

Metro is not a road, we can't change it'

MMRC MD on legal issues, car shed at Aarey, and impact on environment

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On September 24, the Mumbai Metro Rail Corporation (MMRC) reached two milestones: the first of its tunnel boring machines (TBMs) achieved a breakthrough and the project was granted major relief when the National Green Tribunal (NGT) said it doesn't have the jurisdiction to declare Aarey a forest, thus clearing the path for the proposed car depot. *The Hindu* speaks to MMRC's managing director Ashwini Bhide about the project's current status, immediate timelines, pending legal issues, and concerns raised by environmentalists. Edited excerpts:

All 17 TBMs have been launched. How fast do you think the work will progress in the coming months?

■ We have completed over 10 km of tunnelling. While all TBMs have been lowered, not all are in main drive. We expect all T7 to be in main drive by November-end, after which tunnelling will progress faster. We expect the next TBM breakthrough in package seven in the same location as the first one in December-end or early January. Two more, which were lowered in Naya Nagar, are expected to achieve breakthrough towards end of January or early February.

How far has station development progressed?

■ Wherever we could get the entire station box in one go, we have progressed quite well. Station development has progressed the most at the airport, Azad Maidan, MIDC, Siddhivinyak and Vidhan Bhawan as they are green-field stations. All other stations are below roads, where work has to be done in phases while managing road traffic. The main temporary activity was piling but 80% of that is over. Except Kalbadevi, Girgaum and Grant Road, all other station boxes are almost available. Our focus at the moment is their completion.

When will the station boxes and tunnelling work be over?

■ If we have to commission by 2021, our work will be over and system work would be partly done by December 2020. According to our timeline, by the end of 2019, almost 70-80% excavation and 80% of tunnelling should be over. Station construction will run parallel, so by December 2019 around 50% of station will be done. Towards the third quarter of 2020 we expect all station work to be completed. System work will start parallelly. At present, micro-tunneling is being looked into — sta-

tion designs and details. There are several systems overlapping at stations and it needs to be done in a particular way.

There are several other guidelines that need to be looked at such as local bodies' fire safety norms, national building code and our operational requirements like the tunnel ventilation system, substations and ticket collection centres.

When is work at Kalbadevi expected to start?

■ We have already started acquiring land. Over 70% of it is in our possession and the remaining 30% is in the process of being acquired. Once we take land from owners, it is imperative that we shift tenants parallelly. Already five to six buildings have been vacated, and the remaining will be demolished, which is also in process. One building is completely demolished. At the current speed, by December-end, we should be in position to demolish all the buildings and get possession of the land. As and when the buildings are demolished they will be handed over to the contractor. By December-end, all tenants' temporary rehabilitation will be completed. For the time being, people are getting shifted as per their convenience. We are also working on rehabilitation plans, which will be submitted to the municipal corporation for approval. We also intend to award the tender for at least one rehabilitation building. We can't do all of them together, since we need space for construction. Of the three complexes of rehabilitation, we can execute one parallelly. We will soon be awarding the contract for it.

Have any tenants shifted?

■ Almost 450 have signed the agreements and around 60-70% of them have already relocated.

The NGT said it doesn't have the jurisdiction to declare Aarey a forest. The Bombay High Court granted



City upgrading: MMRC managing director Ashwini Bhide talks about the challenges the Mumbai Metro project has to overcome. ■ VIVEK BENDRE

permission to work at night in south Mumbai. What is the status of other litigation?

■ Most of the litigation is now over, but a couple of decisions are still awaited. In the Parsi matter, the hearing is complete and we are expecting the decision soon. But meanwhile, one of our TBMs has not been able to work for the last three months, which is a big loss. Nevertheless, we have to honour court procedure. We also still need permission from the Tree Authority to cut trees for the car depot. This is holding us up as out of roughly 25 hectares, which we will be putting to use, around 10 is available without trees and we have almost exhausted the scope of work on that portion. So unless we get permission for the remaining land, we won't be able to start work.

What has been the impact of these litigations? What is the expected delay?

■ It will take us time to actual-

ly see the impact. This has been recognised by the court as well that one day's delay costs us 44 crore. However, it's not that linear — 100 days delay equals 4400 crore. The cumulative impact will be calculated on a later date. We are going to be a delay. For instance, one TBM that has been idle for three months due to the Parsi matter has completed 2 km of tunnelling. Had the machine been working we would have completed 3.5 km by now. Also, certain activities in the project give us scope to make up. For instance, we can expedite excavation. If the contractor has originally planned five excavators, we can ask him to double the number if possible. But in tunnelling we can't cut any time. We can't add machines. And even when there is delay we have a Plan B ready. It's not that the work is completely stopped. At Girgaum-Kalbadevi, the delay was on account of land acquisition. However, meanwhile, we have almost finalised all our

Who will pay for the delays? Environmentalists won't be held accountable.

ASHWINI BHIDE
Managing Director, MMRC

designs and drawings, so that when we get the land, the contractor will be able to expedite it.

How much of an issue will the Parsi matter be in the future? Is there any scope for changing the alignment?

■ How can there be scope for realignment? Metro is not a road, you can't just change it. Today Parsis are asking, tomorrow somebody else will ask. The very reason to go underground is this. We are spending almost 7700-800 crore per kilometre because it is a congested area. If we had to build an elevated Metro we might have needed to demolish many structures, especially heritage buildings. There is a religious argument and we respect that. But the road in Girgaum-Kalbadevi is narrow.

We are going below churches and temples, but since we are positioned at the edge of the road, we are not under the sanctum sanctorum of the places of worship.

Do you think the model used in the Kalbadevi-Girgaum Rehabilitation scheme can be used for other infrastructure projects?

■ It is a bit premature for me to comment. But my own assessment is that it would be useful. Normally redevelopment projects are done using the PPP model or involving the developer. Government agencies have very rarely done such projects on their own. We didn't have any other option and hence we are going ahead with it. The government has also gone out of their way and tweaked certain norms. For instance, normally plots that are not adjacent to a cluster. But we are not considered a cluster. But our project demanded 21 buildings that were scattered, for two stations. We asked the govern-

ment to allow us to consider the scattered buildings as one cluster so that we can plan the station in such a way that two or three plots remain vacant. I think this model will work. But it needs to withstand the test of time.

Similar to the rehabilitation planned in Girgaum-Kalbadevi, there are PAPS in Aarey as well. Some of them claim to be indigenous communities living there. Is there any plan for an in situ rehabilitation for them?

■ There is no truth in that. This is a deliberately inflated issue. Aarey Colony is not a jungle so there is no question of indigenous community living there. In the 30-hectare land for the car depot the trees belong to the Dairy Development Department. In fact, there is not a single PAP. Only in the ramp area — where the tunnel comes out to enter the depot at grade — there is an old slum called Sariput Nagar. They are slum PAPS rehabilitated as per the Mumbai Urban Transport Project policy. We had carried out a basic socio-economic survey. Before December 2014 we published the final list, which had 306 PAPS and 84 belong to the Scheduled Tribes category. All 306 have been rehabilitated either at Chakala or Kanjurmath, depending on their choice. Of the 84, seven have not accepted the allotment.

The Tree Authority still has to give permission for the Aarey car depot. What is the status of tree replantation and transplantation as laid down by the Tree Authority?

■ There are roughly 2,700 trees on the car depot land. But till now we have not got permission to cut roughly 3,200 trees [along the rest of the corridor], of which 50-60% are to be transplanted. Transplantation survival rate is around 64%. We have planted trees in place of those that haven't survived. In Mumbai, such a huge transplanting exercise has never been under-

taken before so there is no benchmark. Additionally, whatever trees we have cut we have planted three in lieu. So while we have not cut trees for the depot, we have already put in place compensatory plantations. So far we have planted over 22,000 grown trees in the degraded lands on the boundary of the Sanjay Gandhi National Park. It has been done with the help of the forest Department, who will be maintaining the trees for seven years, which we will fund. We have also planted around 3,500 more trees and in total more than 25,000 trees.

Many trees have been cut along the roads. Are there plans to plant trees in situ, after the project?

■ Yes, because in this project it is possible. All open spaces we have taken will be restored and in a much better fashion. We have already engaged an agency that is now working on a plan for the same. This includes the requirement of the Tree Authority. This is by our own volition.

So overall you feel that the project has a positive impact on the environment?

■ Even if we were to assume that all 6,000 trees are to be cut, not taking into account the tree replantation or re-plantation, the positive impact of this project far outweighs the negative. While there is talk of electric vehicles, the replacement rate is not going to be very high. It will be decades before people switch over to greener personal transport. This Metro is not going to impact 2.2 lakh passengers daily, it entails removal of that many vehicles from the road. You can also quantify the reduction in fuel consumption, the reduction in air pollution, the reduction in noise. The independent auditor from the United Nations Framework Convention on Climate Change calculated that this Metro will reduce 2.2 lakh metric tonne pollutants per year. Environmental benefits are just one type. This project will provide the city with an accessible and inclusive mass transit system. Because this Metro has stations every kilometre, the quality of transport will improve. Since it is underground, open space management is much better.

With such large infrastructure projects is there a perception issue with regard to the environment?

■ I don't know about public perception, but there are a few environmentalists who try to mislead the conversation. Activists are right to raise red flags when the government bypasses the environmental assessment process. We have a long history of environmental activism, based on which the government has modified procedures. I think everyone needs to look at the larger picture and not isolate things. The project will happen anyway. But who is going to pay for the delays? Environmentalists won't be held accountable.



Under construction: By the end of 2019, nearly 80% of excavation and tunnelling work is scheduled to be completed. ■ FILE PHOTO