

CHAPTER 17

IMPLEMENTATION STRATEGY — INSTITUTIONAL ARRANGEMENTS AND LEGAL COVER

17.0 WAY FORWARD FOR IMPLEMENTING THE PROJECT:

On receipt of the Detailed Project Report, following action needs to be taken for implementing Bangalore Metro project:

- Approval of the Detailed Project Report by Karnataka State Government and the Central Government and both Governments committing to an investment decision.
- Signing of an MOU between Karnataka State Government and the Central Government for firming up arrangements for equity, interest free subordinate debt and other related items pertaining to this project. A draft for the MOU is already with the Governments.
- Setting up of a special purpose vehicle for implementing the project.
- Providing legal cover for construction as well as operation and maintenance stages of the project.
- The two Governments to agree the financing of the debt portion of the project and also to the time frame for completing the project.

17.1 INSTITUTIONAL ARRANGEMENTS

To enable the Bangalore Metro rail project to be implemented without any loss of time and cost over-run, effective institutional arrangements would need to be set up. Details of these arrangements are explained below:

17.1.1 Special Purpose Vehicle

Experience of implementing Delhi Metro project has shown that a Special Purpose Vehicle (SPV), vested with adequate powers, is an effective organisational arrangement to implement and subsequently operate and maintain a metro rail project. An SPV should, therefore, be set up for Bangalore Metro and registered under the Companies Act, 1956. This SPV should be on the same lines as Delhi Metro Rail Corporation Ltd. (DMRC) and may be named as 'Bangalore Metro Rail Corporation Ltd.' (BMRC). Since Equity of BMRC will be contributed in equal proportion by the State and the Central Governments, it will have equal number of Directors on its Board from these two Governments. While the Managing Director of BMRC should be the nominee of the State Government, its Chairman should be the Secretary, Ministry of Urban Development & Poverty Alleviation, being the nominee of the Central Government. In order to avoid delays usually associated

with bureaucratic process of decision making, the Board of Directors (BOD) of BMRC should be vested with full powers needed to implement the project. The BOD, in turn, should delegate adequate powers to the Managing Director to take all decisions in day to day matters. The Managing Director should be a technocrat of proven record and impeccable integrity. A railway background would be an added advantage. A metro background would be most desirable.

Another model which has been considered is a Concessionaire approach. Delhi Metro project had the advantage of getting the services of a core team of professionals with experience in the field of metro transport. DMRC could also draw on the services of officers from Indian Railways. Apart from Bangalore, a number of other cities such as Hyderabad, Mumbai, Ahmedabad, Jaipur, Pune, Cochin, Lucknow, etc. are now planning to develop metro rail systems. In such a situation, it may be difficult to avail the services of adequate experienced professionals which Delhi Metro was able to get. We have therefore, also examined the option of BMRC entrusting the implementation of Bangalore Metro project to a Concessionaire on 'Build-Own-Operate-Transfer' (BOOT) basis. This approach assumed that the concessionaire brings requisite funds and the efficiency of private sector management in the implementation as well as operation of the project. BMRC's role in this option is limited to that of a regulatory authority. Thus BMRC would monitor the implementation of the project and on its commissioning perform tasks such as laying down the passengers fares, targets for the minimum number of services to be run by the Concessionaire, frequency, punctuality and reliability of these services, etc. There can not be any compromise on this and penalties for not achieving these targets will be spelt out in advance. In this option BMRC will have to enter into an agreement with the Concessionaire, clearly listing out the obligations and rights of the Concessionaire and BMRC. Following terms are usually included in the agreement between the Client and the Concessionaire.

- Land required for the project and 40% of the project cost (which would be enough to cover the cost of civil works) would be made available by the Client to the Concessionaire. The balance project cost would be mobilised by the Concessionaire himself.
- Implementation of the project and its subsequent operation and maintenance would be the responsibility of the Concessionaire. The concession will be for a period of 30 years.
- The Client gives a guarantee for the minimum level of ridership. If this level of ridership does not materialize for any reason, the Concessionaire will be compensated for the shortfall.
- Operation and maintenance expenditure for the project is borne by the Concessionaire. Revenues generated will also go to the Concessionaire.
- Standards to which the assets of the project are required to be maintained and the quality of the assets at the time of transfer of these assets to the Client at the end of the concession period should be clearly spelt out.

- Normally a metro system will require addition of assets like rolling stock, etc. over a period of time due to increase in traffic. This is taken care of in the agreement and as to who will fund them — the Concessionaire or the Client - is explicitly spelt out.
- A machinery for quick resolution of disputes between the Concessionaire and the Client is provided for.
- Insurance liability of the Concessionaire is indicated.
- Replacement of assets for the project will be provided for through a Fund which the Concessionaire is to maintain with the Client and to which he makes regular contributions as per the accepted depreciation norms.
- The Concessionaire transfers all the assets to the Client at the end of the concession period at a nominal residual value.

The Concessionaire approach has not so far been tried in any rail based urban transport project in our country. Attempts made to try this approach for high speed trams in early nineties in Delhi and recently for ELRTS in Bangalore have not succeeded. It is therefore felt that conditions are still not conducive in our country to try the Concessionaire approach for metro rail Systems. It is therefore recommended that the implementation of Bangalore Metro should be done by BMRC on the lines DMRC is implementing Delhi Metro.

17.1.2 Implementing a metro project in a congested metropolis is indeed a challenge. In sheer size, magnitude and technical complexity there are no parallels to metro projects. Further, these projects are to be carried out in difficult urban environment without dislocating city life, at the same time preserving the environment. The projects involves integration of a number of complex technical systems – some of these technologies are totally new to the country – each one of which is a major project by itself. Interfacing various system contracts is a difficult and highly skilled exercise. Side by side, timely and adequate funds have to be assured for implementation and lands, without encumbrances, have to be taken possession in time. Clearances from the local authorities have to be taken permission to cut trees, diversion of utilities, management of road traffic, etc., all of which will call for an efficient and competent project implementing agency.

Metro projects cannot be executed the way Government agencies execute projects in this country. Each day's delay is likely to enhance the cost of the project by Rs.47 lakhs. Therefore, timely completion is very important to safeguard the financial viability. Competent and skilled technical personal to man such an organisation are difficult to mobilize. In fact such experienced persons are not readily available in the country. Being a rail based project, for most of the systems such as rolling stock, signaling, telecommunication, traction power, etc., persons with railway background would be necessary. It is therefore, impossible to have a single organisation set up which can be responsible for all aspects of metro implementation

namely investigation, planning, designs, drawing up of specifications, preparation of tender documents, fixing of contractors, supervising the contractor's works, ensuring interface fusion between different contractors, ensuring quality and safety during constructions, planning and supervising integration system trials and getting the project commissioned on time.

It is, therefore, suggested a two tier organisation with well defined responsibilities for getting this project executed. At the apex will be the Bangalore Metro Rail Corporation itself. It should be a lean but effective organisation with full mandate and total power – with accountability- free from political and bureaucratic control. The second level will be a project management team called “General Consultants” who will be engaged by the BMRC on contract basis and who will be fully responsible for planning, design and full project management. In fact they will be the “Engineer” for the BMRC, who is the “client “. General Consultants should be fixed on the basis of competitive bidding, the way General Consultants were fixed for the Delhi Metro Project. If any further detailed design consultants are needed, the same should be engaged by General Consultants as their sub-Consultants within their own contract responsibilities.

Learning from the Delhi Metro experience, we would recommend all major contracts are awarded on “construct basis” based on detailed designs and specifications finalised by G.C..In certain system contracts such as signalling, telecommunication, automatic fare collection, etc. it may be desired to go for “design and construct” contracts based on broad technical specifications and performance requirements drawn up by the G.C. International Consultants are very expensive and should be engaged only in area where Indian experts can not manage and they should invariably be part of the General Consultants’ team.

Since BMRC will not have the required expertise and experienced manpower to check and monitor the General Consultants, it may be necessary to engage proof Consultants from the very start who will do this job on behalf of BMRC. Delhi Metro Rail Corporation Can be considered for being appointed as Proof Consultant to BMRC.

Generally G.C. will cost 2 to 2.5% of the project and Proof Consultants 0.5%.

The BMRC Organisation (**figure 17.1**), as stated earlier, should be very lean but effective. It will consist of a non-executive Chairman, a Managing Director with full Executive Powers (in Schedule ‘A’) and three Functional Directors (in Schedule ‘B’) and the third as Director (Finance). All the three will be Functional Directors and will be full members of the Management Board. The Directors will be assisted by Heads of Departments in each of the major disciplines and they in turn will have deputy heads of Departments. The organisation should be basically officer-oriented with only Personal Assistants and Technical Assistants attached to senior officers by eliminating unproductive layers of staff such as Peons, Clerks, etc. we strongly recommend that the total organisational strength is limited to 45 to 50 eliminating too many tiers to enable faster decision making.

It is necessary for the BMRC officers to get exposed to the Metro technology and Metro culture through study tours some of the selected foreign Metros and Delhi/Calcutta Metros.

17.1.3 High Power Committee

During the implementation of the project several problems with regard to acquisition of land, diversion of utilities, shifting of structures falling on the project alignment, rehabilitation of project affected persons, etc. are likely to arise. For expeditious resolution of these problems, an institutional mechanism needs to be set up at the State Government level. Towards this end, it is recommended that a High Power Committee under the chairmanship of Chief Secretary, Karnataka should be set up. Other members of this Committee should be Secretaries of the concerned Departments of the State Government and Heads of civic bodies who will be connected in one way or the other with the implementation of the project. This Committee should meet once a month and sort out all problems brought before it by BMRC. For Delhi Metro also such a High Power Committee was set up and it proved very useful in smooth implementation of the Delhi Metro rail project.

17.1.4 Empowered Committee

At the Central Government level an Empowered Committee, under the chairmanship of Cabinet Secretary, is presently functioning for Delhi Metro project. Other members of this Committee are Secretaries of Planning Commission, Ministry of Home Affairs, Ministry of Urban Development, Ministry of Surface Transport, Ministry of Environment and Forests, Department of Expenditure, Chief Secretary of Delhi Government and a representative from the PMO. The Empowered Committee meets regularly and takes decisions on matters connected with inter-departmental coordination and overall planning, financing and implementation of the Delhi Metro project. It is suggested that the role of this Empowered Committee should be enlarged to include Bangalore Metro project also and the Chief Secretary, Karnataka should be inducted as a member of this Committee.

17.1.5 Group of Ministers

Union Cabinet had set up a Group of Ministers (GOM) to take decisions on behalf of the Cabinet on policy matters concerning Delhi Metro project. The Group of Ministers is chaired by the Home Minister. Other members of the GOM are Minister of Urban Development and Poverty Alleviation, Minister of Railways, Minister of Finance and Company Affairs and Deputy Chairman Planning Commission. Chief Minister, Delhi and Lt. Governor, Delhi, are permanent invitees to all meetings of the GOM. The GOM meets whenever any problem requiring decision on behalf of the Union Cabinet is to be taken. It is suggested that the role of this GOM should be enlarged to include Bangalore Metro. The Chief Minister, Karnataka should be inducted as a member and should attend the meetings of GOM whenever any issue concerning Bangalore Metro is to be deliberated upon.

17.2 LEGAL FRAMEWORK

Metro rail projects are undertaken in congested urban environment. Metro lines have, therefore, to pass through heavily built-up areas. As vacant land for laying these lines is seldom available, they have to be constructed either as elevated or underground. When elevated, the metro lines are generally located along the medians of the existing roads to obviate the need for acquiring land. Even in such cases, land is to be acquired for siting station buildings, traffic integration areas, etc. Whenever underground, metro lines may have to pass under privately-owned buildings, involving use of underground space below such buildings. After construction of a metro line is complete, it has to be certified as 'safe' by a statutory authority before it can be opened for public carriage of passengers. For operation and maintenance of a metro line which has been commissioned for traffic, several crucial issues having legal implications need to be taken care of. These include continued monitoring of safety of train operations, security of metro properties, maintaining law and order within metro premises, enquiries into accidents involving metro trains whenever they happen, deciding the extent of compensation payable for damages/injuries/casualties arising out of such accidents, laying down passenger fares and their subsequent revision etc. There has, therefore, to be a proper legal frame-work to take care of such problems encountered during construction as well as operation of metro rail lines. Hence the need for a comprehensive legislation on Metro Railways.

17.2.1 Existing legislations

The subject of 'Railways' as per the Seventh Schedule of the Constitution falls in the Central List. Metro Rail projects come under the category of Railways and are, therefore, today a central subject. Despite this position the Central Government has not so far enacted a comprehensive legislation to regulate construction, operation and maintenance of Metro Railways in various cities of the country.

Calcutta (now Kolkata) Metro Railway was the first metro system undertaken in our country. To facilitate construction of Calcutta Metro Railway, a legislation under the title 'Metro Railways (Construction of Works) Act, 1978 was enacted. This Act was initially applicable to Calcutta but there is a provision in this Act that, by a notification in the Official Gazette, the Central Government may also extend it to the metropolitan cities of Mumbai, Chennai and Delhi. In fact, in the year 2000, the Central Government did extend this Act to the city of Delhi. This Act, however, suffers from several deficiencies. Firstly, there is no provision in this Act to extend it to cities, having population of a million or more other than the four metro cities mentioned above. Secondly, this Act covers only the construction stage of Metro Railways and does not provide legal cover to their operation and maintenance stage. When the first section of Calcutta Metro had to be opened for public carriage of passengers, the Central Government had to hastily get an Ordinance titled 'Calcutta Metro (Operation and Maintenance) Temporary Provisions Ordinance, 1984' promulgated. This Ordinance was converted next year into Calcutta Metro Railway (Operation and Maintenance) Temporary Provisions Act, 1985. This latter Act also suffers from several deficiencies. As its very title indicates it is applicable

to Calcutta Metro only, there is no provision in it to enable the Central Government to extend it to other cities of the country. Besides, it contains only bare minimum provisions which were essential to enable commissioning of Calcutta Metro Railway for public carriage of passengers. The Central Government's intention probably was that after sufficient experience in operating and maintaining Calcutta Metro has been gained, many more provisions would be included in this Act to make it self-contained and the word 'Temporary Provisions' would be dropped therefrom. This has, however, not happened even after expiry of 18 years since the passing of this legislation by the Parliament.

Construction of Delhi Metro is being done under the Metro Railways (Construction of Works) Act, 1978, after the same was extended to the city of Delhi. The Central Government had, however, to enact another legislation titled 'Delhi Metro Railway (Operation and Maintenance) Act, 2002 before its first section from Shahdara to Tis Hazari could be opened for public carriage of passengers. This Act, though comprehensive in nature, is applicable to Delhi Metro only and cannot be extended to cover a metro railway in any other city of the country.

17.2.2 Legal Cover for Bangalore Metro

Construction of Bangalore Metro phase I is expected to commence in the financial year 2003-04. Out of its two corridors, part of the first corridor may be ready for commissioning in about three years while the remaining portion of this corridor and the second corridor may be ready for commissioning after a further period of two years. Thus there is immediate need to have a legislation to provide legal cover to the construction stage of Bangalore Metro. Enactment of any new legislation is a time-consuming exercise. Experience has shown that it takes a minimum of two to three years from conceptualisation stage for a new legislation to be enacted. To enable construction of Bangalore Metro to commence in the year 2003-04, it has, therefore, become necessary to amend the Metro Railways (Construction of Works) Act, 1978 to make it applicable to all million plus cities in the country. Thus not only Bangalore but other cities like Hyderabad, Ahmedabad, Lucknow, Jaipur, Surat, etc. which are planning for metro railways will also get covered. Metro Railways (Construction of Works) Act, 1978 is administered by the Ministry of Railways which will need to be pursued by the Ministry of Urban Development & Poverty Alleviation for getting this Act amended expeditiously as suggested above.

As for the legal cover to the operation and maintenance stage of Bangalore Metro, it is high time to go in for a comprehensive legislation which will cater to both construction as well as operation and maintenance stages of Metro Railways in all million plus cities. After that Act is enacted, the existing Acts, namely, Metro Railways (Construction of Works) Act, 1978 and Delhi Metro (Operation and Maintenance) Act, 2002 and the Calcutta Metro Railway (Operation and Maintenance) Temporary Provisions Act, 1985 can be repealed. The comprehensive legislation should, inter-alia, contain provisions for the following:

- Functions and powers of the organisation to be entrusted with the tasks of implementing a metro system and its subsequent operation and

maintenance. This organisation should be conferred adequate powers to enable it to expeditiously implement the metro system and later to operate and maintain it without any problem.

- Acquisition of land for construction of a metro railway, including acquisition of rights to use underground space below privately-owned buildings for laying a metro line.
- Safety organization for certifying safety of a metro line before it is opened for public carriage of passengers. This organization should also be entrusted with the role of enquiring into the causes of accidents involving metro trains and suggesting remedial measures for avoiding recurrence of such accidents.
- Statutory authority for deciding the compensation payable for losses, injuries, casualties, etc. arising out of accidents involving metro trains.
- Penalty for offences committed in metro trains or metro premises.
