



## Story of a Metro Man: Challenges and Innovative Solutions in Developing Urban Rail Transit Network (B)

### *Metro Man's conditions and implementation of the Project*

#### Studying points

Students are expected to experience the decision-making methods of the top leaders of a government agency and to learn through this case discussion, thereby further elaborating their sense of leadership for the future.

#### Basic information

- Region: South Asia
- Issue: Planning and Implementing Urban Transportation Projects
- Key words: Urban transportation, leadership, public relations
- Country: Lotusland
- Year: 200X

#### Characters

Characters	Description
Dr. Phoenix (Main character)	<ul style="list-style-type: none"><li>● Chief Engineer of the National Railway of Lotusland (NRL)</li><li>● Asked to be the first President of newly established Central City Metro Rail Corporation</li></ul>
Mr. Lark	Spokesperson for Central City Metro Rail Corporation

#### Abbreviations

CMRC	Central City Metro Rail Corporation
NCR	National Capital Region
NRL	National Railway of Lotusland
OSV	On-Site Visualization
USD	US dollars

Note: This case material, which is a product of the Joint Research Project of Case Writing by the Japan International Cooperation Agency (JICA) and the International University of Japan (IUJ), is subject to copyright protection. Mr. Susumu Ito, JICA Staff had prepared this case document. This case is developed solely as the basis for class discussion, not intended to serve as endorsement, source of primary data, or illustration of effectiveness or ineffectiveness management.  
Copyright © 2020 Japan International Cooperation Agency

### **Summary**

In early February 200X, Dr. Phoenix was about to tell the Chief Cabinet Secretary whether or not he would accept an offer to become the first President of Central City Metro Rail Corporation (CMRC) to be established in the following year. Central City, the capital of Lotusland, was heavily congested due to rapid urbanization. However, the city was not equipped with efficient urban mass transit system. With this background, Central City Metro Project was planned and CMRC was about to be established for the planning and implementation of the project.

### **Key questions in reading this case**

Students who will assume the position of the President Phoenix, are required to discuss the following:

1. How do you evaluate the conditions proposed by Dr. Phoenix when accepting the position of the first President of CMRC?
2. How the lessons learned from the failure of North City Metro project were utilized in planning and implementation of the Central City Metro Project?
3. Are measures taken by Dr. Phoenix and CMRC feasible to be implemented in your own country?
4. What are the possible measures other than taken by Dr. Phoenix and CMRC for the smooth planning and implementation of Central City Metro Project?

### **1. Conditions for the acceptance of the role of the first president of Central City Metro**

Based on his past struggles and experiences with railway projects in Lotusland, Dr. Phoenix presented the following conditions for taking office as the president of the Central City Metro.

- (1) Central City Metro Corporation (CMRC) would not be led solely by either the central government of Lotusland or the Central City Government. Rather, the corporation should be established as a joint venture with equity investment from these governments in two equal shares.
- (2) There was to be no intervention from politicians or bureaucrats related to project implementation. CMRC should be able to independently manage any issues arising

from project implementation.

(3) The President of Central City Metro should have full authority over staff.

At first, the Chief Cabinet Secretary was surprised by these extraordinary conditions. However, since there were no other better candidates, and due to the urgency of the project, there were no other choice but to accept them.

These conditions provided the basis for quick decision-making in project planning and implementation. Absence of intervention from either the central or local governments or politicians in project implementation contributed to this. In addition, the technical skills, knowledge and confidence among staff of CMRC, whom Dr. Phoenix selected personally, also contributed to this quick decision-making.

## **2. Lessons learnt from North City Metro**

After taking office, Dr. Phoenix first ordered the staff of CMRC to thoroughly investigate the causes of the North City Metro's failure and instructed executives to formulate countermeasures to avoid similar problems and mistakes.

The diversion of underground utilities of water, sewerage, electricity, and telecommunication is extremely important in the construction of underground sections of metro rail projects and requires significant time to coordinate with relevant utility companies. Moreover, the actual diversion work must be well synchronized with the construction work of the underground railway. In the case of North City, this diversion work was completely handled by the utility corporations, which failed to align the timing and pace of their work with the metro construction, causing significant delays to the

project. Therefore, in the Central City Metro project, Dr. Phoenix decided that coordination with related utility companies would be carried out from the initial stage of the project, so that the Central City Metro and utility companies would agree on the transfer of responsibilities for diversion works to Central City Metro, thereby avoiding delays. In the course of this diversion work, old and partially damaged utilities were also repaired or restored.

Traffic management, another challenge for large-scale urban infrastructure projects globally, was one of the bottlenecks in North City Metro project. When the Central City Metro project commenced, CMRC created a traffic diversion strategy to facilitate the construction work in heavily congested areas. CMRC introduced traffic management strategies, which delegated traffic marshals to these areas. The diversions of traffic due to construction suggested by CMRC were retained by the authorities even after the completion of the work. This made demographic changes in some areas, as real estate prices increased with Metro connectivity.

Another lesson learned from North City Metro is the importance of construction discipline. During North City Metro's construction, construction site management was not accorded as much importance by construction companies in Lotusland. In response to fatal accidents that occurred during construction in North City Metro, CMRC introduced several counter-measures such as mandatory safety equipment and site barricading. For instance, excavated soil was dumped at designated sites. Trucks that carried soil and other materials were always cleaned and the tires were washed to ensure that there was no dirt left on the roads. These safety measures were effective and these norms are now followed in all of Lotusland's construction sites.

### **3. Learning from the failure**

These initiatives evolved into Central City Metro's corporate mission, "The success of contractors is ours, and their failures are also ours." In Lotusland's public works, construction projects are usually left to contractors. However, in the case of Central City Metro, construction projects were closely monitored to ensure that each step of the project was completed to a high standard and by the due date, thereby nurturing the work culture of close coordination and cooperation with contractors.

In addition, being conscious of the failures of the North City Metro project developed a learning culture in the teams of Central City. In 2009, a pier fell and killed six people - the worst accident during the construction phase of the project. In response, the Central City Corporation introduced a signal called On-Site Visualization (OSV), which alerts contractors of dangerous ground shifts at the construction site. As a result, major accidents were avoided subsequently.

Dr. Phoenix also met his heads of departments every Monday and many decisions were made on the spot with minimum dependence on paperwork and procedural formalities. Deadlines and completion target dates were considered sacrosanct and a countdown clock was installed at all sites to remind the engineers about the days left for completing their projects. CMRC emerged as a model organization in Lotusland. Quick decision-making and immediate implementation became another part of the corporation's work culture. Central City Metro was able to complete the first two phases of its expansion (190 km) in record time, long before mandated target dates.

#### **4. Public relations strategy**

Public relations was another initiative that contributed to the success of the Central City Metro project. During the initial phase of construction, the importance of public relations was not recognized by the Lotusland railway industry. Dr. Phoenix was not fond of the media at the start of the project, partly due to unfavorable and negative press reports on the North City Metro project that he had been involved in.

In response to this situation, Mr. Lark, spokesperson for Central City Metro, decided to change the mindset of executives of CMRC, since he believed that in order to succeed in such a large-scale project, it was necessary to deal closely with the media. He first asked a newspaper company for an interview with Dr. Phoenix on a trial basis. Following the favorable interview, Dr. Phoenix and other executives of CMRC began to recognize that media would report favorably when provided with accurate and appropriate information.

Mr. Lark worked to forge good relations with the media, in part by providing both positive and problematic information without hiding facts at important times during construction, an unusual practice in Lotusland at that time. By doing so, Mr. Lark was gradually able to win the confidence of the media, which, as a result, covered each step in the Central City Metro's construction work via interviews and site visits.

Another public relation strategy CMRC initiated was a series of innovative communication strategies to bring about behavioral changes among commuters. CMRC had actively promoted not only outreach to the media but also to Central City citizens who would use the metro after its completion. The bitter memories of the North City Metro lingered in Lotusland. The construction of the metro in Central City required land

acquisition, resettlement and removal of existing structures that affected daily lives of people in Central City. To win the support and ensure cooperation of the society during construction work, Community Interaction Programs were organized at various sites. During these programs, commuters and others impacted by the project had the opportunity to share positive and negative opinions and grievances. CMRC tried to propose solutions to these wherever possible. This initiative helped CMRC maintain a good relationship with people within the areas where it has undertaken construction. CMRC provided Central City's citizens with a glimpse of how the completed project would change their lives and make them more comfortable.

As a result, citizens of Central City have begun to look forward to the project and eagerly awaited its completion. When phase 1 of the project was completed in 2002, street plays were also conducted along the metro to inform people about various new aspects of the Metro, including the use of escalators and automatic fare collection gates. Travelling etiquette was also covered in the program, including through social media messaging.

## **5. Epilogue**

The Central City Metro today is an engine of growth for the entire NCR. Now, people decide where they should live or work on the basis of Metro alignment and connectivity. The Central City Metro today operates on a network of 343 kilometers with 250 stations across the length and breadth of Lotusland's National Capital Region. Over three million people travel via the Central City Metro every day. The Central City Metro project, which was said to be impossible at the concept stage, opened ahead of its target date for completion, unlike the North City Metro, whose construction period was extended for nearly 10 years.

Dr. Phoenix has served as the President of CMRC for almost 15 years. This is very different from the head of the public corporation in Lotusland, where high-ranking bureaucrats usually turnover every two to three years. Nevertheless, the time for a change of the President is approaching. How will Dr. Phoenix's corporate philosophy, which has eliminated political and bureaucratic intervention and succeeded in completing the large-scale urban railway project that was said to be impossible in Lotusland, change in the future? And will the expanding Central City Metro continue to improve the lives of citizens in the future?

### **References**

- Global Delivery Initiative (2017) “The Delhi Metro: Effective Project Management in the Indian Public Sector.”
- JICA (2010) “Ex-Post Evaluation of Delhi Mass Rapid Transport System Project (I) – (VI).”
- JICA (2016) “Ex-Post Evaluation of Delhi Mass Rapid Transport System Project Phase 2 (I) - (V).”
- Narayanan, V.G. and Chaturvedi, S. (2012) “Delhi Metro Rail Corporation,” Harvard Business School.
- Onishi, Y. (2016) “Breaking Ground: A narrative on the making of Delhi Metro,” JICA.

In using any part of the transcript, the precise part of the text used should be specified and the appropriate acknowledgement of the source of information, the name of JICA who has the copyright of the transcript and the title of the transcript should be given as described below:

Text citation: (JICA 2020)

Reference: Japan International Cooperation Agency. 2020. “Story of a Metro Man: Challenges and Innovative Solutions in Developing Urban Rail Transit Network (B).”

JICA-IUJ Case material series, Tokyo.