mile connectivity with feeder buses, electric vehicles, non-motorised transport, and pedestrian facilities will ensure seamless travel facility for the

“Hyderabad Metro Rail is not a simple transportation project but is being used as an urban redesign opportunity to convert an Indian city into a people-friendly green city. Several advanced technologies and practices are being adopted in the construction of this project. Though there are some delays due to initial agitations against the project, now these hurdles have been overcome and the project is progressing on a fast track. It will be ready for commercial operation in a few months from now. It is extremely tough to implement a metro project in PPP mode and one needs guts, courage of conviction, tremendous patience and hard work to lead a PPP project to its fruition,” says **N.V.S Reddy**, MD, Hyderabad Metro Rail Limited in an interview with **Maria R.**





Two trains on viaduct

commuters. Metro stations are being connected to main rail stations, local MMTS train stations, bus depots and bus stops seamlessly. Surroundings of the Metro stations are being developed aesthetically with greenery, street furniture, etc. 20% of the Metro station space is kept for retail shops and together with the malls attached to Metro stations at some select locations, practically everything that is required for day-to-day living will be available at the Metro stations. Recreation facilities are also being provided at some Metro stations which will make them hubs of activities.

What are the innovative and the latest technologies being adopted by Hyderabad Metro to make its construction work safer, faster, and qualitatively better?

Several advanced technologies and practices are being adopted in the

construction of Hyderabad Metro. 85% of the Metro works are converted into precast mode. The segments of the Metro viaduct and stations are precast in India's largest urban precast yards (72 acre plot at Uppal and 62 acre plot at Qutubullapur) in a factory-like environment with absolute precision and smooth finishing. The elevated Metro station design is standardised as a 20 mtr X 134 mtr box with precast elements inspired by bird ("spine & wings" concept) and the whole station sits on the central piers (pillars) as a cantilever structure without support of any pillars on the sides. This is a unique design, perhaps first of its kind in the world, which avoids 'tunnel look' of an elevated station and allows plenty of ventilation for the road below. Further, this precast mode of the station has eliminated the need for temporary closure/blocking of the

road for erecting support staging during construction. This has also speeded up the work of station construction. The safety measures adopted in Hyderabad Metro construction including special staging, anchoring of support structures, two-layer protection with safety nets to prevent fall of any material on to the road users etc., have attracted worldwide attention and Hyderabad Metro has been bagging the prestigious 'ROSPA (Royal Society for Prevention of Accidents) Gold' award for the last 3 years.

It is learnt that there will be a delay in implementation of the 72-km elevated metro rail, after cost-overflow. What is the current status of the project and when will Phase I of the project be put for trial testing and its subsequent commercial operation?

Beautification of station surroundings



Hyderabad Metro spanning over 72 km in three of the densest corridors of Hyderabad city with relatively narrow roads is the world's largest Metro in PPP mode. It is a fact that there are some delays due to initial agitations against the project and the hurdles for the Right of Way created by some vested interests by invoking religious sentiments, imaginary heritage concerns, etc. However, with a lot of patience and tact, these hurdles have been overcome and the project is progressing on a fast track now. So far, out of 72 km, 58 km of foundations, 56 km of pillars and 46 km of viaduct

spans have been completed. Both the major depots are completed and 54 train sets have been received. Two stretches comprising 20 km are ready for operation and currently test run of trains is going on in these stretches. They will be ready for commercial operation in a few months from now.

What are the major challenges encountered by Hyderabad Metro Rail Corporation? How have the challenges put pressure on the project and its completion schedule? What are the measures adopted to overcome the problems?

“ It is the baby steps, like implementation of Hyderabad Metro in PPP mode which ultimately result in a leap forward in human history. ”

I would say only 35% of my challenges are engineering ones, whereas the remaining 65% are non-engineering ones. In the beginning of the project, my team and I were facing every day agitations and demonstrations orchestrated by some vested interests. Innumerable court cases were filed, but we won 190 out of about 200 writ petitions filed so far against the project in the High Court. With careful refining of the alignment and on the spot decisions and engineering solutions, we have avoided most of the religious and other sensitive structures and all the heritage structures. With enormous patience and painstaking negotiations, we have tackled about 20 religious structures so far in Hyderabad, which is a communally sensitive city, to the satisfaction of the heads of different religions/denominations/sects. I have personally addressed about 200 live



Commuter amenities inside Metro Rail station



Balanagar - Obligatory span

TV question & answer sessions, clearing doubts of the people about the project in its initial stages and adopted a very effective communication strategy to counter false propaganda against the project by the vested interests. A CD containing folk songs penned by me in Telugu explaining the features and comforts of the Metro system has become highly popular among Hyderabadis and people were humming these tunes during celebration of festivals in the city.

Being Managing Director of the world's largest PPP Metro project, how do you see the future of the PPP model in Metro space in the country?

It is extremely difficult to carry out mega urban infrastructure projects in PPP mode. It is really very difficult to carry out a Metro project in PPP mode. The mindset in the country is still influenced by socialist dogma and the private sector is generally equated with profiteering. Some NGO groups whip up sentiments whenever and wherever possible and encourage/indulge in litigation through PILs and writ petitions. One needs guts, courage of conviction, tremendous

“ Even my guru Dr.E.Sreedharan, for whom I have a lot of respect, initially had doubts about the feasibility of implementation of a Metro project in PPP mode, but later appreciated our station design, depot layout and aesthetic features of our structures.”

patience, and hard work to lead a PPP project to its fruition. However, there is scope for carrying out Metro projects in big cities either as full-fledged PPP or partial PPP.

Experts feel that in the Indian context, the PPP route might not be advisable for metro rail projects, given the inherent difficulties. What is your take on this?

I am one of the very few who have actually experienced the pros and cons of implementing a Metro project in PPP mode. While it is extremely tough to implement a Metro project in PPP mode and it requires a dedicated officer with multiple skill sets, fixed tenure and the backing of the Government to lead a PPP project, I have also seen certain inherent

advantages of implementing a Metro in PPP mode. The advantages of private sector flexibility, innovation, marketing capabilities, etc., are evident in Hyderabad Metro. Our depot and station design is superior to that of any other advanced Metros I have seen across the globe. Even my guru Dr.E.Sreedharan, for whom I have a lot of respect, initially had doubts about the feasibility of implementation of a Metro project in PPP mode, but later appreciated our station design, depot layout and aesthetic features of our structures. While it is easy to borrow JICA or other foreign bank loans with government guarantees and build Metros, India needs PPPs and other innovative financial mechanisms to build robust infrastructure as there are limits to public exchequer spending and there are competing demands on it as well.

With rich experience gained so far in the execution of this project, is Hyderabad Metro gearing up to render consultancy services to upcoming Metro projects in the country?

We are currently concentrating on the execution of our project and mine is an extremely lean organisation. As of now, I am not looking at rendering consultancy service.

Do you want to share some other important information with our readers?

It is easy to follow the 'rut', but a path breaker needs guts, courage of conviction, perseverance, and commitment to a cause. As Swami Vivekananda said, "all great undertakings are achieved through mighty obstacles". It is the baby steps like implementation of Hyderabad Metro in PPP mode which ultimately result in a leap forward in human history. ●