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Exclusive Interview with Shri Manas Sarkar, MD, Kolkata Metro

Metro Rail News Conducted an email interview with Shri Manas Sarkar, MD, Kolkata Metro, on recent Developments of Kolkata Metro Projects. Here are the edited excerpts: -

Q.1. Many congratulations for being appointed as the new MD of first and oldest metro systems in India? How does it feel to bear the legacy? Do you feel a sense of greater responsibility and ownership? What are your immediate plans ahead?

Thanks for the compliments. Let me clarify that I am the Managing Director of Kolkata Metro Rail Corporation Limited. Here the perspective of Kolkata Metro system is required to be understood for better clarification. In Kolkata, several metro lines are being constructed at present. Unlike other cities in India, where Metro systems are being developed with joint venture effort of State Government and Union Government, all Metro Lines in Kolkata are being developed by Union Government only. Kolkata Metro Rail Corporation, a CPSE under Ministry of Railways, is only entrusted with construction of Kolkata East-West Metro Corridor. The other lines are being constructed by RVNL and Metro Railway itself. The operation & maintenance of all the lines including the existing North-South line which is the oldest metro system in India is entrusted with Metro Railways, Kolkata which is a zonal railway under Ministry of Railways. Hence I am not in-charge of the oldest Metro System in India ; at the best it can be said that I am associated with the entire system of Kolkata Metro which is indeed the oldest Metro system in India.

Q.2. Kolkata Metro is presently fifth-largest metro system of the country after Delhi, Hyderabad, Namma and Chennai Metro. Don't you think Kolkata Metro couldn't grow and develop the way it should have been being the oldest metro systems of the country? What according to you is the reason for the same and that too when Kolkata lacks a smart and present era transportation system.

As per early Master Plan through



Metropolitan Transportation Projects [Railways], 1971, there were 5 possible Metro Corridors identified in Kolkata. Survey was conducted in three of these Corridors. The 1st of the 3 corridors in North-South direction was first taken up for implementation in 1972 which was commissioned in Phases from 1984 and it is the oldest metro rail system in the country. Now other two corridors as identified in 1971 have already been taken up. Apart from that, another 4 new corridors are also under construction.

When all the corridors will be completed Kolkata will have 133 Km of Metro system. Apart from these lines, there are future lines which are also in different stages of planning. Thus the planning process for development of MRTS systems in Kolkata has a legacy of around 50 years now. The size of Delhi Metropolis along with Gurgaon is 2216 sq km and length of Metro Corridor in operation is around 350 Km while size of Mumbai Metropolis is 603 Sq km and length of Metro Corridor in operation and construction is around 190 Km. In comparison, Kolkata having 133 km Metro Lines [operational and under construction] with only 206 sqm of Metropolis is not a meagre number. However if you look at the progress history of major Metro systems in the world as well as in this country, requirement of new metro corridors is often perpetual as the systems always try to get saturated

in capacity with passage of time. Same is expected in Kolkata with possibility of development of new lines in future .

Q.3. Amongst all metropolitan and tier-1 cities, Kolkata has least no. of private vehicle ownership. So, the stress on public transport system is enormous which is estimated to increase significantly amidst rapidly urbanising nearby areas of the capital city. What is your say in this regard and are you ready for future challenges?

Vehicle ownership in Kolkata is indeed the lowest amongst all the Tier-1 cities which is not a very discouraging statistics for a transportation professional as Kolkata also has the lowest length of city streets amongst all Metro Cities in India. The approximate ratio of private owned vehicles versus road Kilometers in Delhi in 2019 was 134 while it is 450 in Kolkata which clearly indicates that Kolkata streets are already overpopulated with private vehicles and the growth of sustainable transport solution should be through modern, people-centric mass rapid transit systems. As per the study conducted by Wilber Smith & Associates in 2008, the existing public transport share without the present Metro systems [only one Metro at that time] was 54 % of total transportation demand which was the highest in India at that time. Therefore the challenge before the city



planners is to nourish this public-transport oriented transit feature of the city and to cater the expectation and demand of the people by providing fast, reliable, safe and modern mass transportation mode. Metro Rail has a long history in Kolkata and associated as an integral part of city life which should be further boosted and encouraged with augmentation of new lines.

Q.4. The Kolkata Suburban Railway is the largest suburban rail system of the country with an annual ridership of more than 02 billion people. It's a very robust system developed since British era. Do you think it is the suburban railway that a need of other modern transport systems like RRTS, BRTS, MetroNeo, MetroLite etc. hasn't been felt to be developed in Kolkata? Do you think it is a righteous approach? What according to you can be a better transport plan for Kolkata?

The sub-urban railway system links the urban conglomeration of 1851 Sq-km around city of Kolkata known as Kolkata Metropolitan Area [KMA] with the City proper. The population of KMA is around 16.8 million and Kolkata being the center for majority of economic, social, educational and medical hub, there is huge transportation demand to the city. The majority of this city bound transportation demand is met by the sub-urban transportation system with two major sub-urban terminals at Howrah & Sealdah which handle around 2 million passenger daily. Sub-urban railway being the economic and easy mode of transport, the development pattern in this sub-urban localities have grown rail-centrally oriented accordingly. These sub-urban localities in and around the city have century old development history with mushroomed up settlements leaving spare area for development of other infrastructure modes. The sub-urban railway system and other modes of transport like RRTS, BRTS etc should not necessarily be competitive to each other but reciprocal and all the modes of transport should be integrated and well-orchestrated to provide the necessary service to the people.

Q.5. Kolkata unarguably has the most varied and complex set of transport systems offering its citizens ferries, trams, buses, trains, metro, taxis, auto-rickshaws and cycle-rickshaws.



So, do you agree that the present transportation system in Kolkata is capable of serving a larger population of commuters at lower fiscal costs, lower levels of environmental destruction and infrastructure usage although being a metropolitan city?

Indeed Kolkata possesses the most varied public transportation modes amongst Indian cities. As per the International Association of Public Transport [UITP] Survey [Arther D'Liittle 2.0- 2013], the mobility index of Kolkata was the highest amongst Indian cities due its various modes of public transport. At present the road volume is only about 5.4% and it can't be expanded beyond 8% due to narrow right of way. In fact, Kolkata being a city developed over 300 years under heterogeneous development regime, adequate space for future transportation planning is not possible. Moreover huge population upsurge after independence due to refugee migration has also put pressure on city transportation system. The present public transport system of Kolkata is bus oriented which is insufficient to handle the ever increasing pressure. As per all the Development Studies done so far, it is said that non-road based rapid transit system with densification around the transport nodes is the most viable transport solution for the city. In core area of Kolkata, underground metro is the only perceivable rapid transit system possible. It will divert a lot of commuters from surface level to underground thereby it will decongest the roads. This system is

eco-friendly, safe, reliable at the same time economically suitable.

Q.6. What in your opinion a smart and future centric transportation system of a mega-city be like? What would be your ratings for present transport system in Kolkata judging it on parameters of transport system of a megacity?

Our world is fast urbanizing with more and more people moving to urban areas and it is a challenging task for modern city planners to provide a futuristic city life which is sustainable to the society. As transportation is a vital aspect of modern connected city life, the sustainable modes of transport should be safe, reliable, adequate, modern & accessible. For an old metropolis like Kolkata with lingering issues of over population, congestion as well as environmental pollution, ideal transportation solution is MRTS along with supplementary feeder bus service and adequate first and last mile connectivity. Modern paratransits like electric bikes & electric auto-rickshaws may play a vital role in first and last mile connectivity aspect.

I will never say Kolkata is adequate in transportation system; in fact very few cities in the world are adequate. But there is definitive effort from every stakeholders to upright the transportation system which is welcome.



Q.7. Kolkata metro is rapidly gaining popularity of being the slowest metro system in the country in terms of work speed and completion of projects. It's been more than 10 years that work on new lines in Kolkata Metro started but none of them has been completed. What in your opinion is the reason for the same and what steps are being taken to remove the hurdles if any observed?

The perspective of implementation of Metro Rail systems in Kolkata should not be judged by very simplistic black & white yardstick of completion time. The example of Kolkata East West Metro perfectly demonstrates the complexity and diversity of problems associated here. The project was started in year 2009 with an initial target of 5 & 1/2 years. There were issues of land acquisition both for private land as well as Govt land right from beginning. In 2012, at the middle of project execution, there was a proposal for realignment in some part which completely upset the execution in some part of the project for several years. After several years of suspension of work in this section, the realignment of route was sanctioned in year 2015 to recommence the works. In addition, in 2012 the stake holding of project execution was shifted from Joint venture of State Govt and Union Govt to only Union Govt. There were other issues of obtaining permission from ASI and Defence Authorities which also eroded valuable project time. Hardly any Metro Project in India had to undergo such multi-dimensional hurdles. In spite of all these impediments, 6.97 Km of this corridor out of total 16.55 Km has already been commissioned and another 2.33 Km is expected to be commissioned in next few months,

Q.8. What is the status of India's first underwater metro being developed by Kolkata metro over Hooghly? What is the progress so far? Are you meeting the deadline of March,22?

The tunnel below river Hooghly was completed in 2017 and presently the track linking has also been completed. The follow on activities of tunnel ventilation and electro-mechanical works are in progress. The revenue service in this section is expected in end of year 2022.

Q.9. What had been the reason for the Bowbazar mishap during the underground tunnelling of Sealdah-Esplanade metro of east-west corridor? Two buildings - 13,14 Durgapithuri lane got completely demolished apart from damage to a number of other residential structures. Where do you feel metro authorities failed to analyse the whole situation? Don't you think the situation could have been averted had there been a better feasibility and planning done?

At the outset this can be stated that one tunnel boring machine was affected by ingress of water added with fine soil particles which caused severe ground settlement and damage to some buildings at Bowbazar. The water ingress was stopped by creating multiple bulk heads inside the tunnel to create closed chamber in frontal part of the tunnel boring machine and by exerting counter pressure by filling up the frontal portion with water. Bowbazar tunnel incident has been referred to contractual dispute resolution process. Hence It is not possible to state anything in this regard at this stage.

Q.10. What are your preparation and plans for averting any further damage in the area. Is there any compensation offered by KMRC to those affected by the mishap?

The balance tunneling in this area has already been completed so the question of any further damage does not arise.

All the affected families are paid with one time compensation of Rs.5 Lakh as per decision of provincial government.

All the demolished buildings will be reconstructed and all structurally damaged buildings will be adequately repaired. Till such time, all the families are kept in furnished rental flats.

Q.11. 'KMRC has proved its efficacy in developing India's most advanced metro system single handed in terms of civil engineering'. Do you still agree with the statement after the bow bazar incident?

Tunnel water ingress issue, though rare and unwelcome, is not uncommon. It had earlier been witnessed in more developed Metro Systems in the world with issues

of damages and project delays. The responsiveness and re-fortification exerted by this organisation after the incident towards rehabilitation of the affected families as well as completion of the balance mechanised tunneling work in the project were definitely reassuring.

Q.12. Would you like to share anything about your professional career and experience as a metro person? What would be your message to young technocrats aspiring to get into metro industry?

I being a veteran professional in the field of Railways and Metro Industry, I have spent my career dealing with variety of challenges both in construction and maintenance. As this industry deals with safety of the passengers, engineering accuracies and respect to maintenance protocol are demand of the day. My experience says that a combination of basic professional knowledge and logical thinking is essential to be successful in this field.

For all aspiring Metro Professionals, I would say this is a new emerging area of challenge for the engineering professionals and definitely a sunshine sector. But the knowledge base is required to be updated regularly to keep pace with the global changes in this industry.

Q.13. What would be your message to our readers? Please share your views about Metro rail News.

It is heartening to see that focused magazines for Metro industry are coming up which not only shares knowledge base and information for the project but ushers a general interest in public for Metro Rail who are the ultimate stake holders for such projects. I hope Metro Rail News to come up with all the galore in future.