## **Philippines**

# Metro Cebu Development Project

| Report Date:  | Noveml | ber 2002 |
|---------------|--------|----------|
| Field Survey: | July   | 2001     |

## 1. Project Profile and Japan's ODA Loan



Location Map of the Project



Cebu South Bus Terminal

## 1.1. Background

Metro Cebu comprises the three (3) cities of Cebu, Mandaue and Lapulapu, and seven (7) municipalities. It occupies a total area of 80,000ha, which is approximately 15.7% of the total area of Cebu Island. As of 1988, Metro Cebu had a population of approximately 1.1 million (45% of the total population on Cebu Island) and was the second largest city in the Philippines. Situated in the geographical center of the nation, Metro Cebu had played an increasingly significant role in the industrial, commercial and financial development of the Visayas and Mindanao Regions.

In the late 1980s, the Metro Cebu area enjoyed rapid economic growth accompanied by the Nation's economic recovery. Metro Cebu had a high annual average population growth rate of 3.6%, with migration from outside Cebu Island accounting for some of that growth. With its high population growth, Metro Cebu also faced traffic congestion, water shortages and power shortages as a consequence of inadequate infrastructure in the area. The situation therefore demanded the accelerated development of Metro Cebu's road network system and increased investment in other infrastructure to support economic and social stability.

## 1.2. Project Objective

To construct and improve arterial roads, improve the traffic management system, and construct a bus terminal, in an effort to reduce traffic congestion and thereby promote economic activities in Metro Cebu.

## 1.3. Project Scope

- 1. Construction/improvement of Arterial Road
- 2. Improvement of Traffic Management System (procurement of traffic signals, provision of street signs and road marking)
- 3. Construction of Cebu South Bus Terminal(CSBT)

### 4. Consulting Services

Japan's ODA loan was to cover the total amount of foreign costs and local costs excluding land acquisition costs and taxes.

### **1.4. Borrower/Executing Agency**

The Government of the Republic of the Philippines/ Regional Development Council, Region VII

### 1.5. Outline of Loan Agreement

| Loan Amount                     | 2,063 mil. Yen                             |
|---------------------------------|--|
| Loan Disbursed Amount           | 2,027 mil. Yen                             |
| Exchange of Notes               | December 1988                              |
| Loan Agreement                  | May 1989                                   |
| Terms and Conditions            |  |
| Interest Rate                   | 2.7%                                       |
| Repayment Period (Grace Period) | 30 Years (10 Years)                        |
| Procurement                     | General Untied                             |
|                                 | (Partially Untied for Consulting Services) |
| Final Disbursement Date         | September 1995                             |

### 2. Results and Evaluation

### 2.1. Relevance

In the late 1980s, Metro Cebu was experiencing population growth of 3.6% per year. Development of urban infrastructure, however, did not keep pace with increasing demands, leading to traffic congestion. Road conditions were poor, and unpaved and narrow roads impeded vehicular traffic, especially during the rainy season. Furthermore, approach corridors to urban centers (such as Cebu North Road, Cebu South Road and M.J. Cuenco) were regularly clogged and congested.

To cope with the situation, this project focused on expanding the main road, constructing a by-pass and installing a proper traffic management system in order to reduce the traffic congestion in Metro Cebu. The project was adequate, relevant and timely. Construction of the Cebu South Bus Terminal, which provides a smooth transit station for buses and jeepneys, was also relevant. It would not only reduce traffic congestion, but would also improve traffic accessibility in the community.

The table below shows that the number of registered motor vehicle in Metro Cebu increased by 60% between 1993 and 1999 (refer to Table 1). This trend indicates that traffic volume increased significantly between 1993 and 1999. The table below also shows that approximately 82% of all motor vehicles in Cebu Province were registered in Metro Cebu.

To cope with the above situation, the new "Medium-Term Regional Development Plan 1999-2004," shows that improvement and rehabilitation of roads in the Central Visayas Region (Region VII<sup>1</sup>) in order to establish smooth and safe inter-provincial travel are still the main concerns of the transportation sector. In addition to this project (MCDP I), the follow-on project MCDP II was implemented and MCDP III is also being implemented to achieve further improvements in road traffic conditions. Accordingly, the objective of this project remains relevant and important to regional development at the present time.

<sup>&</sup>lt;sup>1</sup> Region VII consists of the provinces of Bohol, Cebu, Negros Oriental and Siquijor.

|            | City                | 1993    | 1994    | 1995    | 1996    | 1997    | 1998    | 1999    |
|------------|---------------------|---------|---------|---------|---------|---------|---------|---------|
|            | Cebu City           | 62,590  | 69,824  | 74,993  | 85,485  | 92,404  | 95,861  | 95,945  |
| Matra Cabu | Mandaue City        | 34,440  | 34,106  | 41,358  | 26,268  | 27,107  | 31,485  | 32,585  |
| Metro Cedu | Lapu-Lapu City      |         |         |         | 18,242  | 21,173  | 22,408  | 26,652  |
|            | Total Metro Cebu    | 97,030  | 103,930 | 116,351 | 129,995 | 140,684 | 149,754 | 155,182 |
|            | Total Cebu Province | 114,048 | 124,574 | 141,361 | 155,416 | 173,859 | 187,683 | 197,320 |

 Table 1: Motor Vehicle Registration in Metro Cebu (1993~1999)

Source: Land Transportation Office, Region VII

### 2.2. Efficiency

### 2.2.1. Project Scope

As for the traffic management component, new-design loop vehicle detectors<sup>2</sup> were required to install at 7 intersections as an extra task, as they were necessary to link 7 out of 15 target intersections with the Sydney Coordinated Adaptive Traffic System (SCATS<sup>3</sup>) procured by the Australian Grant Program. These intersections were located along P. del Rosario Street, which runs north-south through the center of Metro Cebu. The distance between these intersections was short, and linkup with SCATS was required in order to synchronize traffic signals at those intersections.

Besides above extra work, the project was completed as planned except for a minor quantitative deviation.

### 2.2.2. Implementation Schedule

The entire undertaking completed 16 months behind schedule due to delays in all three components. The start of construction/improvement of the arterial road was delayed for 11 months because of a right-of way (ROW) acquisition problem. The start of implementation for improvements in the traffic management system was also delayed 34 months, mainly as the result of coordination problems<sup>4</sup>. Construction of Cebu South Bus Terminal(CSBT) also fell 22 months behind schedule owing to the time required to clear the area of squatters.

Although the start of implementation for all three components was delayed, construction itself was completed within the designated schedule.

#### 2.2.3. Project Cost

Estimated project cost was 3,260 million Yen. Of this amount, 2,063 million yen was to be financed by Japan's ODA loan, and 2,027 million yen was actually financed. Japan's ODA loan covered the total amount of foreign costs and local costs excluding land acquisition costs and taxes. The actual total project cost was not clear because accurate land acquisition costs and taxes were not

<sup>&</sup>lt;sup>2</sup> Loop vehicle detectors detect traffic flow and automatically transmit data to the SCATS.

<sup>&</sup>lt;sup>3</sup> SCATS is a computer based traffic control system that operates in real time, adjusting signal timings throughout the system in response to variations in traffic demand.

<sup>&</sup>lt;sup>4</sup> Project preparations were based on the fact that the Metro Cebu Traffic Engineering and Management (MCTEAM), under the jurisdiction of the Department of Public Works and Highways (DPWH), was the executing agency. However, the DPWH was informed that the MCTEAM would be transferred to the Department of Transportation and Communication (DOTC) in April 1992. The issue of the executing authority was finally settled and approved by the JBIC in March 1993.

available.

### 2.2.4. Project Implementation Scheme

As described, there were three components of work in this project, and each component was implemented by a different organization. Under such situations, Metro Cebu Development Project Office (MCDPO), a Project Coordination Unit, was established under the Regional Development Council (RDC). The main functions of MCDPO were to coordinate the different organizations and to supervise all construction work.

MCDPO was composed of a chairman, the MCDPO Board<sup>5</sup> and an implementation unit. A project implementation structure and the functions of MCDPO are illustrated in Figure 1.



### Figure 1: Project Implementation Structure and Function of MCDPO

NEDA=National Economic and Development Authority, DOF=Department of Finance, CITOM=Cebu City Traffic Operations Management, MCTEAM= Metro Cebu Traffic Engineering and Management

Source: Made based on hearing from MCDPO

One of the most significant contributions of MCDPO was to execute all the administrative work for the various organizations during project implementation. It usually takes time for local-level organizations to prepare documents and get approval from the national-level organizations. It is also difficult for local-level organizations to coordinate projects with each other because each organization

<sup>&</sup>lt;sup>5</sup> The MCDPO Board consists of the director of regional office for each Ministry and the mayors of three cities and three municipalities within Metro Cebu.

protects its own interests. MCDPO avoided such time loss and executed all the construction works within the original schedule. MCDPO left the decision-making to the local-level organizations, which knew the situation of each locality. In this way, the project aimed to provide maximum benefits to the local community.

MCDPO adopted a scheme under which facilities constructed and/or installed under this project were to be turned over to the appropriate O&M agency (details will be discussed later), at which time the MCDPO would have no further responsibility.

### 2.3. Effectiveness

### 2.3.1. Quantitative Effectiveness (Reduction of Traffic Congestion)

Since adequate quantitative data, which can prove the project contributes to reduce the traffic congestion in Metro Cebu, were not available, it is hard to measure the project effect quantitatively. Instead, the interview survey was conducted to see how beneficiaries of the project evaluate the improvements made as part of each component. The results of the survey were described in 2.3.3.

### 2.3.2. Utilization of Cebu South Bus Terminal

Cebu South Bus Terminal (CSBT) consists of a terminal/parking area and a building. The terminal/parking area, there are 40 loading bays (terminals) for buses. In addition, the middle ground space, which can accommodate approximately 50 vehicles, is being utilized as a waiting area.

The building houses 95 shops, of which 90 are occupied. The shops contain various businesses; including restaurants and general merchandise stores. Outside the building, there are 5 food stalls and 5 small concession stands for fruit vendors. There are also public service rooms inside the building, such as PNP/CSUs<sup>6</sup> Quarter, public toilets and comfort rooms. Some of these shops are open 24 hours a day to provide services to bus users.

There are, on average, 15,000 passengers commuting daily between the city and provinces, and 335 trips to and from the terminal. Table 2 shows that the number of average daily trips increased by 63% from 1988 to the present, while the number of tenants at CBST increased by 179% from 1988 to the present.

| Table 2: Bus Operations at Cebu South Bus Terminal |        |        |        |  |  |  |
|--|--------|--------|--------|--|--|--|
| Before Project After Project Present               |        |        |        |  |  |  |
|  | (1988) | (1993) | (2001) |  |  |  |
| No. of Bus Departure per Day                       | 205    | 250    | 335    |  |  |  |
| No. of Tenants at Bus Terminal                     | 34     | 50     | 95     |  |  |  |

Source: CSBT Management and Data from JBIC

### 2.3.3. Evaluation by Beneficiaries

The interview survey<sup>7</sup> for this project was conducted in Metro Cebu, Cebu Province, in 2001. The

<sup>&</sup>lt;sup>6</sup> The PNP (Philippine National Police) are under the jurisdiction of the National Government while CSUs (Cebu Security Units) are under the jurisdiction of Cebu Province.

<sup>&</sup>lt;sup>7</sup> The survey covered 165 respondents categorized as follows: 55 for Construction/improvement of National Road, 55 for Improvement of Traffic Management, and 55 for Construction of South Bus Terminal. The interviewers selected, at

survey was designed to see how beneficiaries of the project evaluate the improvements made as part of each component. The results of the interview survey for each component follow.

#### Construction/Improvement of National Road

The interview survey for this component was conducted along the national roads constructed/improved under this project. The majority of respondents interviewed for this component were either drivers (jeepney, taxi and private vehicles) (56%), or residents (along or near the arterial road) (42%). They usually travel in the morning ( $6:00\sim10:00$ ) (36%) and in the afternoon ( $16:00\sim19:00$ ) (35%). The questions aimed to evaluate road conditions before and after the project.

Most of the respondents (52 out of 55 respondents) said that traffic congestion during non-peak hours was reduced, and 39 respondents said that traffic congestion during peak hours was reduced after the project. However, 16 respondents said there was no change or it became worse in traffic congestion during peak hours, indicating that there is still significant traffic congestion during peak hours on some major roads(Figure 2).

Forty-four (44) out of 55 respondents said that travel time to their destination was reduced (Figure 3), while 33 respondents said that travel costs had been reduced after the project. The improvement of road conditions seemed to promote smooth flow of traffic, reflected in the fact that 46 respondents felt that travel was much more comfortable than before.



Figure 2: Change in traffic flow during peak hours (N=55)





### Improvement of Traffic Management

The interview survey for this component was conducted at the 15 intersections where traffic signals were installed under this project. The respondents interviewed for this component were drivers (jeepney, taxi and private vehicles), representing 87%, and vehicle owners, representing 13%. They

random, respondents who knew the conditions of the project site concerned *before* and *after* the completion of the project in each component.

usually pass through the intersections in the morning  $(6:00 \sim 10:00)$  (29%) and in the afternoon  $(16:00 \sim 19:00)$  (31%). The questions aimed to evaluate changes in traffic management (intersection) conditions.

Most of the respondents (53 out of 55 respondents) said that traffic congestion during non-peak hours was reduced, and 32 respondents said that traffic congestion during peak hours was reduced after the project. But 23 said there was no change or it became worse than before in traffic congestion during peak hours(Figure 4). It is conceivable that the installation of a better traffic management system, together with an increase in the number of vehicles, caused a shift in traffic toward the urban center, thereby making traffic congestion an enduring problem during peak hours.

Forty-seven (47) out of 55 respondents said that travel time to their destinations and the number of traffic accidents were reduced (Figure 5,6), indicating that the majority of respondents felt that after the project they could travel more rapidly and more safely through the intersections. The improvement of the traffic management system also seemed to promote smooth flow of traffic, as seen in the result that 50 respondents felt that travel was much more comfortable than before.



Figure 4: Change in traffic flow during peak hours (N=55)

Figure 5: Change in travel time to destination (N=55)

|             | 0% | 20% | 40%         | 60% | 80% | 100% |
|-------------|----|-----|-------------|-----|-----|------|
| Much Better |    | 1   | 1<br>1<br>1 | 1   | 1   |      |
| Better      |    |     |             |     |     |      |
| No Change   | -  |     | 1           |     |     |      |
| Worse       |    | 1   | 1           | 1   | 1   |      |
| Don't Know  |    | 1   | 1           | 1   | 1   |      |

Figure 6: Reduction in traffic accidents? (N=55)

|             | 0% | 20% | 40% | 60%         | 80% | 100% |
|-------------|----|-----|-----|-------------|-----|------|
| Much Better |    |     | 1   | I<br>I<br>I | 1   |      |
| Better      |    |     |     |             | · · |      |
| No Change   |    | 1   | 1   | 1           | 1   |      |
| Worse       |    | 1   | 1   | 1           | 1   |      |
| Don't Know  |    | 1   | 1   | 1           | 1   |      |

#### Construction of Cebu South Bus Terminal

The interview survey for this component was conducted within the CSBT. The respondents interviewed in the CSBT were self-employed/business owners, representing 25%, employees (24%), students (20%), housewives (18%), farming (7%), and unemployed (6%). They usually use the CSBT for traveling in the morning (6:00~10:00) (39%) and in the afternoon (16:00~19:00) (48%). The questions aimed to evaluate changes in the bus terminal conditions before and after the project.

Forty-six (46) out of 55 respondents said that the passenger waiting facilities had improved; accordingly, 52 respondents felt the terminal was more comfortable than before (Figure 7). Before the project was implemented, a vacant lot was used for the bus terminal, and there were no public facilities such as parking spaces, toilets or waiting rooms. Therefore, it is conceivable that the construction of CSBT properly met the beneficiaries' needs and demands. Furthermore, 48 respondents said that security in the terminal was better than before. It can be said that reinforcing the security by setting up the Philippine National Police (PNP) /Security Quarter in the CSTB was effective.

Finally, the great majority (97%) of respondents said the accessibility to taxis/jeepneys was improved, indicating that the project also successfully contributed to the provision of a smooth transit station operation for buses and taxi/jeepneys alike.



Figure 7: Comfort of the terminal (N=55)

### **Overall Contribution of the Project in Each Component**

Beneficiaries (respondents) evaluated the overall contribution of the project in each component as follows:



**Figure 8: Overall Satisfaction with the Project in Each Component** 

Note: Sat=Satisfied or Very Satisfied, Neu=Neutral, Dis=Dissatisfied or Very Dissatisfied, NA=No Answer

Forty-nine (49) out of 55 respondents to the construction/improvement of national road survey, 50 of that for the improvement of traffic management and 49 of that for the construction of CSBT were either satisfied or very satisfied with each component of the project. From the results of the interview survey, it was recognized that the project effectively improved the beneficiaries' daily transportation.

However, it should be noted that traffic congestion is still a problem during peak hours, especially at the major roads and intersections. Currently, the implementation of the Cebu South Coastal Road Project (CSCRP) under the MCDP III is underway. The coastal road is intended to provide direct, uninterrupted access from south Cebu City to the international airport in Lapulapu City. It is expected to reduce traffic congestion at major roads and intersections greatly.

### 2.3.4. Recalculation of Internal Rate of Return

Since certain quantitative data, such as travel cost and travel time, required for the recalculation of Economic Internal Rate of Return (EIRR) were not available, the recalculation of EIRR was eliminated from consideration in this report.

Here, the Financial Internal Rate of Return (FIRR) of the Cebu South Bus Terminal was recalculated based upon the summary of Income and Expenditures from 1998 to 2000. The recalculation shows the FIRR of 7.9%<sup>8</sup>, which is much lower than the appraisal calculation of 18.4%. Since detailed information on the calculation of the FIRR at the time of appraisal was not available, it is hard to compare the FIRR calculated in this report with the original. The possible causes of the lower rate are an increase in project cost and insufficient income of the Cebu South Bus Terminal from 1993 to 1997. The actual cost of this component was much higher than that of the original estimate, which led to a considerable increase in investment cost.

Mitigating factors notwithstanding, the recalculated FIRR demonstrates that the quality of the investment is still high enough to profit from the output of this project.

### 2.4. Impact

#### 2.4.1. Impacts on Economic Growth

In an analysis of the goal of this project -- enhancing Metro Cebu's potential for further economic development -- it is difficult to link the accomplishments of this project and gains in Metro Cebu's economy, even though Gross Regional Domestic Product (GRDP) of Region VII increased steadily after the implementation of this project (an average growth rate of 4.83% between 1995 and 1998).

According to the DPWH Region VII, this project, together with the follow-on projects (MCDP II and III), made a tremendous impact upon the local community by improving arterial roads and traffic management, and by developing a reclamation area for industry. The improvement of the traffic environment provided better accessibility to the local community, attracting more people to the area, facilitating business activity, and stimulating the local economy<sup>9</sup>.

<sup>&</sup>lt;sup>8</sup> According to the officials of Cebu South Bus Terminal (CSBT), net profit of the CSBT showed a deficit from 1993 to 1997, however, for lack of the financial data during that period, the FIRR was recalculated on the assumption that net present values from 1993 to 1997 were 0. Thus, it is possible to say that the accurate recalculated FIRR would be lower than 7.9%.
<sup>9</sup> Population growth rate in Metro Cebu was 4.51% between 1995 and 2000 (2.36% in Philippines and 2.79% in Region VII). Most of the industrial establishment in Region VII (approximately 700 industries) are located in Metro Cebu.

Presently, Central Visayas (Region VII) is recognized as one of the fastest growing economies in the Philippines and one of the top six major contributors to the country's gross output.

#### 2.4.2. Impacts on the Environment

The change in air quality is one of the expected positive environmental impacts as a result of the project. The Environmental Management Bureau (EMB) has been monitoring air quality at least since 1995, the year the project was completed, at two permanent air quality-monitoring stations in Cebu City and Mandaue City. The table below shows the results of air quality monitoring.

|      |                     |               |              | ISP Unit: ug/Nem |  |  |  |
|------|---------------------|---------------|--------------|------------------|--|--|--|
|      | Monitoring Stations |               |              |                  |  |  |  |
| Year | DENR VII Re         | gional Office | Camp I       | Forestal         |  |  |  |
|      | Range               | Average       | Range        | Average          |  |  |  |
| 1995 | 37.85-216.85        | 142.60        |              | 104.60           |  |  |  |
| 1996 | 18.66-411.73        | 212.00        | 2.80-208.30  | 69.81            |  |  |  |
| 1997 | 37.96-274.40        | 226.13        | 33.87-110.34 | 82.12            |  |  |  |
| 1998 | 31.08-235.00        | 148.00        | 18.89-100.92 | 37.65            |  |  |  |
| 1999 | 6.05-289.40         | 238.50        | 5.36-150.00  | 89.38            |  |  |  |
| 2000 | 10.60-386.00        | 94.23         | 18.80-147.00 | 64.24            |  |  |  |
| 2001 |                     |               |              |                  |  |  |  |

Table 3: Summary of Air Quality (TSP) Monitoring Results in Metro Cebu

Source: EMB Region VII

Both stations show that the annual average TSP<sup>10</sup> amount is within 230 ug/Ncm, set in ambient air quality criteria in Republic Act 8749, "Philippine Clean Air Act," except for the monitoring station at DENR VII Regional Office in 1999. Since the air pollutants affecting Metro Cebu came from various sources<sup>11</sup>, it is hard to identify which is primarily responsible for affecting the air quality of Metro Cebu.

From the results of interview survey conducted in 2001, only 7%, 5% and 16% of respondents for the construction/improvement of national road, improvement of traffic management and construction of CSBT, respectively, said there was a negative impact on the environment, including air pollution from the exhaust of the vehicles and dust accumulating in the summer. The majority of respondents did not recognize any negative impact on the environment.

### 2.4.3. Impacts on Local Residents

There were more than 300 residents whose houses were relocated as a consequence of road construction in this  $project^{12}$ .

According to the DPWH Region VII, those who were relocated were concerned about the increased inconvenience in accessibility to transportation. The Local Government Units (LGUs), with the help of the Urban Poor Commission, however, provided adequate solutions for these residents, including the provision of temporary government vehicles until public vehicles were provided to the relocation sites, and the provision of water and power to those sites.

<sup>&</sup>lt;sup>10</sup> TSP (Total Suspended Particulates) is the primary air quality parameter.

<sup>&</sup>lt;sup>11</sup> Such as motor vehicles and other machines (land-based, sea-based and aircraft), road construction/improvement projects and spontaneous combustion of garbage in open dump sites.

<sup>&</sup>lt;sup>12</sup> Particularly, those residents who lived in the area where Imus-M.J. Cuenco Ave. was newly constructed were affected by the relocation.

### 2.5. Sustainability

There are three components to this project: arterial roads, traffic management and the Cebu South Bus Terminal. The DPWH was scheduled to assume responsibility for operation and maintenance of road and traffic management, while the Cebu Provincial Government was to be responsible for the Cebu South Bus Terminal. However, in accordance with the Government policy of decentralization, local government units were given greater participation; specifically, the Cebu City Traffic Operations Management (CITOM) was given responsibility for traffic management<sup>14</sup>.

### 2.5.1. National Road Component

Operation and Maintenance (O&M) of national roads involves the Maintenance Section of District Offices under the DPWH. In Metro Cebu, the Cebu City District Engineering Office is responsible for O&M of areas of the national road within Cebu City. For areas within Mandaue City (including Lapu-lapu City), the Cebu 1st District Engineering Office is responsible for O&M of the national road.

The DPWH is presently adopting two systems for road maintenance: one is maintained by administration (MBA<sup>15</sup>), and the other is maintained by contract (MBC<sup>16</sup>). In accordance with the Republic Act 8760, 70% of maintenance work in 2001 was to be done by MBC and 30% by MBA. Both MBA and MBC include routine and periodic maintenance works, which are carried out in accordance with a maintenance manual. In general, a maintenance foreman organizes 4 to 6 maintenance workers for every 20km of national roads, and conducts daily routine inspections and periodic maintenance. In the case of MBC, a foreman supervises the work of a private contractor to make sure it meets the Activity Standard set by the DPWH. There seems to be no serious problem in maintenance work so far.

The annual budget allocation for road maintenance is appropriated based on a fixed amount for each Equivalent Maintenance Kilometer (EMK<sup>17</sup>). The annual EMK budget allocation for Cebu City and Cebu I District Engineering Offices (DEOs) is shown in Table 4.

|           |       |       |       |       |       | Uni   | t: Million Peso |
|-----------|-------|-------|-------|-------|-------|-------|-----------------|
|           | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001            |
| Cebu City | 41.90 | 36.42 | 38.42 | 36.33 | 35.82 | 33.69 | 42.55           |
| Cebu I    | 16.41 | 16.85 | 17.78 | 13.56 | 19.27 | 20.43 | 20.37           |

Table 4: Annual EMK Budget Allocation (1995~2001)

Source: DPWH Region VII

The EMK budget allocation for both DEOs decreased in 1998 due to the Asian Economic Crisis, but the budget allocation for Cebu City DEO steadily increased between 1999 and 2001, while that for Cebu I DEO also increased in 2001. According to the DPWH Region VII, however, the amount of EMK budget allocation for both DEOs is not enough for an adequate maintenance work, particularly for preventive maintenance, in which the budget covers only about 30% of total needs.

<sup>&</sup>lt;sup>14</sup> The operation and maintenance organizations are as of July 2001.

<sup>&</sup>lt;sup>15</sup> Maintenance work is done by the DPWH's own maintenance workforce.

<sup>&</sup>lt;sup>16</sup> Maintenance work is done by private contractors, monitored by the DPWH (through District Offices). The DPWH only pays for acceptable work done by private contractors.

<sup>&</sup>lt;sup>17</sup> A formula for EMK converts the road network in each district into a length of standard road, by applying factors to each road section and bridge, including their width, pavement type, terrain, rainfall, traffic, etc.

During the field survey, minor damages, including cracks and potholes, were recognized, especially on the embankments of some of the roads implemented by the project. Other than that, roads are in fair condition. However, the future sustainability of the national road component remains uncertain unless both DEOs secure an adequate maintenance budget.

### 2.5.2. Traffic Management Component

Responsibility for Operation & Maintenance (O&M) of the traffic management system was transferred from the DPWH to the Cebu City Traffic Operations Management (CITOM), as mentioned earlier. The CITOM was created under Cebu City jurisdiction in 1987, and its main purpose is to make Cebu City an orderly urban locality with a comprehensive, measurable and sustainable Traffic Management Plan coordinated by the united efforts of all agencies concerned.

Currently, the Traffic Engineering Division under the CITOM is responsible for O&M of the traffic management system. The Division has 18 highly trained personnel<sup>18</sup>, consisting of 14 personnel for maintenance and 4 personnel for operation. The Division also houses the control center where operators monitor traffic conditions through the SCATS. If goes awry in the traffic management system, such as a malfunction of traffic signals, the Division immediately dispatches a maintenance team to the site.

The entire budget for CITOM, comes from Cebu City, which has increased its budget allocation steadily over the past 7 years (the budget for year 1999 was more than triple that of year 1994)(refer to Table 5).

|                         |       |       |       | Unit: Million Peso |
|-------------------------|-------|-------|-------|--------------------|
|                         | 1994  | 1997  | 1999  | 2001               |
| Operation               | 5.99  | 10.96 | 48.34 | 58.25              |
| Maintenance and Others  | 13.43 | 25.07 | 10.12 | 5.05               |
| Total Budget Allocation | 19.42 | 36.03 | 58.46 | 63.30              |

 Table 5: CITOM Annual Budget Allocation (1994~2001)

Source: CITOM

According to the CITOM, however, the budget allocation is not sufficient, so some portions of maintenance work, such as line marking and maintenance of traffic signs, have not been completed. As far as maintenance of the traffic management system is concerned, there is no problem associated with traffic signals.

Currently, the CITOM is operating traffic signals at 92 intersections in Metro Cebu<sup>19</sup>. Of these, traffic signals at 6 intersections are temporarily not operational owing to construction work and light traffic. Other intersections, including 15 intersections signalized under this project, are in full operation. Furthermore, Cebu City, through the CITOM, has shown leadership in Traffic Management, and its achievement is being duplicated, in one way or another, by other cities across the country.

<sup>&</sup>lt;sup>18</sup> CITOM has received RTA (Road and Traffic Authority) Training Program from the Australian Government, which is to provide instruction on how to operate and maintain the SCATS.

<sup>&</sup>lt;sup>19</sup> Those intersections include 72 intersections in Cebu City, 7 intersections in Mandaue City, 2 intersections in Lapu-Lapu city, and 1 intersection in Talisay City. 61 out of 72 intersections located in Cebu City are currently connected with SCATS.

### 2.5.3. Cebu South Bus Terminal Component

Construction on CSBT was completed in August 1992 and the facility was turned over to the Province of Cebu in February 1993. Currently, there are 27 personnel and 9 Philippine National Police (PNP) members working at the CSBT under the Governor of Cebu Province. The CSBT personnel include a consultant assigned to the function of terminal manager, 8 personnel dispatched from the Cebu Province, and 18 casuals. The current organizational arrangement is illustrated as follows:





The main function of the consultant is to oversee day-to-day operation of the terminal, while the Collection Section takes charge of the financial accounts. General Administration takes charge of general administration of the terminal building and deployment of maintenance personnel. The Maintenance Section under the General Administration takes responsibility for maintaining the terminal building.

Since August of 1998, janitorial services have been undertaken by a private janitorial service on a contract basis. Currently, 10 cleaners assigned in different shifts maintain the cleanliness of the terminal building. In addition, PNP/CSUs Quarter provides security for provincial personnel, tenants and passengers within the CSBT.

CSBT Management derives its income mainly from the rental of shops/stalls, terminal fees, parking fees<sup>20</sup> and user fees for waiting rooms. According to the current management officers, income and expenditures of the CSBT showed a deficit between 1993 and 1997 owing to the low occupation rate (40~50%) of shops and stalls.<sup>21</sup> However, the CSBT Management has achieved financial stability as a result of remarkable profit increases in the past three years (refer to Table 6).

<sup>&</sup>lt;sup>20</sup> Parking fees are collected from drivers of waiting buses/vehicles in the middle of parking ground, while a terminal fee is collected from bus drivers who use the terminal.

<sup>&</sup>lt;sup>21</sup> The CSBT was leased to a private cooperation in 1993. However, Cebu Province took over the operation and management of the terminal in 1994 as a consequence of the financial failure of the private cooperation.

|                          |      |       | Unit: Million Peso |
|--------------------------|------|-------|--------------------|
|                          | 1998 | 1999  | 2000               |
| Gross Income:            | 9.27 | 15.16 | 16.05              |
| Additional Income:       | 0.95 | 1.95  | 2.09               |
| Expenditures:            | 7.67 | 7.80  | 8.67               |
| Net Profit Before Taxes: | 2.55 | 9.31  | 9.47               |

 Table 6: CSBT Financial Statements (1998-2000)

Source: CSBT Management

Notably, remarkable increases in the years 1999 and 2000 were attributed to a change in the collection system for parking fees in 1999. The same year, the terminal fee was raised from P25.00 to P40.00, owing to economic inflation. As a result, the CSBT realized an average annual net profit of 9.39 million Pesos in the two-year period of operation from 1999 and 2000.

The CSBT has proved its profitability in recent operations and has become an indispensable public facility for the community. The current CSBT Management intends to expand the terminal area by constructing a farmers market and commercial center at the CSBT. Accordingly, the CSBT Management has proposed to the Governor that it should have its own personnel under a permanent organizational structure with a separate budget appropriation so that it can secure required budget and experienced personnel for the development and improvement of the terminal. If the proposal is accepted, the CSBT will further strengthen its function of providing public services.

### 3. Lesson Learned

For this project, MCDPO, which was established as a temporary Project Coordination Unit, adopted a scheme whereby facilities constructed/installed under this project were turned over to each O&M agency.

It was recognized that establishment of such a temporary project office was necessary to coordinate different organizations and to supervise construction work of different components of the project. The office also had the purpose of strengthening the local government units (LGUs) in implementing, managing, and maintaining the project through the MCDPO (Board) in pursuit of the decentralization policy of the Government. However, there is some doubt that the technical skills and knowledge acquired during project implementation were properly transferred to the LGUs, since none of the LGUs managed to produce data related to this project after the dissolution of MCDPO.

Therefore, in order to ensure continuous monitoring and project effectiveness, it is recommended that a system be set up such under which a permanent agency takes over management of data and technical skills acquired from project implementation from a temporary project office.

| Item   | Plan  | Actual  |
|--|---|---|
| <b>Project Scope</b><br>1. Construction/improvement of arterial road | Number of target roads: 15<br>Total length: 14.467km  | As planned<br>Total length: 13.298km  |
| 2. Improvement of traffic management system                          | 15 intersections  | As planned  |
| 3. Construction of Cebu South Bus Terminal                           | Site area: 1.1ha<br>Land area used for:<br>- Store: 480m <sup>2</sup><br>- Office: 403 m <sup>2</sup><br>Number of loading bays: 48 | Site area: 1.2ha<br>Land area used for:<br>- Store: 472.5m <sup>2</sup><br>- Office: 1,083 m <sup>2</sup><br>Number of loading bays: 40 |
| 4. Consulting Services   | Foreign: 50 M/M<br>Local: 181 M/M   | N.A.<br>N.A.  |
| Implementation Schedule  |   |   |
| 1. Selection of Consultant   | Apr. 1989-Dec. 1989   | Aug. 1989-Apr. 1990   |
| 2 Tendering/Contract Negotiation                                     | Jan. 1990-Sep. 1990   | Apr. 1990-Mar. 1993   |
| 3. Construction/improvement of arterial road                         | July 1990-Mar. 1994   | June 1991-June 1995   |
| 4. Improvement of traffic management system                          | July 1990-Mar. 1994   | Mar. 1993-July 1995   |
| 5. Construction of Cebu South Bus Terminal                           | Jan. 1990-Dec. 1991   | Nov. 1991-Aug. 1992   |
| Project Cost   |   |   |
| Foreign currency   | 1,283 mil. Yen  | 1,272 mil. Yen  |
| Local currency   | 314 mil. Rp   | N.A.  |
| Total  | 3,257 mil. Yen  | N.A.  |
| ODA Loan Portion   | 2,063 mil. Yen  | 2,027 mil. Yen  |
| Exchange Rate  | 1  Peso = ¥ 6.3   | 1  Peso =    4.588  |
|  | (As of April 1988)  | (The Weighted Average)  |

# **Comparison of Original and Actual Scope**

Source: Data from MCDPO and JBIC

## Independent Evaluator's Opinion on Metro Cebu Development Project

Mr. Wilfredo B. Carada Professor of Development Management and Governance, University of the Philippines Los Banos

The project is highly relevant. Metro Cebu, possesses an important position in the development of the Philippines, in general and of the Visayas group of islands, in particular. Since the late 1980s, Metro Cebu has been enjoying a continuous rapid socio-economic growth and demographic growth which were not equaled by infrastructure improvements. Traffic congestion is a daily situation confronted by the inhabitants due to narrow and poor roads coupled with poor accessibility of urban transport facilities and services. To cope with this situation, Metro Cebu Project provided for the improvement of arterial road, construction of a by-pass, installation of a proper traffic management system and construction of Cebu South Bus Terminal. For the inhabitants of the area, tourists, students, businessmen and others sectors, the Metro Cebu Development Project is highly relevant.

Both the Medium-Term Philippine Development Plan for 2001 to 2004 and the Medium-Term Regional Development Plan (for Central Visayas) 1999- 2004 give high priority to infrastructure development programs/projects. The Metro Cebu Development Project hopes to contribute the promotion of agricultural modernization, rural regional development, tourism development and of prime importance as a means to alleviate poverty. Most country development assistance strategies of various donor agencies usually placed high priority to infrastructure development. Extra work and minor quantitative deviation did not affect the relevance of the project.

Metro Cebu Development Project has generated several impacts. The road improvement and the traffic management components have improved traffic flow especially during the peak hours. Travel time has been substantially reduced due to the Project. Accessibility to transportation services was also facilitated due to another component, the construction of the Cebu South Bus Terminal.

Metro Cebu Development Project results into an overall improvement of the traffic environment that provides better accessibility to social and economic services. More people are attracted to visit or even stay in the area, business activities are also expanding, and local economy is being stimulated.

Generally, the project is contributing to the improvement of the air quality. Although 300 residents were relocated due to the Project, proper relocation site and arrangements were undertaken. Proper project operation and maintenance will ensure sustain benefits or impacts from the Project.