STUDY ON ECONOMIC PARTNERSHIP PROJECTS
IN DEVELOPING COUNTRIES IN FY2012

STUDY ON THE DEVELOPMENT OF
LEBAK BULUS STATION AREA IN JAKARTA
THE REPUBLIC OF INDONESIA

FINAL REPORT

【SUMMARY】

February 2013

Prepared for:
The Ministry of Economy, Trade and Industry
Ernst & Young ShinNihon LLC
Japan External Trade Organization(JETRO)

Prepared by:
NIPPON KOEI CO., LTD.
(1) Background and necessity of the project

In Jakarta metropolitan area, a project of the construction of North - South line has been proceeding. It is the ODA loan MRT project that aims to improve the environment of housing and investment by enhancing the ability of public passenger transportation, improving the traffic jam, making efficient logistics and improving air pollution. North - South line connects Lebak Bulus southern starting station and Kampung Bandan northern starting station (23 km). The project is divided into two phases and bidding of the civil package of the first phase is now proceeding.

As Lebak Bulus station is the southern starting station and functions as a hub for buses, cars and motor bicycles which come from southern areas to go downtown area, the success of the project depends on whether the function as a hub of Lebak Bulus station can work well or not. In addition to that, the government of DKI Jakarta declared to promote not only the MRT project but also the Transit Oriented Development (TOD). Today, DKI Jakarta plans to develop Lebak Bulus station as a regional urban core station by making Urban Design Guideline (UDGL).

However, the depot which is designed in Jakarta MRT project needs large space in front of Lebak Bulus station preventing itself from being a good hub for traffic and center of community in southern area. There exists bus terminal operated by DKI Jakarta at the place of the depot. So, PT. MRT Jakarta (MRTJ), a public train operating company, has already started to make a plan of utilizing the space above the depot by relocating the existing bus terminal. So far, a concrete plan has not made yet.

Considering these backgrounds, this project aims to improve the passenger’s accessibility, increase the number of passengers of MRT, stabilize the operation of train operating company and create the regional urban core MRT station for southern areas.

(2) Basic Policy Concerning Decisions on Project Content

Considering the present conditions, the basic policies in the following table will be applied in facility planning.

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Basic policies for planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>Usage as hotel, office and condominium.</td>
</tr>
<tr>
<td></td>
<td>The hotel is 4-star with 250 units of which main target is businessmen. Also, for long-stays, a service condominium with 120 units.</td>
</tr>
<tr>
<td></td>
<td>As competition of office leasing especially along Jl.TB Simatupang is intense, the office gains competitiveness by differentiating with wide floor area and complex development.</td>
</tr>
<tr>
<td></td>
<td>The main target of Condominium I is upper class who purchases a property of Rp.15 to 25 million (JPYen130,000 to 220,000)/m². The 4-layer parking space will be constructed underground.</td>
</tr>
</tbody>
</table>
The unit shall be smaller in Condominium II than in I targeting middle to upper class who rents a property of Rp.10 to 15 million (JPYen90,000 to 130,000)/m². The parking space shall be in the parking building.

Commercial facility
- Considering users’ traffic lines, commercial facility does not stretch to multiple stories and is limited in the lower five stories in the complex building.
- Considering the competitive environment, tenants which can provide “a place for daily use and fashion” are mainly placed.

Station plaza
- The station plaza is constructed for the demand in 2044, because it is not appropriate to construct station plaza outside of this project site.
- Parking capacity is planned to be more than the required area (8,155 m²) in 2020, and after 2020 it will be expanded outside of the project site depending on the demand.
- Private cars are not allowed to enter the bus terminal in principle.
- No accommodation space for long-distance buses is placed as in the existing bus terminal, and only platforms are in the bus terminal.

Architectural concept
- The plan shall follow the architectural regulations established by UDGL, and the total floor space is determined based on result of marketing analysis.
- The columns are placed not to be obstacles for depot operation and maintenance.
- Plans ensure user’s traffic lines, residential environment of Condominium I and II and functionality and convenience of parking facility.

Source: METI Study Team

(3) Project Overview

1) Project cost

The project cost for Lebak Bulus station development is shown in the Table S-2. The cost includes costs for construction, design and supervision (5.5% of construction cost). The construction unit prices of Rp.9.6 million (JPYen82,000)/m² for office, Rp.8.0 million (JPYen69,000)/m² for condominium, Rp.6.4 million (JPYen55,000)/m² for parking space are applied (see details in Table 5-1 of main texts).

Table S-2 Project Overview and Cost Breakdown

<table>
<thead>
<tr>
<th>Public infrastructure</th>
<th>Scope</th>
<th>Usage</th>
<th>Estimated construction cost (JPYen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking</td>
<td>ground 15 stories coverage</td>
<td>Park &amp; Ride, Facility users</td>
<td>2.9 Billion</td>
</tr>
<tr>
<td>Location</td>
<td>Coverage (m²)</td>
<td>Distance/Transportation</td>
<td>Cost (Billion)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------</td>
<td>-------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Station plaza (Bus terminal)</td>
<td>10,400</td>
<td>distance bus, city bus, Mini bus, Shared-taxi, taxi, TransJakarta (Corridor 8)</td>
<td>1.0</td>
</tr>
<tr>
<td>Station plaza (Open space)</td>
<td>1,440</td>
<td>Public space (atrium)</td>
<td>0.2</td>
</tr>
<tr>
<td>Pedestrian deck</td>
<td>2,150</td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>Other (Exit Lamps, etc.)</td>
<td></td>
<td></td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Public Infrastructure Total**: 4.3 Billion

**Commercial Infrastructure**

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Stories</th>
<th>Coverage (m²)</th>
<th>Total Floor Area (m²)</th>
<th>Cost (Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex facility 1</td>
<td>23</td>
<td>1,590</td>
<td>34,428</td>
<td>3.0</td>
</tr>
<tr>
<td>Complex facility 2</td>
<td>24</td>
<td>2,470</td>
<td>56,040</td>
<td>4.9</td>
</tr>
<tr>
<td>Condominium building 1</td>
<td>19</td>
<td>1,510</td>
<td>29,100</td>
<td>2.7</td>
</tr>
<tr>
<td>Condominium building 2</td>
<td>18</td>
<td>2,400</td>
<td>43,780</td>
<td>3.3</td>
</tr>
</tbody>
</table>

**Commercial Infrastructure Total**: 14.0 Billion

**Facility Total (a)+(b)**: 18.3 Billion

(Only the first layer): 2.5 Billion

Source: METI Study Team

**Figure S-1 Layout Plan**

Source: METI Study Team
2) Result of preliminary financial and economic evaluation

FIRR calculation and sensitivity analysis on Earnings before Interests and Taxes (EBIT) base were carried out based on 34 year concession period (30 year operation with inflation rate of 5%). Build-Operate-Transfer (BOT) fee paid as lease rent from Project Company to Land Owner (State Own Company (Badan Usaha Milik Daerah : BUMD) is assumed.) is only for the private land portion and not paid for the public space. For base case scenario, the Project Company FIRR is 20%. This is including the non-revenue generating public space cost. Without public space cost, FIRR for Complex would be 24%, and 23% for residence.

3) Social environmental study

Anticipated social environmental issues should be mentioned are air pollution, noise, and vibration, and designated environmental impact assessment should be required. On the other hand, improvement effect by implementing the project including the MRT project is large. In case of zero option, low connectivity from bus terminal to Jakarta MRT North – South line results in low convenience for public transport users and a low modal shift rate (shift rate to mass transit). As the result, noise, vibration and air pollution induced by traffic congestion would not be reduced. Since the land has already been acquired for the MRT project, and there is no additional land
acquisition and resettlement.

(4) Implementation Schedule

The proposed project schedule considering the synchronized construction with the MRT main project (CP101) is shown in the following.

![Figure S-3 Implementation Schedule](image)

Note 1) This schedule should be revised by the contractor of CP101 based on their detailed design.

Source: METI Study Team

(5) Feasibility of Implementation

For base case scenario, the Operating Company FIRR ranged between 21% to 24%. Sensitivity is very high for Operating Company in terms of occupancy rate and tenant fee levels. On the contrary, sensitivity is low for Project Company because demand risk resides with operations. Also, the Project Company has a much deeper margin structure to compensate for the heavy balance sheet. From the calculation result, the project has the potential to earn more than 20% of profit rate (Earnings before Interests and Taxes: EBIT) from the third year. A preliminary calculation of Equity IRR came out to be 24%, which clearly meets the investment criteria of investors (commonly used in Indonesia as 20%). Therefore, based on this analysis, we can conclude this project to be quite financially viable and feasible.

(6) Superior Technology of Japanese Companies

1) Technical Advantages

Advantages of each Japanese Technologies related to the project are listed in the following.
• Technology for efficient operations
Since SPC including investors will operate for a certain period of time, technology to save operation cost is an important item to be considered. Specifically, IC card and the related facilities, photovoltaic, and BEMS (Building & Energy Management System) are expected to be introduced.

• Technology which conforms to construction constraints
The facilities will be constructed above depot with some construction constraints, so some sections may require the methods which are not regularly applied in Indonesia such as steel structure, steel reinforced concrete structure, Precast Pre-stressed Concrete(PcaPC) Method and Mechanical Parking Facilities.

2) Operational Advantages
For the success of Jakarta MRT project, companies capable of a constant improvement to attract people and increase property values are expected. Under such conditions, developers in Japan have long histories to develop railway station area, to construct a brand image and to revitalize station plaza and surroundings. Hence, they are competitive, and the necessity is understandable for DKI Jakarta and state public corporation (PT. Propertindo, MRTJ).

(7) Concrete Schedule for Realizing the Project and Risks Inhibiting its Realization
For the project to take shape under such conditions, the following issues should be solved during the preparation period starting from the beginning of 2013 with cooperation of public and private sectors.

• Issues to be solved with initiatives of public sectors
i) Decision on the plan: Referring to this METI Study, DKI Jakarta shall decide the plan on propriety of the first-floor deck above the depot.

ii) Budget allocation: Financial resource shall be decided for the first-floor deck. The financial resources considered at this point are the budget of DKI Jakarta (APBD) for the fiscal year of 2013 and 2014 and amendment or reallocation of the Japanese ODA Loan for the Jakarta MRT North – South line.

iii) Decision on implementation agencies of public sector comprised in SPC: Implementation agencies comprised of SPC shall be decided. The candidates for SPC are MRTJ and Propertindo at this point.

iv) Preparation to issue operation right (HPL): There was a discussion that HPL should be delegated to BUMD (Badan Usaha Milik Daerah) for the first-floor deck construction. If the delegation of HPL is necessary, the HPL should be established by the latter half of 2013.
v) Decision on procurement of a contractor for the first-floor deck construction: The first-floor deck construction has to start in the latter half of 2013 and is conducted by either procuring a contractor or adding the work item in the scope of Jakarta MRT North - South line project Phase-1.

vi) Basic design of the first-floor deck: Based on the conceptual plan of the study, basic design should be completed and prepared for procurement of contractors.

• Issues to be solved with cooperation of public and private sectors

vii) Elaboration of the project scheme: Based on the project scheme proposed in this METI Study, a business model shall be designed by SPC. The design includes to determine whether lease rent should be charged or not, how to set the price when the fee is charge, and implementation system in construction, operation and maintenance.

viii) Finalization of the selection policy for partner investor: Following the project scheme, the selection policy for private companies to invest greater part of SPC and to be partners of BUMD should be finalized. In this step, Japanese companies should appeal their interest continuously, emphasize the importance of experiences on station development in Japan, and aim partnering with BUMD as a member of SPC

ix) Funding Approach: The financing should be discussed involving JICA, and overseas investment system is recommended at least for public infrastructure.

(8) Maps Indicating the Project Sites

Refer to the following page.
Figure S-4 Project Location Map

Lebak Bulus

Source: METI Study Team