

## Ex-Ante Evaluation of the Project

### 1. Name of the Project

Country:	Republic of Tunisia
Project:	Gabes-Medenine Trans-Maghrebin Corridor Construction Project
Loan Agreement:	February 17, 2012
Loan Amount:	15,084 million yen
Borrower:	Société Tunisie Autoroutes (STA)

### 2. Background and Necessity of the Project

#### (1) Current State and Issues of the Road Sector in the Republic of Tunisia

Ahead of the establishment of the Euro-Mediterranean Free Trade Area (EMFTA), the Republic of Tunisia (hereinafter called Tunisia) is promoting the development of an economic base designed to nurture its export industry and to attract private investment. An example of this is the signing of the Agadir Agreement on an FTA with Morocco, Egypt and Jordan. At the same time, Tunisia regards improving infrastructure for the purpose of securing sustainable growth and eliminating the disparity between urban and rural areas as an important issue. National Road RN1 is a major arterial road in Tunisia, carrying a large volume of traffic (in particular, large trucks and other commercial vehicles). It is a local road with one lane in each direction. As a consequence of the increase in economic activity in southern Tunisia, which includes the area along the border with Libya, the volume of traffic has increased, resulting in an increase in traffic accidents and transit times. The idea of constructing the Trans-Maghrebin Corridor (Cairo-Agadir) began in 1995, and development has since been advanced by the countries involved (Egypt, Libya, Tunisia, Algeria and Morocco). The aim of this project is to construct a section of the Trans-Maghrebin Corridor, in the hope of further boosting efficiency and revitalization of distribution and transportation in southern Tunisia as well as in other North African countries.

#### (2) Development Policies for the Road Sector in Tunisia and the Priority of the Project

Under its 11th Five-Year Plan (2007-2011), with an aim of modernizing its road network, and in particular, making the movement of people and goods more efficient, Tunisia has focused on the development of highways as the backbone for strengthening industrial competition. Also, in September 1998, the Tunisian government formulated a highway development plan (target was to construct five sections of highway by 2012, with a total length of approximately 520 km), and it has since promoted the development of highways radiating out from the national capital, Tunis, focused on three axes: Highway No. 1 (260 km), Highway No. 3 (140 km) and Highway No. 4 (50 km, approximate distances). For the purpose of implementing road development programs, including this project, the Tunisian government increased its budget for the road sector by about 30% from 1,558 million dinar in the 10th Five-Year Plan (2002-2006) to 2,057 million dinar in the 11th Five-Year Plan (2007-2011).

#### (3) Japan and JICA's Policy and Operations in the Transport Sector

In the transport sector, JICA has previously provided yen loans for the Rades-La Goulette Bridge Construction Project (8,403 million yen), the Metropolitan Railway Electrification Project (13,171 million yen) and Phase II (4,569 million yen), and the El Jem-Sfax Motorway Construction Project (12,501 million yen). This project will support Tunisian efforts aimed at rectifying regional disparities through the development of rural infrastructure. Development in southern Tunisia, which is the region targeted by the Project, is lagging somewhat behind that in the north, and this project is

consistent with the “correction of disparity,” which is one of Japan’s priority areas with regard to economic cooperation for Tunisia. Furthermore, the Project also contributes to support for regional transport infrastructure, which is one of the focuses of the TICAD IV Yokohama Action Plan.

#### **(4) Other Donors’ Activity**

In terms of support provided by other donors for the Société Tunisie Autoroutes, assistance has previously been provided by such organizations as the European Investment Bank and the Arab Fund for Economic and Social Development. Loans for the construction of local roads have also been provided by such organizations as the World Bank and the African Development Bank.

#### **(5) Necessity of the Project**

This project deals with the increasing volume of traffic, for the advancement of southern Tunisia which is lagging when it comes to development. Furthermore, it is consistent with Japan’s aid priorities, and so the necessity and validity of this Project are high.

### **3. Project Description**

#### **(1) Project Objective**

By developing the Gabes-Medenine section of the Trans-Maghrebin Corridor, which traverses Tunisia, the Project aims to boost the capacity for transporting goods such as agricultural, fisheries and livestock produce, and to improve access to economic and social services for local residents along the road. In turn, this will contribute to the economic development of the surrounding region and also to the improvement of living conditions for local residents along the road.

#### **(2) Project Site/Target Area**

Gabes-Medenine (approximately 84 km)

#### **(3) Project Components**

Construction of a highway with two lanes in each direction, as well as interchanges, bridges, overpasses and other structures in the section mentioned above.

- Civil engineering works, procurement of materials and equipment, and consulting services (construction supervision, etc.)
- Procurement method: international competitive bidding

#### **(4) Estimated Project Cost (Loan Amount)**

31,145 million yen (including agreed loan amount: 15,084 million yen)

#### **(5) Schedule**

Planned for February 2012 – June 2018 (77 months in total); the Project will be completed when the facilities start operation (July 2016).

**(6) Project Implementation Structure**

- 1) Borrower: Société Tunisie Autoroutes
- 2) Guarantor: The Government of the Republic of Tunisia
- 3) Executing Agency: Société Tunisie Autoroutes
- 4) Operation and Maintenance System: Following the Project, operation and maintenance will be conducted by the relevant STA departments responsible for each target area.

**(7) Environmental and Social Consideration/Poverty Reduction/Social Development**

1) Environmental and Social Consideration

(1) Category: A

(2) Reason for Categorization: This Project is classified as Category A because it comes under the large-scale project in the road sector according to the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established in April 2002).

(3) Environmental Permit: Assessment of an environmental impact assessment (EIA) report for the Project was completed by the National Agency of Environment Protection in March 2010, and approval for execution of the Project has been given by the Ministry of Equipment, which is the competent authority.

(4) Anti-Pollution Measures: Regarding air pollution and noise after the start of the Project, tree-planting and other measures will be taken. With regard to the environmental impact during construction, no particular impact is expected because water will be sprinkled over the roads and maintenance of construction vehicles will be conducted regularly.

(5) Natural Environment: The target area is not located in or around any sensitive areas, such as national parks, and so any adverse impact on the natural environment is assumed to be minimal.

(6) Social Environment: The Project involves the acquisition of about 889 ha of land. The land will be acquired according to necessary procedures in Tunisia. It is also estimated that about 14 people in two households will need to be resettled. Compensation will be provided for the reacquisition price according to domestic law.

(7) Other/Monitoring: The STA will monitor air quality and noise, etc. during construction and operation of the Project. The STA will also check the progress of land acquisition and resettlement.

2) Promotion of Poverty Reduction

Through developing the key transport network in the target area, the Project will act as an economic base for the region, and will contribute to rectifying regional disparities between the north and the south.

- 3) Promotion of Social Development (gender perspective, measures for infectious diseases including HIV/AIDS, participatory development, consideration for persons with disabilities, etc.)  
None in particular.

## (8) Other Schemes and Collaboration with Other Donors

A loan has been committed by the African Development Bank for the highway between Medenine and the Libyan border. The Tunisian government aims for this construction to be completed at the same time as the section being constructed in this Project, and so supervision of the Project, including the sharing of information, will need to be coordinated with the African Development Bank.

## (9) Other Important Issues

None in particular.

### 4. Targeted Outcomes

#### (1) Quantitative Effects

##### 1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline	Target
	Actual Value in 2010	2018 [2 years after project completion]
Annual average daily traffic (AADT) (vehicles/day)	<u>National Road RN1 (existing)</u> Gabes - Mareth: 9,589 RR116 - Medenine: 7,628  <u>Highway No. 1 (new)</u> -	<u>National Road RN1 (existing)</u> Gabes - Mareth: 7,156 RR116 - Medenine: 5,409  <u>Highway No. 1 (new)</u> Gabes South IC - Djerba IC: 13,056 Djerba IC - Medenine IC: 10,695
Reduction in travel time (million TND/year)	-	17.5
Travel costs (TND/km)	<u>National Road RN1 (existing)</u> Small vehicle: 0.309 Large vehicle: 1.096	<u>Highway No. 1 (new)</u> Small vehicle: 0.240 Large vehicle: 0.919
Number of traffic accidents (accidents/million vehicle-km)	<u>National Road RN1 (existing)</u> 0.19  <u>Highway No. 1 (new)</u> -	<u>National Road RN1 (existing)</u> 0.18  <u>Highway No. 1 (new)</u> 0.11

##### 2) Internal Rates of Return

Based on the conditions indicated below, the economic internal rate of return (EIRR) of the Project will be 27.7% and the financial internal rate of return (FIRR) will be 1.9%.

[EIRR]

Cost: Project cost (excluding taxes), operating and maintenance costs

Benefits: Savings in vehicle traveling costs, reductions in travel time, and decrease in number of traffic accidents

Project life: 20 years

[FIRR]

Cost: Project cost, operating and maintenance costs

Benefits: Revenue from toll charges

Project life: 20 years

## **(2) Qualitative Effects**

Contribute to the improvement of access to economic and social services and to the improvement of living conditions for local residents, as well as to development of the economy.

## **5. External Factors and Risk Control**

None in particular.

## **6. Lessons Learned from Past Projects**

### **(1) Evaluation of similar past projects**

The opinion of an interim review of a past project, the El Jem-Sfax Motorway Construction Project, was that, in new highway projects, the executing agency should be reminded to collect data and put systems in place for the measurement of operation and effect indicators in preparation for the ex-post evaluation after the project is completed.

### **(2) Lessons for the Project**

During construction, the consultant will measure operation and effect indicators on a periodic basis, and will report the results of those measurements to the executing agency, thereby strengthening the data collection system.

## **7. Plan for Future Evaluation**

### **(1) Indicators to be used**

- 1) Annual average daily traffic (AADT) (vehicles/day)
- 2) Reduction in travel time (million TND/year)
- 3) Travel costs (TND/km)
- 4) Number of traffic accidents (accidents/million vehicle-km)
- 5) Internal rates of return (EIRR, FIRR) (%)

### **(2) Timing**

Two years after project completion