Country Name	The Project for Traffic Demand Management of Historical Area in Istanbul
Republic of Turkey	The Project for Traine Demand Management of Historical Area in Islandu

#### I. Project Outline

Background	In accordance with the economic growth and rapid population increase, the number of passenger cars significantly increased in Istanbul. However, transportation facility development had not kept up with the speed of this rapid motorization, amplifying urban problems such as chronic traffic congestion, frequent traffic accidents, and exhaust gas emissions.  Under such circumstances, in response to the request of the Government of Turkey, JICA conducted "The Study on Integrated Urban Transportation Master Plan for Istanbul Metropolitan Area in the Republic of Turkey" (the Study) in 2007-2009. Upon completion of the Study, the Government of Turkey requested a technical cooperation project in response to a component of "implementation of appropriate traffic management" under the Study.		
Objectives of the Project	Through (i) identifying issues on transportation planning, (ii) planning, implementing, evaluating and analyzing social experiments of Traffic Demand Management (TDM) measures, and (iii) summarizing the results of the social experiments as guidelines, the project aimed at strengthening Transportation Department's implementation capacities of TDM measures for the Istanbul historical area and there by contributing to implementing appropriate TDM measures in the Istanbul historic area and creating comfortable city environment.  1. Overall Goal: Appropriate TDM measures will be implemented in the Istanbul historical area to create comfortable city environment.  2. Project Purpose: Transportation Department's implementation capacities of TDM measures for the Istanbul historical area are strengthened.		
Activities of the project	<ol> <li>Project site: Istanbul</li> <li>Main activities: (i) identifying issues on transportation planning, (ii) planning, implementing, evaluating and analyzing social experiments of TDM measures, and (iii) summarizing the results of the social experiments as guidelines</li> <li>Inputs (to carry out above activities)</li> <li>Japanese Side</li> <li>Experts: 10 persons</li> <li>Turkish Side</li> <li>Trainees received in Japan: 13 persons</li> <li>Staff allocated: 17 persons</li> <li>Equipment: Equipment: Photocopying 2) Provision of spaces: office space machines, PC, and printers</li> <li>Operational Expenses: salaries of project staff, and others training expenses</li> </ol>		
Project Period	July 2011 – July 2014 (Extended Period: December 2013 Project Cost -July 2014)  Project Cost (ex-ante) 250 million yen, (actual) 356 million yen		
Implementing Agency	Transportation Department, Istanbul Metropolitan Municipality (IMM)		
Cooperation Agency in	Ministry of Land, Infrastructure, Transport and Tourism, Hiroshima University, The University of Tokyo,		
Japan	ALMEC Corporation, PADECO Co., Ltd.		

#### II. Result of the Evaluation

- < Special Perspectives Considered in the Ex-Post Evaluation >
- Continuation status of the Project Effects was verified under the Overall Goal, as the Overall Goal is set to verify how the enhanced capacities of TDM actually utilized for implementation.

# 1 Relevance

<Consistency with the Development Policy of Turkey at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the development policy of Turkey both at the time of ex-ante evaluation and project completion. The project was planned and implemented in line with Turkey's national development plan, "the Nineth Development Plan of Turkey" (2007-2013), particularly relating to its Development Axes of Increasing Competetiveness. Likewise, the project was one direct response to the "IMM's Strtegic Plan of Istanble Metropolitan Municipality" (2010-2014), where estblishment of smart transportation system for controlled and systematic pedestrian and vehicle traffic was evnisaged.

<Consistency with the Development Needs of Turkey at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the development needs of Turkey for resolving traffic problems. At the time of ex-ante evaluation, the number of passenger cars significantly increased in Istanbul. However, transportation facility development had not kept up with the speed of this rapid motorization, amplifying urban traffic problems. At the time of project completion, the problems and peculiarities of rapid urbanization were present, as they had been constantly present in Istanbul over the past decades.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

Prioritized areas agreed under the economic cooperation policy dialogue by Turkey and Japan in 2008 include human resource development for economic and social development.

Source: ODA Country Databook 2011

#### <Evaluation Result>

In light of the above, the relevance of the project is high.

## 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was achieved at the time of project completion. It was confirmed that 80% of the staff of the Transportation Department that worked with the project as counterparts had evaluated that their technical capacity on TDM was enhanced through their participation in the social experiment (smart parking system<sup>2</sup>) under the project, as the indicator set to measure the achievement of the Project Purpose envisaged. However, the 2nd social experiment (which was planned to solidify their skills acquired through the process of the first experiment) was not carried out. Lack of strong ownership from high decision makers (such as Mayor, Secretary General, Deputy Secretary General) in the municipality at the planning stage, during implementation and the post project period could be one factor for this result.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal was partially achieved. No additional TDM other than smart parking has been implemented, because smart parking area project was expanded to whole Istanbul based on the results/experience of the first social experiment implemented in historical area under the project. This measure have been implemented based on the experience of the project and in accordance with the guidelines prepared. Nevertheless, traffic congestion is still an agenda.

<Other Impacts at the time of Ex-post Evaluation>

No land acquisition and resettlement occurred under the project and no negative impact was observed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

	Achievement of Project Purpose and Overall Goal					
Aim	Indicators	Results				
(Project Purpose)	Indicator 1: More than 80% of staffs of the	Status of the Achievement: achieved				
Transportation	transportation department evaluate that	(Project Completion)				
Department's	implementation capacities of TDM	80% of the staff of the Transportation Department evaluated that worked with				
implementation capacities	measures are strengthened.	the project as counterparts had evaluated that their technical capacity on				
of TDM measures for the		TDM was enhanced through their participation in the implementation of the				
Istanbul historical area are		social experiment (smart parking system) under the project.				
strengthened.						
(Overall Goal) TDM measures will be implemented in the Istanbul historical area to create comfortable city environment.	Indicator 1: More than two (2) TDM measures are implemented in the Istanbul historical area.	<ul> <li>(Ex-post Evaluation) partially achieved</li> <li>No other measures than smart parking system have been implemented as TDM measure in historical area.</li> <li>Following the completion of the project, smart parking system was implemented and enhanced to whole Istanbul in collaboration with Traffic Coordination Center and ISBAK (Istanbul Informatics and Smart Cities Technologies-one of IMM's corporations) in 2013.</li> </ul>				
	Indicator 2: Visible improvement is realized by the TDM measures in the Istanbul historical area.	<ul> <li>(Ex-post Evaluation) partially achieved</li> <li>The parking areas in historical area became more of proper for ordinary vehicles. Smart banners on which fullness-emptiness ratio is shown and its web application are very beneficial for drivers to guide them to the closest available smart parking area.</li> <li>On the other hand, traffic congestion caused by commercial vehicles still keeps its importance. Ways to alleviate this problem is on the agenda of IMM.</li> </ul>				

Source: JICA documents, Questionnaire and interviews with Transportation Department, IMM

## 3 Efficiency

Both the project cost and project period exceeded the plan (the ratio against the plan: 142%, 123%), as planning of the station plaza and transfer facility of Yenikapi station was added to activities. The outputs were produced mostly as planned. Therefore, the efficiency of the project is fair.

### 4 Sustainability

### <Policy Aspect>

The policy support for traffic management is consistent. "Effective use of traffic demand management policies", "Dissemination of smart transportation systems and signaling", "Alleviation of traffic accidents, traffic congestion, air and noise pollution, gasoline consumption, and time lose" are stipulated in plans/regulations/laws such as the "Istanbul Metropolitan Municipality Strategic Plan" (2015-2019), the "Regulation on Principles and Procedures for Energy Efficiency Increasing (2016)", the "Municipal Law on Low Emission Area Implementations, Amendments on Metropolitan Municipality Law", and "Environment Law"

#### <Institutional Aspect>

There are four directorates under the Transportation Department. As for TDM-related projects, the Transportation Planning Directorate becomes a leader, and a project implementation unit is established in collaboration with other relevant directorates and corporations of IMM. Collaboration among parties when implementing a project is very strong which is very crucial from sustainability point of view. However, TDM is a continuous matter. Therefore, some staff of IMM thinks that instead of a project-based team, permanent establishment of TDM team is more desirable. Each directorate has consisted of competent number of staff with 50 members in the Transportation Planning Directorate. The number is sufficient, as IMM aims to keep the capacity and capability of each directorate at certain level in order to implement and sustain the on-going and prospective projects.

<Technical Aspect>

<sup>&</sup>lt;sup>2</sup> Introduction of parking information service by a website, cellular phones, and parking information boards

The Transportation Department has enough capacity, most of staff has master degree either on transportation or on city/urban planning, to follow technological developments in the sector, to detect the problems, to propose ways of solutions and to implement the pilot survey studies in collaboration with other relevant departments of IMM. Four counterpart members of the project are still working at Transportation Planning Directorate. Some of them have transferred to other relevant departments (due to human resources policy) of IMM where their connection is still being kept. There is a mechanism at IMM to maintain and upgrade the technical capacity. As for TDM projects, experienced technical staff members and/or outsourced experts disseminate the experience through training, and acquired experience is consolidated through project implementation in collaboration with other IMM directorates.

<Financial Aspect>

Whole budget of IMM is higher than that of 18 ministries in Turkey. There seems no problem for budget allocation for any approved project.

## **Budget of IMM and Transportation Department**

(Unit: million TL)

	2013	2014
IMM planned budget	8,000	9,100
IMM realized budget	8,600	12,500
Transportation Department's planned budget	112	151
Transportation Department's realized budget	176	369

#### <Evaluation Result>

Therefore, the sustainability of the effects through the project is high.

## 5 Summary of the Evaluation

The project achieved its Project Purpose at the time of project completion, as 80% of the counterparts had evaluated that their capacity was enhanced through the participation in the project. The Overall Goal was partially achieved, as smart parking system which was implemented by the project has been implemented in other areas after the project was completed. As for the sustainability, there are slight problems in terms of institutional aspect. As for the efficiency, both the project cots and project period exceeded the plan.

Considering all of the above points, this project is evaluated to be satisfactory.

# III. Recommendations & Lessons Learned

## Recommendations for Implementing Agency:

Under the coordination of the Transportation Planning Directorate, the Transportation Department is recommended to implement varieties of social experiments such as pricing measures (road pricing, public transport fare structure), innovative measures (card operating car, dial & ride, car pooling), regulatory measures (access control, traffic calming zones, cycling, public transportation promotion), supplementary measures (high occupancy vehicle lane, ramp metering) depending on the area and necessity in whole Istanbul. Contents of social experiments may be diversified depending on the target area. The reason for traffic congestion varies from area to area.

# Lessons Learned for JICA:

• The project organized regular workshops/seminars during the implementation of the project, especially for the third parties, for sharing the progress/receiving comments which brought success for the dissemination of implemented social experiment "smart car parking project". Therefore, in order to reflect the result of social experiments and the results of capacity development into practical implementation, organizing this kind of regular workshops/seminars are important.

In order to reflect the social experiment into actual measures, the Turkey side could have taken the following actions:

• Strong presence especially from high level decision makers of the municipality is a must for the strong ownership of the project regardless of the bigness of the municipality and availability of budget and human resources. Since traffic congestion has various effects on environment, rapid urbanization, and life styles of humans etc., wide spectrum approach would be more effective. Therefore; multidisciplinary collaboration among economists, psychologists, traffic engineers and policy analyst from universities and other relevant organizations is a must as a team member to reduce the traffic congestion, environmental pollution and human stress level, in the planning / implementation / post-implementation stages of the project.



Smart parking system information signboard



Smart parking car entrance/exit