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AFRICAN DEVELOPMENT BANK

PROJECT : GABES-MEDENINE-RAS JEDIR HIGHWAY CONSTRUCTION PROJECT

MEDENINE-RAS JEDIR SECTION

COUNTRY : TUNISIA

PROJECT APPRAISAL REPORT

Date: January 2011

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Currency Equivalents
September 2010

UA 1 UC = EUR 1.19
EUR 1 = TND 1.86
UA 1 UC = TND 2.22

Fiscal Year
1 January - 31 December

Weights and Measures
1 metric ton = 2 204 pounds
1 metre (m) = 3.28 feet
1 millimetre (mm) = 0.03937 inch
1 kilometre (km) = 0.62 mile
1 hectare (ha) = 2.471 acres

Acronyms and Abbreviations

A1	:	Highway N°1 linking Tunis to the Libyan border
AFD	:	French Development Agency (Agence Francaise de Développement)
ADB	:	African Development Bank
AFESD	:	Arab Fund for Economic and Social Development
AMU	:	Arab Maghreb Union
ANPE	:	National Environmental Protection Agency
BC	:	Bituminous Concrete
BCT	:	Central Bank of Tunisia
BG	:	Bituminous Gravel
CG	:	Crushed Gravel
CSP	:	Country Strategy Paper
DGPC	:	General Directorate of Highways
DPSP	:	Department of Project Planning and Monitoring
DREHAT	:	Regional Department of Infrastructure and Housing
EIA	:	Environmental Impact Assessment
EIB	:	European Investment Bank
EIRR	:	Economic Internal Rate of Return
ENPV	:	Economic Net Present Value
FIRR	:	Financial Internal Rate of Return
FNPV	:	Financial Net Present Value
GP (RN)	:	Trunk Road (National Road)
HDV	:	Heavy Duty Vehicle
INS	:	National Institute of Statistics
MC (RR)	:	Secondary Roads (Regional Roads)
MF	:	Ministry of Finance
MPCI	:	Ministry of Planning and International Cooperation
MTE	:	Ministry of Transport and Infrastructure
MUA	:	Million UA (Bank Unit of Account)
PK	:	Mileage Point
PV	:	Private Vehicle
RL (RVE)	:	Local Roads
RR	:	Regional Roads (or Secondary Roads-MC)
SD	:	Surface Coating

STA	:	Tunisia Highways Corporation (Société Tunisie Autoroutes)
TND	:	Tunisian Dinar
UA	:	Unit of Account of the African Development Bank
VOC	:	Vehicle Operating Costs

PROJECT INFORMATION SHEET

Client Information

Borrower	:	Tunisia Highway Corporation, with guarantee from the Tunisian Government
Project Name	:	Gabes-Medenine-Ras Jedir Highway Construction Project: Medenine-Ras Jedir Section
Location	:	Gabes and Medenine Governorates
Executing Agency	:	*Société Tunisie Autoroutes* (Tunisia Highways Corporation - STA)

Financing Plan

Source	**Amount excl. taxes (EUR)**	**Instrument**
ADB	137.34 million	Project Loan
JICA	136.47 million	Project Loan
Government of Tunisia/STA	180.97 million	National Budget
Total Cost	**454.78 million**	

Key Economic and Financial Information

Loan Currency	Euro (EUR)
Loan Interest Type	Floating
Interest Rate Margin	60 basis points + Bank variable cost margin
Commitment Fee	N/A
Other Costs	N/A
Repayment	Half-yearly
Tenor	20 years
Grace Period	60 months
ENPV (baseline scenario)	TND 2,204 million
ERR (baseline scenario)	24.8 %
FNPV (baseline scenario)	TND 200 million
IRR (baseline scenario)	5.84%

Timeframe – Main Milestones (expected)

Concept Note Approval	November 2010
Project Approval	June 2011
Signature	January 2012
Effectiveness	June 2012
Last Disbursement	31 December 2016
Loan Closure	31 December 2017
First Repayment	January 2018

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EXECUTIVE SUMMARY

Project Overview

1. This project consists in the construction of the Gabes-Medenine-Ras Jedir highway link, for a total cost of EUR 454.78 million. It is co-financed by the Bank with a EUR 137.34 million loan, the Japanese International Cooperation Agency, with a EUR 136.47 million loan which is already approved, and the Tunisian Highways Corporation/Tunisian Government, with a contribution amounting to EUR 180.97 million. Specifically, the project includes the construction of 195.020 km of a 2x2 lanes highway between Gabes and Ras Jedir (Libya-Tunisian border). The ADB loan will be used specifically to finance the construction of the Medenine-Ras Jedir section. Project activities will start immediately upon loan approval, and will be completed around December 2015.

2. The project's influence area (PIA) is located in the south-eastern region of Tunisia, which displays some of the highest rates of poverty and unemployment in the country. It includes cities such as Ben Gardane, Tataouine, Medenine, Zarzis and others. The project is expected to generate around 2000 employment opportunities during the construction phase and 160 during the operation phase. Furthermore, it is expected that around 30,000 other indirect employment opportunities could be generated in the region in the mid to long-terms, principally in the tourism and services sectors. This operation will contribute to the Tunisian Government's priority programme put in place in the wake of the Revolution and which notably aims at reducing regional disparities by unlocking isolated rural areas and curbing unemployment, especially among the youth. The project's processing has started in November 2010, is part of Tunisia's 11th Social and Economic Development Plan, and was confirmed by the Tunisian Government after the Revolution.

Needs Assessment

3. Road traffic projections show that by 2015, the expected commissioning year for the highway project, several sections of the national road number 1 (RN1), the main route currently taken by users from Gabes to Ras Jedir will be saturated. If no compensatory measures are taken, this significant increase in traffic is expected to adversely affect traffic conditions on this road. Given the important agricultural industrial and tourism potential in this region, the expected continued strong growth of trade and tourism between Libya and Tunisia, as was noted during the last decade, the Tunisian government has expressed the strategic relevance of scaling up the transport capacity and improving traffic conditions in this region.

4. This project aims at improving the overall functioning and efficiency of Tunisia's transport system in order to effectively contribute to growing the country's domestic and international trade. More specifically, the project will facilitate the movement of goods and people between Gabes and the Tunisian-Libyan border and provide greater accessibility to key development centers located in the south-eastern region of the country. In addition, by linking Gabes to the Tunisian-Libyan border, the new highway will achieve one of the two missing links on the Tunisian territory of the Trans-Maghreb Highway and thus contribute to reinforcing regional integration within the five countries forming the Arab Maghreb Union (UMA). The sections of this highway also constitute major links of corridor No. 1 of the trans-African highway network which objective is to link Dakar, Senegal to Cairo, Egypt.

Added Value for the Bank

5. The Bank's contribution to this project will enable it to assist the Tunisian Government in implementing its national highway programme, including the construction of the Trans-Maghreb Highway, which is one of its priority projects. Most importantly, and under the current circumstances, the project will help Tunisia implement its priority program and support measures taken in addressing pressing socio-economic issues that have arisen from the recent Revolution. The project will in fact complement other forms of assistance currently being prepared by the Bank in support of Tunisia's democratic transition.

Knowledge Building

6. Defining the key impact indicators prior to project start-up and conducting impact assessment at the end of the project will help generate useful information on project outcomes and impacts. This knowledge will be collected and consolidated into a database hosted and managed by the Tunisia Highways Corporation, and will be disseminated in the annual reports and posted on the websites of the Bank and the Ministry of Transport and Infrastructure (MTE).

Results-Based Logical Framework

Country and Project Title: Gabes-Medenine-Ras Jedir Highway Construction Project – Medenine-Ras Jedir Section
Project Goal: Improve traffic conditions and accessibility between Gabes and the Tunisia-Libya border and the key development centres of the South-East region.

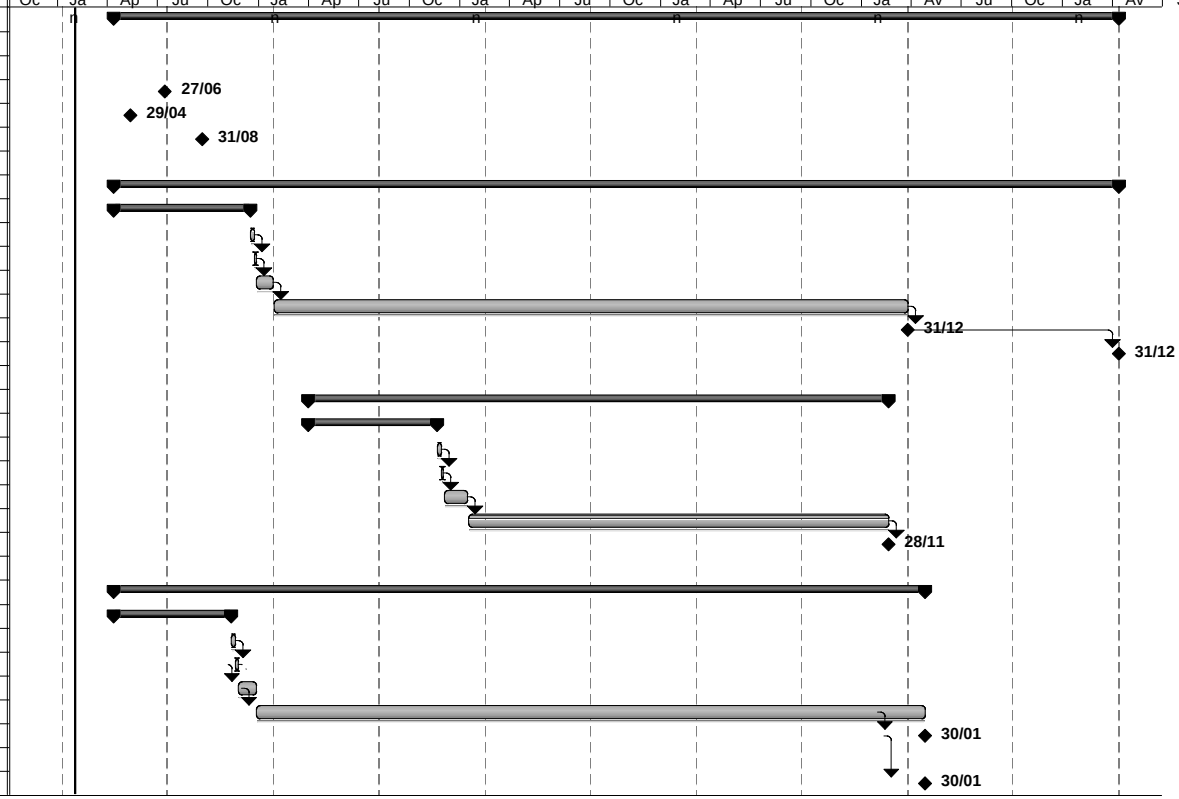
	RESULTS CHAIN	PERFORMANCE INDICATORS Indicator (including ISCs)	Baseline	Target	MEANS OF VERIFICATION	RISKS/MITIGATIVE MEASURES
IMPACT	Contribute to strengthening sub-regional integration, and growing Tunisia's domestic and international trade volumes, and its tourism sector.	i) Trade volumes. ii) Number of hotel nights.	i) Trade volumes in 2010: - Total: €23.6 bil - W/ Libya: €1.6 bil ii) Nbr of nights in 2010: - Tunisia: 31.6 mil - South-East region: 8.2 mil	i) Trade volumes in 2015: - Total: €28.1 bil - W/ Libya: €1.8 bil ii) Nbr of nights in 2015: - Tunisia: 35.0 mil - South-East region: 9.4 mil	Annual statistics data provided by Tunisia's National Institute for Statistics.	*Assumptions* 1. Acceptance of the main thrusts of the Five-Year 12th Social and Economic Development Plan by the new Government elect.
OUTPUTS	i) Reduction in overall transport costs. ii) Enhanced traffic conditions b/w Gabes and the Tunisia-Libya border. iii) Improved accessibility to development poles located in the south-east region.	i) Average travel time. ii) Vehicle Operating Costs (VOC). iii) Number of road accidents (per million veh-km) and level of mortality on the project road section (number of deaths/accident). iv) Number of economic poles/centers accessible by highway.	i) In 2010, current average travel time = 4 hrs. ii) In 2010, VOC = 0.869 TND/km. iii) In 2010, number of road accidents = 0.19 accidents/million veh-km; and 0.42 deaths/accident. iv) In 2010, number of economic poles/centers accessible by highway is null.	i) By 2015, average travel time = 2 hrs. ii) By 2015, VOC = 0.580 TND/km. iii) By 2015, the number of accidents will be 0.12 accidents/million veh-km; and 0.27 deaths/accident. iv) By 2015, the number of economic poles/centers accessible by highway is 4.	1. Traffic surveys and traffic counts by the Ministry of Transport and Infrastructure. 2. Annual statistics data provided by Tunisia's National Institute for Statistics. 3. Surveys by the National Observatory for Road Safety.	*Assumptions* 1. Continuation of upgrading programme in the road infrastructure sub-sector. 2. Establishing and maintaining a stable socio-political climate, allowing the free movement of goods and persons on the routes serviced.

RESULTS CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATIVE MEASURES
	Indicator (including ISCs)	Baseline	Target		
OUTPUTS	i) (a) 188.520 km of highway (92 km of which are Bank-financed); (b) five (5) toll stations built between Gabes and Ras-Jedir (2 of which are Bank-financed). ii) (a) 5 toll stations equipped; (b) 4 service buildings built and equipped; (c) 2 facilities and maintenance buildings built and equipped.	i) (a) Length of highway built; and (b) number of toll stations built. ii) Number of toll stations equipped, service buildings and maintenance facilities built and equipped. iii) Number of jobs created during works.	N/A	i) (a) 100 km of highway built by 2013 and 188.520 km by 2015; (b) 2 toll stations built by 2013 and 5 by 2015. ii) (a) 5 toll stations equipped; (b) four service buildings; (c) 2 maintenance facilities built and equipped by 2015. iii) 2 000 direct jobs will be created during the works.	i) Works progress and completion reports.	*Assumptions/Risks* 1. Continued socio-political instability causing unrest and disturbances in the country and neighbouring Libya. 2. Decrease in international traffic due to the conflict in Libya. 3. Delay in works execution due to late release of right-of-way. 4. Increased project costs from soaring input costs. *Mitigative Measures* 1. Increased credibility of the transitional government to prepare elections slated for July-August 2011, continued support from development partners and donors in ensuring a smooth democratic transition. 2. The situation in Libya is believed to be temporary and the traffic generated by Libya- represents only 6.6% of the total traffic expected on the highway. 3. A provision of €22.74 million for the compensation has been budgeted. Furthermore, the release of the right-of-way necessary will be a loan condition. 4. A provision of €22.27 million (5.3% of base cost plus scope variation) has been budgeted.

KEY ACTIVITIES	COMPONENTS	RESOURCES
	i) Civil engineering works: (a) construction of 195.020 km of highway between Gabes and Ras-Jedir including ; (b) construction of toll stations; and (c) works control and supervision; ii) Installation of toll facilities; iii) Compensation of populations affected by the project; iv) Management and monitoring of project implementation: (a) monitoring of implementation by Tunisia Highways Corporation; (b) Annual audit of project accounts by a private auditing firm; and (c) monitoring of implementation of environmental and social impact mitigation and road safety measures (not budgeted).	i) EUR 404.93 million [ADB participation: EUR 128.43 million] ii) EUR 27.11 million [ADB participation: EUR 8.91 million] iii) EUR 22.74 million [ADB participation: 0]

Implementation Schedule: Gabes-Medenine-Ras Jedir Highway Construction Project: Medenine-Ras Jedir Section

N°	Task Name
1	TUNISIA - GABES - RAS JEDIR HIGHWAY: MEDENINE - RAS JEDIR SECTION
2	**GENERAL ACTIVITIES**
3	Loan Approval
4	Signing of Loan Agreement
5	Publication of General Procurement Note
6	Loan Effectiveness
7	
8	**HIGHWAY AND TOLLING STATIONS CIVIL ENGINEERING WORKS**
9	**Procurement Process**
25	Registration of Contracts
26	Instructions to Contractor for Start of Works
27	Mobilisation of Contractor and Installation
28	Works Execution
29	End of Works /Provisional Acceptance
30	Final Acceptance of Works
31	
32	**CONSTRUCTION OF BUILDING AND INSTALLATION OF TOLL STATION FACILITIES**
33	**Procurement Process**
48	Registration of Contracts
49	Instructions to Contractor for Start of Works/Supply & Installation of Facilities
50	Mobilisation of Contractor and Installation
51	Works Execution/Supply & Installation of Toll Station Facilities
52	End of Works/Acceptance
53	
54	**CONTROL AND SUPERVISION**
55	**Procurement Process**
74	Registration of Contracts
75	Instruction to Consultant for Start of Services
76	Mobilisation of Consultant and Installation
77	Execution of Control and Supervision Services
78	End of Services
79	
80	Project Completion



REPORT AND RECOMMENDATION OF BANK GROUP MANAGEMENT TO THE BOARD OF DIRECTORS ON A PROPOSED LOAN TO *SOCIÉTÉ TUNISIE AUTOROUTES* (TUNISIA HIGHWAYS CORPORATION) FOR THE CONSTRUCTION OF THE GABES-MEDENINE-RAS JEDIR HIGHWAY: MEDENINE-RAS JEDIR SECTION

Management hereby submits the following Report and Recommendation on a proposed loan of EUR 137.34 million to *Société Tunisie Autoroutes* (Tunisia Highways Corporation) to contribute to the financing of the construction of the Medenine-Ras Jedir highway section of the Gabes-Medenine-Ras Jedir Highway Construction Project.

I. PROJECT STRATEGIC THRUST AND RATIONALE

1.1. Project Linkages with Country Strategy and Objectives

1.1.1 The proposed highway project is located in south-eastern Tunisia which, despite a diversified economic potential, is struggling to gain competitiveness and generate sufficient employment opportunities. This region is home to the governorates of Gabes and Medenine where economic activity revolves around the agricultural and industrial sectors (phosphate processing, food processing, construction materials, and textiles). The region is also characterized by its tourist-oriented activities and services, particularly on the island of Djerba, a popular tourist destination which helped raise the reputation of the region to international levels. In addition, the development potential of this region is not independent from its proximity to Libya. This country is indeed Tunisia's second most important trading partner after the European Union (EU), with bilateral trade volumes reaching nearly €1.5 billion in 2009, (5% of Tunisia's total trade in the same year). Since 2003, Tunisia has also positioned itself as a favorite destination for Libyan tourists, each year attracting about 1.8 million of them. Conversely, Libya is the first Tunisian tourist destination ahead of France, Italy and Algeria, with 1.24 million Tunisian visits to Libya in 2009. Both for trade and the overwhelming majority of tourists, the preferred transportation route between the two countries is the National Road No. 1 (RN1) linking Tunis to the Libyan border.

1.1.2 The steady growth of tourism and trade with Libya and with the North-eastern regions of the country was not followed by the necessary capacity increase to accommodate the growing demand for a reliable, safe and cost-effective transport conditions on the RN1. As a result, traffic conditions on this strategic road are rapidly deteriorating, leading to increased vehicle operating costs, a decrease in road safety and environmental degradation and increased air pollution. Additionally, it shall be noted that traffic projections are expected to cause saturation by 2015 if no compensatory measures are taken. The Tunisian Government has thus decided to tackle this issue through the construction of a highway between Gabes and Ras Jedir. This project is consistent with Tunisia's transport policy, based notably on the modernization, strengthening and development of the national transport infrastructure network. This policy emphasizes expanding the highway network throughout the next decade, giving priority to the implementation of the Trans-Maghreb highway of which the current project is an integral part. Following consultations with the Bank, various concerned Ministries have confirmed the validity of the objectives of this policy and its major programs and related investments.

1.1.3 Moreover, it is worth noting that the Tunisian Revolution which occurred between December 2010 and January 2011 resulted in the emergence of numerous social demands, exacerbated by the repatriation of a large number of Tunisian workers fleeing the ongoing conflict in Libya. The economic activity and investment also significantly declined in key sectors and exports of goods and services. To meet this challenge, Tunisia's Transitional Government has recently launched a comprehensive and short-term economic and social agenda. This program focuses on five priorities: (i) security, (ii) employment, (iii) support to the economy including its financing, (iv) regional development and (v) social actions. The

proposed project was initiated in 2010 and will complement other Bank operations currently under consideration, aiming at contributing effectively to the implementation of this priority agenda. In particular, the project will help create direct and indirect jobs in its immediate influence area, which includes the cities of Ben Gardane, Tataouine, Medenine, Zarzis and other historically less–endowed cities in the country which populations took an active role in leading the Revolution. The project is also part of the STA's development plans prior to the Revolution.

1.2. Rationale for Bank Intervention

1.2.1. The long-standing and enriching experience acquired by the Bank in financing road transport projects in Tunisia and elsewhere on the African continent bodes well with its commitment to pursue such a deep-rooted engagement. The proposed project is in line with the Bank's Medium-Term Strategy (MTS) for the period 2008-2012, of which the third of nine key commitments is to "give priority to infrastructure, governance, private sector development, higher education, technical education and vocational training". The MTS is designed to direct a significant part of its new commitments towards infrastructure, particularly transport, energy and new information and communication technologies (NICT).

1.2.2. Similarly, by linking Gabes to the Tunisia-Libya border, the proposed project will help complete one of two missing links of the Trans-Maghreb Highway on the Tunisian territory, with the second missing link connecting the Algerian border, to the town of Oued Zarga (150 km). The project will thus contribute to accelerating the regional and economic integration of the five countries forming the Arab Maghreb Union (AMU) since the proposed Trans-Maghreb Highway is intended to bring closer the five Arab Maghreb countries by establishing a highway corridor linking Nouakchott, Mauritania to Cairo, Egypt. Regional integration is one of the pillars of the Bank's MTS and is the goal of AMU which constituting treaty, signed in 1989, aims to establish an economic union in the Maghreb sub-region. The highway will serve as a vital nerve for the region's economy, with an expected intensification of inter- and intra-Maghreb trade, in accordance with the objectives of adopting a common policy and market. The sections of this highway are also key links of Corridor N°1 of the Trans-African road network, which aims at eventually connecting Dakar to Cairo.

1.3. Donor Coordination

1.3.1. In Tunisia, the Five-Year Economic and Social Development Plan is the main reference framework for the interventions of the Government and its development partners. Under the responsibility of the Ministry of Planning and International Cooperation (MPCI), coordination and synergy mechanisms are established at the official launch of each five-year development plan to channel and coordinate external development assistance to the country. Outside these periods, coordination occurs on an ad-hoc and sector-by-sector basis. Some attempts to formalise the coordination framework have been initiated, but their effectiveness has not been unanimously recognized. These include, inter-alia, attempts to set up thematic coordination groups, initiated in 2005 under the leadership of the European Union. Nevertheless, practical coordination arrangements are carried out in the form of exchange of information and consultations between various development partners involved in similar sectors/operations.

1.3.2. In the transport sub-sector, until the end of the Tenth Economic and Social Development Plan (2002-2006), Bank interventions focused on modernisation of rail infrastructure and improvement/strengthening of the classified road network. Interventions by other financial partners were spread over transport sector reform programmes (mainly in road, rail and maritime transport services), road improvement works in major towns and on highways (EIB, JICA), feeder roads and filling of gaps in the regional road network (AFESD). Under the Eleventh Plan (2007-2011), given the tangible positive outcomes achieved in implementing previous projects to rehabilitate and maintain the classified road

network, the Bank has now positioned itself as a major player in road infrastructure financing. Thus, its interventions have been extended to the Roads Improvement Programme, the Feeder Roads Improvement Programme (improvement of 760 km of feeder roads[1]) and extension of the Highways Network Programme.

1.3.3. In contrast, donor harmonisation is very advanced when it comes to co-financing. Budget supports (PAC III and PAI) represent a unique case of a successfully-led programme fully harmonised with two other co-financiers, the World Bank and the European Union. These budget supports are based on matrices of common measures, common disbursement conditions and joint missions reflecting concerted positions. Similarly, the PISEAU II project is another example of successful donor coordination, since the procurement procedures were harmonised throughout the project cycle with two other co-financiers, the World Bank and AFD. Similarly, ADB and AMU signed a Memorandum of Understanding in 2000 to establish a cooperation framework and instrument between the two institutions, and to promote activities geared towards economic integration and development of AMU member states, particularly in the area of basic infrastructure.

Table 1.1 *- Road Sub-Sector Financing Breakdown by Donor*

Sector		***Size***					
		in % of GDP	***in % of Exports***		***in % of Manpower***		
		2010	**2010**		**2010**		
Transport Sector		14%	-		17%		
Sector Players – Annual Public Expenditures of the Road/Highway Sub-Sector in Tunisia (average in TND million)							
				Donors			
Years	*Currency*	***Total***	*Gov.*	*ADB*	*EIB*	*AFESD*	*JICA*
2002 – 2006	*in TND million*	**659.2**	162.4	212.2	155.5	91.2	37.9
	in %	**100%**	24.6%	32.2%	23.6%	13.8%	5.7%
2007-2010	*in TND million*	**1584.1**	525.8	747.3	131.5	126.5	53.01
	in %	**100%**	33.2%	47.2%	8.3%	8%	3.3%
Level of Donor Coordination in Tunisia							
Existence of Thematic Working Groups							No
Existence of a comprehensive sector programme							Yes
ADB involvement in Donor coordination							-

II. PROJECT DESCRIPTION

2.1. Project Objectives and Components

Project Objectives

2.1.1. The project's objectives are to improve the overall functioning and efficiency of the national transport system, in support to the growth in domestic and international trade, and strengthen regional and economic integration. More specifically, the project is intended to facilitate the movement of goods and persons between Gabes and the Tunisia-Libya border, and improve access to the major development centres located in the South-East region of the country.

Project Components

[1] Component included in Road Project VI – approved in September 2010

2.1.2. To achieve these objectives, project activities have been grouped into the components summarised in the table below.

***Table** 2.1- Project Components*

Component	Estimated Cost (EUR Million)	Description of Sub-Components
A. Gabes-Medenine – Ras Jedir highway construction works	397.04 7.89	A.1. Construction of a 2x2 lanes highway over 195.020 km, including the widening of RN1 into a 2x2 lanes carriageway over 18.7km long, and the toll stations. A.2. Works control and supervision.
B. Installation of toll facilities	24.93 2.18	B.1. Facilities buildings construction, procurement and installation of necessary equipment for toll stations; B.2. Works control and supervision.
C. Release of project right-of-way	22.74	Acquisition of land and buildings.
Grand Total	**454.78**	

2.1.3. The Gabes-Ras Jedir link is part of Highway A1, which currently links the capital Tunis to Sfax, and is expected to extend to Ras Jedir (Libyan border). Construction is ongoing on the Sfax-Gabes section, under co-financing by the Tunisian Government/STA and EIB.

2.2. Technical Solution Retained and Alternatives Explored

2.2.1 Engineering designs have been reviewed to confirm the viability of the works from a technical, economic and environmental perspective using international highway design standards and best practices. For standard sections of the highway, the cross-sectional profile includes: (i) two 7-m carriageways; (ii) two 3-m-wide emergency lanes; (iii) two 1-m left flush shoulders; and (iv) a 10-m median strip between the left flush shoulders. To restore the existing road links that would have been cut off by the envisaged highway, six interchanges and sixty-four bridges have been planned, meaning that on average, access to existing links will be established every 2.1 km along the entire stretch.

2.2.2 The pavement structure is comprised of: (i) a road surface in bituminous gravel; (ii) a base layer in bituminous gravel; (iii) a sub-base layer in graded wet cement-treated base (CTB); and (iv) a foundation layer in untreated gravel, with the emergency lanes paved with a double-layer surface coating. The alternative technical solutions explored and reasons for their rejection are presented in the table below.

Table 2.2 - Alternative Solutions Considered and Reasons for Rejection

Alternative Solution	Brief Description	Reason for Rejection
Solution N°1: Layout: 2x3 lanes highway with two 11-meters wide lanes and two 3-meters emergency lanes.	This solution comprises 2 additional lanes	Traffic studies have shown that the level of service and overall capacity offered by this design is well above the actual traffic demand level. Its economic profitability is thus low while its cost would be higher.
Solution N°2: Pavement design: i) Road surface in bituminous gravel, ii) A base layer in bituminous gravel, and iii) A sub-base layer in graded wet CTB	This solution comprises a double layer in bituminous gravel.	This solution has a relatively low economic profitability while its construction cost would be higher.
Solution N°3: Pavement design: i) Road surface in bituminous gravel, ii) A base layer in bituminous gravel, and iii) A sub-base layer in graded wet CTB iv) A foundation layer in alluvial gravel.	This solution comprises a foundation layer made up of alluvial gravel from river beds.	This solution is believed to have had a major environmental impact on the surrounding flora due to the use of the alluvial gravel.

2.3. Project Type

The financing instrument retained for this project is a '*Project loan*' which is viewed as the most appropriate for financing the Tunisia Highways Corporation (STA)'s investment programme.

2.4. Project Cost Estimates and Financing Arrangements

Project Cost by Component

2.4.1 The total project cost, including provision for physical contingencies and price escalation, excluding taxes, is estimated at TND 847.46 million, equivalent to UA 382.02 million or EUR 454.78 million. The cost of the Medenine-Ras Jedir section, co-financed by the Bank and the Tunisian Government/STA, is estimated at TND 381.36 million, equivalent to UA 171.91 million or EUR 204.65 million. These costs were established on the basis of detailed engineering design studies prepared in May 2009 and on average unit cost of similar works contracts being implemented on the Sfax-Gabes section. Physical contingencies were estimated at an average of 6.5% of the base cost of civil engineering works. Price escalation was estimated at an average of 5.4%, based on the works implementation schedule. The total project costs by component, excluding taxes is summarised in Tables 2.3 and 2.4 below:

***Table 2.3** - Summary of Total Project Cost by Component*

Components	TND Million			EUR Million			UA Million		
	F.E.	L.C.	Total	F.E.	L.C.	Total	F.E.	L.C.	Total
A. Highway construction works	**426,47**	**246,30**	**672,78**	**228,86**	**132,18**	**361,04**	**192,24**	**111,03**	**303,27**
A.1. Works	*417,32*	*242,34*	*659,66*	*223,95*	*130,05*	*354,00*	*188,12*	*109,24*	*297,36*
A.2. Works control and supervision	*9,15*	*3,96*	*13,11*	*4,91*	*2,13*	*7,04*	*4,13*	*1,79*	*5,91*
B. Installation of toll facilities	**28,47**	**16,57**	**45,04**	**15,28**	**8,89**	**24,17**	**12,83**	**7,47**	**20,30**
B.1. Installation of facilities	*25,83*	*15,59*	*41,42*	*13,86*	*8,37*	*22,23*	*11,64*	*7,03*	*18,67*
B.2. Monitoring and supervision	*2,65*	*0,98*	*3,62*	*1,42*	*0,53*	*1,95*	*1,19*	*0,44*	*1,63*
C. Release of right-of-way	**-**	**42,37**	**42,37**	**-**	**22,74**	**22,74**	**-**	**19,10**	**19,10**
Base Costs	**454,95**	**305,24**	**760,19**	**244,14**	**163,81**	**407,95**	**205,08**	**137,60**	**342,68**
Physical contingencies	29,06	*16,70*	*45,76*	*15,60*	*8,96*	*24,56*	*13,10*	*7,53*	*20,63*
Price escalation	26,22	*15,28*	*41,51*	*14,07*	*8,20*	*22,27*	*11,82*	*6,89*	*18,71*
Grand Total	**510.23**	**337.23**	**847.46**	**273.81**	**180.97**	**454.78**	**230.00**	**152.01**	**382.02**

***Table 2.4** - Summary of Project Cost by Component Co-Financed by the ADB Loan*

Components	TND Million			EUR Million			UA Million		
	F.E.	L.C.	Total	F.E.	L.C.	Total	F.E.	L.C.	Total
A. Highway construction works	**213,50**	**90,23**	**303,72**	**114,57**	**48,42**	**162,99**	**96,24**	**40,67**	**136,91**
A.1. Works	*207,81*	*88,80*	*296,61*	*111,52*	*47,66*	*159,17*	*93,67*	*40,03*	*133,71*
A.2. Works control and supervision	*5,69*	*1,42*	*7,11*	*3,05*	*0,76*	*3,82*	*2,57*	*0,64*	*3,21*
D. Installation of toll booth facilities	**14,80**	**6,55**	**21,36**	**7,94**	**3,52**	**11,46**	**6,67**	**2,95**	**9,63**
B.3. Installation of facilities	*12,82*	*6,06*	*18,87*	*6,88*	*3,25*	*10,13*	*5,78*	*2,73*	*8,51*
B.4. Monitoring and supervision	*1,99*	*0,50*	*2,48*	*1,07*	*0,27*	*1,33*	*0,90*	*0,22*	*1,12*
E. Release of right-of-way	**0,00**	**16,95**	**16,95**	**0,00**	**9,10**	**9,10**	**0,00**	**7,64**	**7,64**
Base Cost	**228,31**	**113,72**	**342,03**	**122,52**	**61,03**	**183,55**	**102,92**	**51,26**	**154,18**
Physical contingencies	14,88	*6,31*	*21,19*	*7,98*	*3,38*	*11,37*	*6,71*	*2,84*	*9,55*
Price escalation	12,74	*5,40*	*18,14*	*6,84*	*2,90*	*9,73*	*5,74*	*2,43*	*8,18*
Grand Total	**255.92**	**125.43**	**381.36**	**137.34**	**67.31**	**204.65**	**115.37**	**56.54**	**171.91**

Sources of Financing

2.4.2 The project is being financed concurrently by the ADB and JICA. The ADB loan, totalling EUR 137.34 million, represents 30.20% of the total project cost, excluding VAT, and 67% of the components co-financed by the Bank and the Tunisian Government/STA.

2.4.3 The ADB loan covers the full foreign exchange cost of the Medenine-Ras Jedir section. Specifically, the Bank financing covers, for this highway section:

(i) 70% of the cost, excluding VAT, of works (except fences and the connection of toll stations to networks);
(ii) 70% of the cost, excluding VAT, for the supply and installation of the toll booth equipment;
(iii) 80% of the cost, excluding VAT, for works control and supervision services, and toll facilities.

2.4.4 The EUR 136.47 million JICA loan, already approved by the Japanese Government and representing 30.01% of the total project cost, excluding VAT, is intended to finance part of the works and works monitoring and supervision of the Gabes-Medenine section.

2.4.5 The contribution of the Tunisian Government/STA, amounting to EUR 180.97 million, represents 39.79 % of the total project cost, excluding VAT. The Government will

cover part of the cost of: (i) construction works along the entire highway as well as toll equipment; (ii) services for works control and supervision; and (iii) the full cost of releasing the project right-of-way.

2.5. Project Target Area and Beneficiaries

Project Area

2.5.1 The proposed highway is part of a larger programme (the Trans-Maghreb Highway), which is intended to link Tunis to Tripoli, making it a multinational initiative. Since this corridor also involves the Sfax, Mahdia, Monastir, Sousse, Nabeul and Tunis Governorates, all of them already connected to the highway, it is worth noting that the extended project impact area covers a population of over 5 million inhabitants out of a national total of 10.4 million (2009 figures).

2.5.2 The project's direct impact (PIA) area spans the governorates of Gabes, Medenine and Tataouine. It covers a surface area of 55,222 km², or 34.05% of the country's total area (162 155 km²). However, this PIA has only 26 "*délégations*" and 22 "*communes*" out of a total of 264 *délégations* and 2,073 *communes* nationwide. The project's area of direct impact lies in the south-east of Tunisia, and includes cities such as Ben Gardane, Tataouine, Medenine, and Zarzis. In 2009, the population of this PIA was estimated at 957,400 inhabitants and is characterized by: (i) low density (18 inhabitants/km^2 against a national average of 66.3 inhabitants/km^2), with sharp disparities depending on the governorate; (ii) a predominantly urbanised population (71.1% compared to a national average of 64.9%); (iii) a predominance of adults; and (iv) a male ratio below the national average (48.7% of men). Indeed, the project impact area has recorded an increasingly higher number of women since the decade before 2004, and this trend is growing.

2.5.3 The governorates of Tunisia's southern regions have historically recorded slower socio-economic growth than the coastal areas of the Sahel region. These governorates have the highest unemployment rates in the country, averaging about 18% against 15% nationally. The unemployment rate in Tataouine is 18.2%, while it is 15.3% in Medenine and 19.8% in Gabes. The unemployed are mostly women and young graduates. Increasing unemployment has been pushing the vulnerable to leave their districts of origin and settle in the cities of Gabes and Medenine, in search of better economic prospects. The most unemployment-prone individuals are those that have a primary level education (41.6%), followed by those that have a secondary level education (29.9%), and illiterate individuals (2.4%). These figures are expected to be revised upwards for two main reasons in light of the rapidly evolving socio-political situation in the region: (i) the number of layoffs in the private sector following the economic downturn, estimated in January 2011 to 10,000 lost jobs and which could reach 80,000, and (ii) the flow of Tunisian workers repatriated from Libya, estimated today at close to 30,000 people and which could also approach 80,000. Hence the emergency program developed by the Transitional Government prioritizing the creation of jobs and the development of other forms of social inclusion initiatives.

2.5.4 The active population of the project's direct impact area is employed primarily in the service sector (trade and hospitality) in the Medenine Governorate; the industrial and public works sector in the Gabes Governorate; and agro-pastoral activities in the Tataouine Governorate. Although unevenly distributed, services constitute the main sector of activity. In Tataouine, this sector employs 29.1% of the working population, 29.6% in Gabes and 46.5% in Medenine, while the national average for the country is 30.1%. The tourism infrastructure of the project's direct impact area is mainly concentrated in the Medenine Governorate, which has 137 of the 163 hotels listed in 2009 in the South-East region.

2.5.5 The project is expected to help improve the rate of infrastructure provision and unlock some of the most remote areas of the region. It will also buttress the integrated rural

development programmes and improve livelihoods with expected spill-over effects from agro-pastoral, industrial, tourism, handicraft and other activities. The project will have a positive effect on population mobility in the project's direct impact area, thanks to the improved security and safety as well as travel time savings. This increased mobility will benefit all segments of the population in the project's direct impact area, particularly by facilitating access to health, education and government facilities, and by fostering the development of tourism, inter-regional and international trade.

2.6. Participatory Approach to Project Identification, Design and Implementation

2.6.1 The participatory approach procedure is mandatory for development projects, and is the responsibility of the Ministry of Transport and Infrastructure. The procedure starts from the project design stage until the final delivery of works. In accordance with Tunisian regulations, public consultations were held in the presence of all project stakeholders including technical agencies, economic operators, socio-professional groups, local population, administrative authorities of the Governorates and *délégations* and peoples' representatives (called "Omdas").

2.6.2 The people consulted expressed their acceptance and desire to see the proposed project be implemented. The discussions allowed them to become involved beyond mere information gathering. It enabled them to express, among others, their expectations with regard to compensation. Various media were used to properly inform those affected by the project, including broadcasting of radio announcements on the holding of public information sessions at Governorate Offices (this came in the wake of public information broadcasts).

2.6.3 The project appraisal team has also had consultations and discussions with JICA, as the principal co-financier in this project. The participatory approach shall also be used during the project implementation phase, particularly during coordination meetings to which all stakeholders involved are expected to attend.

2.7. Reflecting the Bank Group Experience and Lessons Learned into Project Design

2.7.1 Since the start of its operations in Tunisia in 1968, the Bank Group has approved 110 operations accounting for a cumulative net commitment level of UA 3,966 million. In the transport sector, the Bank has financed, to date, 18 operations for a total UA 940 million and disbursed UA 608 million. Twelve of these projects have been completed and closed, and their completion reports prepared, four are ongoing while two were approved recently. The current portfolio contains 22 operations, including Economic and Sector Work, for net commitments of approximately UA 866.81 million. The 2008 portfolio review showed a well-performing and improving portfolio. With an overall score of 2.7 points on a scale of 3 in 2008, compared to 2.53 in 2006, the portfolio performance is highly satisfactory and considered among the best performers in the Bank.

2.7.2 In the road sub-sector, the Bank has already contributed to the financing of six projects. Three of those are completed, two (the 4th and 5th) are ongoing, with approval dates of 2005 and 2008, and completion rates of 95% and 50%, respectively. The latest project has been approved in December 2010 and tendering for works is ongoing. The implementation of these various previous Bank operations in Tunisia has highlighted issues that could be improved, among which delays in disbursement and the issuing of no-objection for procuring works or services, raised mainly by the authorities. For new projects, one possible solution has been to plan for the post-review of contracts awarded following national competitive bidding.

2.7.3 Furthermore, following the hike in the prices of inputs (bitumen, fuel, steel, etc.) recorded between 2006 and 2007, the Classified Road Network Project Phase III experienced implementation delays following the cancellation of several contracts or contractors' withdrawal from bid participation. To mitigate the negative impact on the implementation of the two ensuing projects, and at the request of the Executing Agency, the Bank agreed to exceptionally modify the standard specifications by introducing a price adjustment clause for all contracts awarded on the basis of international competitive bidding and for which the implementation period exceeded 12 months (instead of 18 months). This modification led to: (i) reducing speculation on prices offered by contractors; (ii) sparing the contractors from bearing unforeseen additional costs resulting from input price hikes that are beyond their control; and (iii) reducing the number of contracts cancelled and improving project implementation.

2.8. Key Performance Indicators

2.8.1. The performance indicators identified and the expected outcomes at project completion are shown in the results-based logical framework. The major outcomes indicators are: (i) reduced travel time; (ii) reduced VOC; (iii) reduced road accidents and mortality levels; (iv) increased number of economic poles accessible by highway. For the expected medium- and long-term impact, the key performance indicator is Tunisia's domestic and international trade volumes and touristic activity.

2.8.2. In terms of the immediate project impact, the relevant indicators shall be collected by the STA, which has proven experience and equipment in gathering and analyzing such data. With regards to data on the outcomes and impact, the services of the National Guard and the National Observatory for Road Safety shall be sought for the collection and analysis of all information related to road safety and accidents, while others will be verified through statistical data collected at the National Institute of Statistics (INS) and the Ministry of Transport and Infrastructure (MTE).

III. PROJECT FEASIBILITY

3.1. Economic and Financial Performance

Economic Performance

3.1.1 The economic analysis is based on the cost-benefit method, which assesses the different gains derived, on the one hand, from the savings on vehicle operating costs and from the gains in travel time and safety, and on the other, the construction costs of the highway and the routine and periodic maintenance costs differential between the baseline situation and the "with-project" situation. The economic analysis period is 20 years (from 2015 to 2035) from the commissioning year of the highway.

3.1.2 The cost factors involved in investment expenditure and the benefits triggered by the project are: (i) investment and maintenance costs corresponding essentially to the cost of construction of the highway, the acquisition of land and buildings as well as the road and outbuildings maintenance costs; (ii) the project benefits, which are defined in terms of savings on vehicle operating costs, travel time, and safety gains for the community.

3.1.3 The Vehicle Operating Cost (VOC) was grouped into two categories of vehicles – Light Vehicles (LV) and Heavy Duty Vehicles (HDV). They were calculated using three cost categories: (i) variable costs in relation to speed; (ii) variable costs in relation to the condition of the carriageway; and (iii) fixed costs (insurance plus vehicle tax). The variable costs associated with mileage, hence directly linked to speed and traffic conditions are the cost of fuel consumption, depreciation and interest on capital invested, labour costs for commercial vehicles and overheads. The variable costs associated to the condition of the carriageway are

the cost of tires, maintenance, repairs and lubricant. The average VOC per kilometre used, for LVs and HDVs, are TND 0.309 and TND 1.096, respectively.

3.1.4 Calculation of the investment cost, at 2010 prices, yields an Internal Rate of Return (IRR) of 24.8% for the entire project. A sensitivity test conducted by simultaneously increasing the investment cost by 10% and reducing project benefits by 10% (worst case scenario) gives an Economic Internal Rate of Return (EIRR) of 22.7% for the entire project. From the foregoing, it is therefore clear that the level of construction works retained for the Gabes–Medenine–Ras Jedir Highway is economically justified.

***Table 3.1.4** - Economic Analysis Summary*

Economic Analysis Indicator	Value
Net Present Value (NPV) in TND	2.204 billion
Economic Rate of Return (ERR)	24.8%
ERR Sensitivity (10% increase in costs and benefits and 10% decrease in benefits)	22.7%
Discount Rate	12%
Residual value of investment after 20 years for highway sections	30%

Financial Performance

Retrospective Financial Analysis

3.1.5 The retrospective financial analysis of STA is based on the 2006-2009 Audit Reports issued by independent auditors. Over this period, STA experienced fairly strong growth in its activities, stemming from increased traffic on the entire highway network and the commissioning of the Tunis-Medjez-Oued Ezzarga section in 2009. The gross operating surplus fell from year to year to reach TND 6 million in 2009 compared to TND 10 million in 2005, representing 18% of turnover in 2009 instead of 38% in 2005. The net income, which stood at TND 0.9 million in 2005 also dropped to TND -14 million in 2009. This can be considered normal because of the heavy investment programme underway that has led to increased amortization expenses that virtually doubled between 2008 and 2009 (TND 6.6 million to TND 12.4 million), and interest on loans contracted that also doubled between 2008 and 2009 (TND 3.2 million to TND 7.1 million). An analysis of the balance sheets for the same period shows a balanced structure. The rapid increase in the registered capital of the STA (capital + capital advances), which more than doubled during the period (TND 256 million in 2005 to TND 630 million in 2009), reflects the continued support of the Tunisian Government to this Corporation. The said increase resulted in a drop in the debt/equity ratio from 130% in 2007 to 63% in 2009.

Analysis of Financial Projections

3.1.6 STA's net income should improve in 2010 and become positive in 2011 and 2012, due to the removal of the Highway A1 operating fee as from 2011 and the investment of cash surpluses generated from Government's payment of its contribution to the financing of ongoing projects. However, STA's net income is expected to be negative as from 2013, peaking at TND -75 million in 2015. The situation should improve starting in 2016 as the new highway sections commissioned gradually become fully operational, allowing the Corporation to generate a positive net income as of 2022. Its cash flow should also improve significantly as from 2013 to over TND 53 million, reaching over TND 107 million in 2020.

3.1.7 Overall, STA's financial position should improve steadily as the heavy investments made start generating more profit. The financial charges will be gradually offset by the largely positive and growing operating surplus from the increased traffic activity. During this development phase, STA can count on support from the Government, its main shareholder,

which will intervene through the counterpart funds and the guarantee that the State provides for loans contracted by the Corporation.

3.1.8 Currently, the global average tariffs applied on the Tunisian highway network are 0.025 TND/km/LV and 0.053 TND/km/HDV which have not changed since 2003, when it increased by 15%. From 2013 to 2019, a 15% increase every 3 years is due to be applied, lowering to 10% every 3 years after 2020 to take inflation into account. Considering the traffic projections, the average revenue per vehicle should increase from 2.3 TND in 2011 to 3.11 TND in 2020.

Analysis of Project Financial Performance

3.1.9 The period of analysis used is 20 years, from the scheduled commissioning year of the highway (2015). The lifespan of the road is 35 years, corresponding to the duration of the concession granted to STA. This period is justified based on past experience in other countries, mainly Morocco, where it was found that with routine maintenance (which is the case for structures already operated by STA), the state of the highway infrastructure remains quite satisfactory even after several decades.

3.1.10 The reference tariff used is the one in effect in 2015. Operating costs include personnel costs and maintenance costs calculated on the basis of costs incurred for similar sections. Expenditure for major repair works is estimated every eight years based on the operating history of STA. The growth rate for salaries and maintenance costs is estimated at 3% yearly. The value used corresponds to the present value of cash flow generated up to the end of the concession period.

3.1.11 The Financial Internal Rate of Return (FIRR) is the baseline indicator used to assess the project's financial performance. Considering the investment cost at current prices and the revenue generated by the project (toll and concession proceeds), and assuming a real discount rate of 4%, the Net Present Value amounts to TND 200 million. The discount rate is calculated based on the average cost of capital of STA. The FIRR obtained is 5.84%. This rate can be considered normal for an infrastructure project. Given that the Economic Rate of Return indicated above is 24.8%, the project can be considered economically and financially viable.

Table 3.2 - *Financial Analysis Summary*

Financial Analysis Indicator	Value
Net Present Value (FNPV) in TND	200 million
Financial Rate of Return (FIRR)	5.84%
Discount Rate	4,00%

3.2. Environmental and Social Impact

3.2.1 The project is classified as a Category 1 on account of estate (undeveloped land, agricultural and pastoral) on the section Medenine - Ras Jedir and its location near the coastal lagoons with important flora and fauna. The synthesis of environmental and social analysis of the project are based on documents submitted by the MTE, namely: (i) the complete ESIA, prepared in 2010, which incorporates an ESMP; (ii) the Environmental Compliance Certificate; and (iii) the Resettlement and Compensation Plan to relieve project-affected persons, published on the Bank's website on November 26th, 2010

Environment

3.2.2 The main negative environmental effects include: (i) road closures; (ii) risk of making archaeological discoveries; (iii) site nuisance, production of waste, risk of pollution; and (iv) noise nuisance and pollution. The relevant measures for mitigating the negative impacts are considered adequate and included in both the project design documents and

contractors' specifications. These measures notably include prospective excavations, in case of chance discoveries, and incorporation of principles of sound environmental practices as regards organisation of works, and installation and equipping of living quarters. The project will also generate positive environmental effects since it will allow for air quality improvement (nitric oxide emissions will be cut by 4 at commissioning of the highway, and by 10, after 20 years of operation, by comparison to a 'without project' situation), and reduction in the noise from traffic using the existing road through urban areas.

Climate Change

3.2.3 The completion of the highway will lead to increased greenhouse gases emissions, including more than 10,000 tons of carbon dioxide (CO_2) emitted over 20 years of operation. However, by eliminating the effect of traffic congestion on the existing route, this quantity will remain much lower than in the "without project" scenario where more than 384,000 tonnes of CO_2 emissions are expected to be released over the same period of time. In addition, the project design incorporates measures to mitigate climate change factors (planting of windbreaks of nearly 1,600 ha along the project to contribute to the absorption of CO_2 emissions and prevent wind erosion). In addition, the project is well adapted to the increased hydraulic risk associated with variability and climate change through: (i) its favorable altimetry positioning which protects the project from any risk of flooding resulting from rising sea levels, (ii) the proper design of hydraulic structures using international best practices (flood return period of a hundred years for bridges and culverts and twenty years for wastewater structures), and (iii) taking into account lessons learned from past extreme events (historical floods of 1969, 1973, 1979, etc.). Additional measures will be implemented with respect to: (iv) the instability of the wadi beds characterizing arid areas (additional works to alleviate flooding in the event of the load on the highway embankment beyond the apparent bed); (v) the silting of drainage works (instructions to the STA to ensure routine maintenance).

Gender

3.2.4 Tunisia has made great efforts to enshrine the principles of gender equality in all aspects of society. The promotion of women's role is one of the essential components of its social model. Tunisia has 18,000 women entrepreneurs and 1,500 women managers of agricultural holdings. The proportion of women in the workforce has risen from 24.3% in 2005 to 28.7% in 2010, and is targeted to reach 32% in 2016. The project will neither affect the family structure of the local population, nor disrupt the distribution of roles within the family, in which women are key players in this part of the country. The expected improved access and travel time savings will bring improvements to domestic chores and cultural activities, as well as to other sectors such as textile, tourism, craft and agriculture. At the construction stage, most jobs created will likely be filled by men (90%), given the nature of the work offered by the road construction sector, while those created at the operational stage can absorb more women (between 60 to 70%), generally more amenable to taking up jobs at toll stations, service areas (catering trade and services) and the administration.

Social

3.2.5 Development of the highway will facilitate travel on the route linking the Libyan border and Gabes, and will have a positive social impact, including: (i) unlocking a large swathe of rural areas, resulting in a marked improvement in accessibility to socio-economic amenities and various centres of activity; (ii) creating new opportunities in many sectors of the economy, particularly developing agriculture by improving the marketing of agricultural and agro-pastoral products (Governorates of Gabes and Medenine) and revitalising industrial areas (Gabes); (iii) establishing export processing and free trade zones in the country (Zarzis

Port near Medenine and Abu Kammash at the Libyan border, near Ras Jedir); and (iv) diversifying tourism sources and interests by promoting eco-tourism (Sidi Touil and Jebil national parks) and Sahara-based tourism (Djerba, Kebili), thus promoting local art and craft.

3.2.6 Furthermore, the project implementation will lead to the creation of many direct jobs during the construction (close to 2,000) and operational phases (160), adding to those already created by previous projects financed by the Bank or future ones, thus contributing to reducing the unemployment rate in the PIA. Additionally, the project is believed to be able to induce the creation of as many as 30,000 new jobs over the medium term in the tourism sector alone.

Involuntary Resettlement

3.2.7 A total of 846 private owners and a total area of 883 ha of land will be affected by the proposed project on the Medenine–Ras Jedir section. These land expropriations will be carried out without displacing people (who at most will have to move back about 100 metres from the boundary of the right-of-way). Furthermore, although the operation affects three small irrigation schemes south of Ben Guerdane that were initially spared, the project only passes along the boundaries of these schemes and reduces the irrigated area by only 5%. The schemes will continue to function and land lost would be compensated (through an extension) after the commissioning of the highway section. The Resettlement and Compensation Plan (RCP) on the Medenine-Ras Jedir section has been prepared.

3.2.8 As regards the expropriation of property on the highway's right-of-way, the consultative framework is based on Law No. 2003-26 of 14 April 2003 revising the legislation on expropriation for public utility. The detailed census of persons affected by the expropriations has been fully conducted. Thus, following the public meeting held on 23 September 2010 at the Medenine Governorate Office, the land valuations are currently being finalised by the MTE. One of the key steps in this process is conducting surveys by a commission comprised of the Ministry of Government Lands (MDE), MTE, and the Ministry of Agriculture. MDE will then open the final public hearings conducted by the Recognition and Conciliation Commissions (CRC) (established by Act 2003-26), which are chaired by a judge. The closure of these hearings will set in motion the final stage of compensation for property expropriated. Aspects relating to temporary occupancy or lease of land will follow the same process until the final acceptance of works.

3.3. Road Safety

3.3.1 To ensure the safety of road users and residents along the project, measures have been taken or are planned for the design and operation of the highway. They cover accident prevention as well as emergency care for victims of traffic accidents. In this regard, in addition to the use of international standards in the geometric design of the structure, a consulting firm has also been commissioned to conduct an external road safety audit based on the technical study. This audit covered the major aspects of the highway design with a direct impact on road safety, including compliance with design standards (alignment, surfacing, maximum speed limits, sight distances, location and design of highway structures, etc.) as well as road signage and road user services (rest areas, service stations, civil defence, etc.). Furthermore, the works implementation plans to be provided by the contractors should also receive a no-objection approval following an external audit conducted prior to execution.

3.3.2 Similarly, and as is the usual practice on the highway sections currently in operation, STA makes provision for a road safety audit visit of the highway before it is commissioned. Upon its opening, the *Tunisian Road Safety Association* will be entrusted with the task of organising and conducting a major awareness campaign for users, residents and STA employees on good road safety practices. At the operational stage and periodically (or even

specifically), similar awareness campaigns will be organised. The *National Observatory for Road Safety* will intervene to identify accident-prone points and recommend mandatory corrective measures for STA.

3.3.3 In light of the foregoing, the proposed new highway will offer a safer and more reliable transport infrastructure through its unique design and operation features (traffic flow separation, minimization of accident-prone intersections and crossings), which will improve the social cost of road insecurity by reducing the probability of occurrence of traffic events leading up to loss of life, injury, and material damages.

IV. IMPLEMENTATION

4.1. Implementation Arrangements

Executing Agency

4.1.1 *Société Tunisie Autoroutes* (Tunisia Highways Corporation) is the project's Executing Agency. It will use the services of the Central Department of Public Works to conduct all aspects of project management (procurement, contract administration, works monitoring, preparation of progress and management reports, coordination with the Bank, etc.). This department has Major Projects Implementation Units with proven experience in executing the highway sections currently in operation, namely Hammam Lif - Sfax, Tunis-Medjez El Bab-Oued Zarga and Tunis-Bizerte, which is likely to guarantee the successful implementation of this project. In addition, STA will also use consultancy services for assistance missions on technical, geotechnical and topographic monitoring, as well as works supervision.

4.1.2 To manage this project, *Société Tunisie Autoroutes* (Tunisia Highways Corporation) will set up two Project Implementation Units. One will be responsible for executing the works between Medenine and Naffatia, subdivided into two lots, while the other unit will be in charge of the Naffatia-Ras Jedir section, sub-divided into three lots. Each lot will be managed by a team led by a resident engineer and comprising a chief structural engineer, an earthworks engineer, a chief laboratory engineer, nine senior technicians and four surveyors. The Resident Engineer reports to the Head of the Project Implementation Unit.

Arrangements for the Procurement of Goods, Works and Services

4.1.3 All procurement for goods, services and works financed by the Bank loan as part of this project, will be carried out in line with the relevant Bank rules and procedures, using the appropriate Bank standard bidding documents. The procurement capacity of *Société Tunisie Autoroutes* (STA), in general, and its research department, in particular, was assessed during project preparation. This assessment revealed that STA staff are not familiar with the Bank's procurement procedures. The following measures have therefore been proposed to strengthen the procurement capacity of the Project Implementation Unit: (i) plan a special training on the Bank's rules and procedures for STA staff as well as some members of the Internal Procurement Committee (CIM); (ii) recruit temporary staff to assist the current project team; (iii) finalise and implement the STA Procedures Manual; (iv) conduct internal audit; (v) use national procedures for NCB consistent with the special arrangements detailed in Annex 4 of this report, and (vi) formalize the existing partnership with the Directorate General of Highways (DGPC) of the MTE which has extensive experience in working with the Bank rules and procedures.

4.1.4 Arrangements for various procurements and related cost estimates are summarised in the table of Technical Annex 4. The procurement methods selected are :

(a) International competitive bidding for (i) civil engineering works, divided into five (5) lots, for the construction of the highway link and toll stations; (ii) the lot for the supply and installation of toll equipment and roadside emergency telephones;

(b) National competitive bidding for works divided into the following lots: (i) electrical installations and public lighting; (ii) metal awnings for the toll stations; (iii) service buildings and maintenance facilities; and (iv) landscaping. Given the relatively small size of those contracts (0.95 million MUA, 0.57 MUA, 1.34 MUA, and 0.38 MUA respectively), the participation of international bidders is rather unlikely, hence the decision to use NCB for those specific works contracts. Furthermore, works of the same size and nature have previously been undertaken successfully by a significant number of well-qualified local firms, allowing for a decent level of competition to occur.

(c) Shortlisting of specialised consulting firms for the technical, geotechnical and topographic monitoring and supervision of works implementation and installation of toll facilities.

Disbursement

4.1.5 The project shall be disbursed based on the list of expenditure categories of project services and works. Disbursements will be made according to the procedures set forth in the Bank's Disbursement Manual. To maintain a satisfactory pace of works implementation, disbursements will be made on a special account held in a commercial bank acceptable to the Bank. This account will be replenished on the basis of estimated expenditure over a maximum of six months, to be justified in conformity with Bank procedures governing the use and operation of special and revolving funds.

Financial Management and Audit

4.1.6 Generally, the public finance management arrangements are those used in the administrative and financial management and accounting of Bank-funded public sector investment projects in Tunisia - in this case, for the continuous monitoring and control of Industrial and Commercial Public Enterprises (EPIC) such as the Tunisia Highways Corporation (STA). This Corporation possesses experience in managing financial resources provided by Technical and Financial Development Partners such as AFESD, EIB and JICA. It has two Central Directorates both with administrative management, financial and accounts departments. It also has monitoring and control structures. These management, monitoring and control departments are adequately staffed and operate under satisfactory working conditions.

4.1.7 STA has an annual programme of activities with a budget. However, budget monitoring and control is reportedly inadequate. Its bank accounts are in a local commercial bank, but consolidation of their periodic balances for positive net cash position remains of constant concern. The accounting software in place does not fully meet the project's information requirements, particularly in terms of monitoring the financial implementation of project components and expenditure categories. The detailed works verification and validation circuit is reliable, thanks to checks put in place within the technical implementation, administrative, financial and management control services. However, the process has not yet been formalised. Two auditors conduct the financial audit of the Corporation.

4.1.8 Measures should be taken by the Administrative and Financial Affairs Department of the Public Works Directorate to ensure satisfactory project financial management such as:

(i) Update and configure of the accounting software and provide training to the STA personnel in Bank rules and procedures;

(ii) Keep project accounts to allow the identification and tracking of expenditure by project component, category and source of financing, and draw up interim and annual financial statements;

(iii) Prepare a manual of administrative, financial and accounting procedures to clearly define the responsibilities of each party involved in project implementation; the procedures manual also include the general accounting, budgeting and analytical plans, and the accounting method adopted;

(iv) Configure the software will allow for keeping financial accounting in a manner that would produce regular and timely financial statements, and administrative management reports;

(v) Prepare an annual programme of activities with a dedicated budget to enable the budgetary management of project resources; the programme of activities will be used in preparing annual estimates of expenditure by component and by expenditure category; the schedule of activities it contains will also be used for planning project cash management;

(vi) Open a special account will be opened at the Central Bank;

(vii) Ensure that the Internal Audit Directorate verifies the proper functioning of budget monitoring and control, among others;

(viii) Ensure that external auditing of the project is conducted by auditors based on the Bank's Terms of Reference for financial auditing.

4.1.9 In view of the significant level of overall fiduciary risk, the project will undergo two on-site supervisions per year. This frequency and the overall project fiduciary risk coupled with the risk of poor controls will be reviewed immediately after effectiveness. Supervision missions should focus on checking that the entire system remains operational throughout the project life. They should include site visits, off-site reviews and capacity-building of accounting and finance personnel of the various project management organs.

4.2. Monitoring/Evaluation of Project Activities

4.2.1 The outline of the project implementation schedule takes into account the relevant experience of the Executing Agency in managing works implementation deadlines and that of the Bank in processing previous similar projects. According to the estimates, project activities will start upon approval of the loan scheduled in June 2011 and completion towards end March 2015. The loan closing date is scheduled for 31 December 2016. At the level of the Bank, the activities planned following loan approval will be closely monitored, in accordance with the schedule in Table 4.1 below. It shall be noted that this schedule is tentative and may need to be adjusted depending on arrangements made for ratification by the Transitional Government and/or the new government, once the elections of the Assembly are held.

4.2.2 Apart from the schedule for monitoring activities, the Executing Agency will regularly provide the Bank with half-yearly project progress reports, including the status of implementation of the environmental and social action plans, in the Bank's standard format and covering all project activities. Such reports will include physical, financial, social and environmental indicators on the basis of which it will be possible to verify the achievement of expected project outcomes. Additionally, project monitoring/evaluation will be carried out by the Bank's supervision missions, in accordance with the Bank's Operations Manual.

Table 4.1 - *Monitoring & Evaluation Schedule*

Period	Milestones	Monitoring Activities/Feedback Loop
Q2 2011	General Procurement Notice	Publication of procurement notice in UNDB
Q4 2011	Project launching mission	Back-to-Office-Report
Q1 2012	Works and services tendering	Procurement Plan and Progress Report
Q2 2012	Start of works and supervision services	Back-to-Office-Report and Progress Report
Q4 2012	20% completion rate	Supervision mission BTOR and Progress Report
Q4 2013	70% completion rate	Supervision mission BTOR and Progress Report
Q1 2015	100% completion rate	Supervision mission BTOR and Progress Report
Q1 2016	End of the guarantee period	Supervision mission BTOR and Progress Report
Q1 2016	Project completion	Project Completion report

4.3. Governance

4.3.1 Nonetheless, the World Bank Country Financial Accountability Assessment (CFAA), in which the Bank also participated, indicates that Tunisia's public finance system is governed by a highly developed and well implemented legal and regulatory framework. Since 2005, the government has launched budgeting by objectives in three pilot ministries – Education, Health and Agriculture. In the same vein, the PEFA Report of March 2010 highlights the sound management of Tunisia's overall public finance, but draws the attention of the Government and Technical and Financial Development Partners to the scope and timing of forensic audits, and the lack of parliamentary sessions for review of the Audit Bench report. Financial information also remains a source of concern due to the non-functional and heterogenous budget classification, the lack of expenditure commitments in the interim budget execution reports and the non-inclusion of State assets and liabilities in the annual financial statements.

4.3.2 In 2010, Tunisia ranked 59th out of 178 countries, according to Transparency International's Corruption Index, with a score of 4.3, on a scale of 0 to 10. According to the World Bank's governance index, the corruption control index was 57.5 compared to an average of 48.3 for the MENA region. The public resource control system is organised into administrative, judicial and parliamentary controls. In terms of the quality of public administration and accountability, Tunisia scores higher than the average for the Middle East and North Africa Region. However, the UNDP's Programme on Governance in the Arab Region, POGAR, highlights areas needing improvement, such as the quality of regulation (price control, constraints to external trade and business development) and accountability. The establishment of efficient and transparent democratic institutions following the current transition period should substantially improve governance and, therefore, the quality of the dialogue between the country and development partners.

4.3.3 The STA is a company of mixed economy with the majority of its capital owned by the Tunisian State. It is administered by a Board of Directors (CA), composed of eleven members and has two State representatives. The company is subject to external control provided by two auditors, hired by the Prime Ministry, and internal controls provided by the audit, inspection, management control, planning, and its Internal Procurement Commission.

4.4. Sustainability

Recurrent Costs

4.4.1 The project's recurrent costs mainly consist of maintenance and operational costs following the commissioning of the highway. Thus, in accordance with the maintenance and operational tasks included and implemented in the programme of the Operations and Maintenance Department of the Tunisia Highways Corporation, and based on the maintenance strategy adopted, the routine maintenance expenditure for the entire 188.520 km stretch of highway to be developed is estimated at about TND 1,000,000 annually. Each year, the Central Directorate of Operations and Maintenance prepares a maintenance program that takes into account simple operations such as clearing of water and sanitation structures, renewal of road markings, and repairs of minor damages found on the road surface, green spaces, partial replacement of selected equipment and lighting etc. Periodic maintenance will consist in strengthening the pavement by resurfacing with bituminous concrete, every eight years, and the re-gravelling and resurfacing of the emergency shoulders with double-layer coating. The cost of the periodic maintenance is estimated at TND 55,000,000, every eight years. The periodic maintenance is considered an investment, and is recorded in the DGPC's budget as such.

Project Sustainability

4.4.2 Project sustainability largely depends on the quality of works and the operation and maintenance of the highway. Immediately following the highway's commissioning, maintenance of the project highway will be incorporated into the programme of STA's Central Directorate of Operations and Maintenance, and will be conducted in accordance with best practices and the maintenance strategy outlined in paragraph 4.4.1. The estimated average annual total cost for routine maintenance induced by this project, as obtained in paragraph 4.4.1, represents 8.6% of the estimated budget amount earmarked for maintenance for 2015. This figure is below the annual maintenance budget growth rate of 10% recorded in the last five years (2005-2009). In addition, the analysis of the project financial performance was conducted on the premise that STA provides its own funds to finance routine maintenance, without recourse to supplementary subsidies from the Tunisian Government. Furthermore, the pavement structure selected is in accordance with the required technical standards. This solution appears adequate to ensure a normal lifespan, in light of projected traffic and the topographic and climatic conditions. Additionally, arrangements made for the control, supervision and monitoring of works implementation will ensure that they are of acceptable quality. Finally, in order to further ensure the physical preservation of the infrastructure, a weighing system is planned to be installed to check the axle loads of heavy duty vehicles. All these arrangements augur well for the sustainability of the investments to be made.

4.5. Risk Management

4.5.1 The recent socio-political events that rocked the country between December 2010 and January 2011 have abruptly and rather unpredictably disrupted the country's stability and questioned the numerous socio-economic achievements for which Tunisia had until now been recognized and praised. After a few days of political and judicial void, leading to a temporary slowdown in economic and social activity, a Transitional Government of National Unity was formed, and social demands have since receded. The mobilization of the international community in support of Tunisia's Revolution, including development finance institutions, is likely to further promote a serene, peaceful and inclusive democratic transition and an effective implementation of the projects and programmes intended to relieve the social pressures that are at the origin of the Revolution.

4.5.2 Any cause leading to a significant and long-lasting drop in international traffic could represent a risk to the project's viability. The current conflict taking place in Libya could materialize into such a cause since it has already had an adverse impact on the level of traffic between the two countries. Nonetheless, the ongoing conflict in Libya is considered to be temporary in nature and is likely to improve well before 2015, the commissioning date of the highway. Furthermore, the traffic generated by Libya represents only 6.6% of the total traffic expected to be transferred from the RN1 to the new highway.

4.5.3 Another risk that could possibly affect the project's efficient and timely implementation is any potential delay in clearing the project right-of-way. To this end, during preparation of the project detailed designs, parcel enquiries were conducted to identify plots and buildings located within the right-of-way. A detailed census of persons affected by the expropriations has been conducted and the process of determining the actual cost of such assets is well under way. Nonetheless, the estimated cost of acquiring land and buildings has already been budgeted and the funds required released by the Government. These arrangements will contribute to minimising the risk of delays in works implementation. It is worth noting that similar arrangements had been applied successfully by the DGPC in previous projects which were verified by the Bank during their implementation. The DGPC is also responsible for planning and implementing the clearance of the project's right-of-way.

4.5.4 Lastly, given the persistent relative volatility of the global economy, a hike in the prices of inputs (bitumen, fuel, steel, etc.) is possible, as experienced between 2006 and 2007 during implementation of Phase III of the Classified Road Network Improvement Project. This situation resulted in project implementation slippages stemming from the termination of several contracts or contractors withdrawing from bid participation. To mitigate the negative impact of this risk, a provision for price adjustment amounting to EUR 22.27 million (or 5.4% of the base cost plus mass variation), has been included in the total project cost.

Table 4.2 - *Risk Matrix*

Risk	Probability of occurrence	Mitigation measure
Sociopolitical instability leading to economic downturn.	High	- Increased credibility of the Transition Government lessening social demands. - Financial, technical, and political support of development partners (IFIs, NGOs, etc.).
Significant and long-lasting drop in traffic generated by Libya	Average	- Current situation in Libya considered temporary - Libya-generated traffic relatively low (6.6% of total) compared to total traffic expected on highway.
Delay in clearing the required right of way.	Average	- Compensation process started off early in the preliminary design phase. - Compensation of project-affected people as a condition of loan approval.
Inputs price hike (construction materials, labor, etc.).	Very high	- Costs computed on the basis of unit prices recently used on similar projects. - Financial provision budgeted to take into account price fluctuations.

4.6. Knowledge Building

4.6.1 Key knowledge and lessons learnt collected throughout project implementation shall be kept in a database managed by STA. This data will facilitate management and dissemination of all knowledge accumulated on, outcomes, main results and lessons learned from this project. Summaries shall be published on the STA, MTE and Bank websites.

V. LEGAL FRAMEWORK

5.1 Legal Instrument

The proposed financial instrument is a loan to be granted to *Société Tunisie Autoroutes* under the guarantee of the Government of Tunisia, for use in financing the project described in this report. The loan maturity will be twenty years, with a five-year grace period, and a floating interest.

5.2 Conditions Associated with the Bank's Intervention

A. *Conditions Precedent to Loan Effectiveness*

Effectiveness of the Loan Agreement shall be subject to the Borrower's fulfilment of the conditions set out in Section 12.0.1 of the General Conditions Applicable to Loan Agreements and Guarantee Agreements.

B. *Other Conditions*

Other loan conditions include ensuring, prior to works start-up, effective and appropriate compensation for the clearing of the project right-of-way, in conformity with the resettlement and compensation plan.

5.3 Compliance with Bank Policies

This project complies with all applicable Bank Group policies.

VI. RECOMMENDATION

Management recommends that the Board of Directors approve the proposed loan of EUR 137.34 million to *Société Tunisie Autoroutes*, under guarantee of the Tunisian Government, for the purposes and subject to the conditions stipulated in this report.

I. COMPARATIVE SOCIO-ECONOMIC INDICATORS OF TUNISIA

	Year	Tunisia	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 km²)		164	80 976	80 976	54 658
Total Population (million)	2009	10.3	1 008	5 629	1 069
Urban Population (% of Total)	2009	66.9	39.6	44.8	77.7
Population Density (per km²)	2009	62.8	3.3	66.6	23.1
GNI per Capita (US $)	2008	3 290	1 428	2 780	39 688
Labour Force Participation - Total (%)	2009	37.1	41.2	45.6	54.6
Labour Force Participation - Female (%)	2009	27.2	41.2	39.8	43.3
Gender -Related Development Index Value	2005	0.750	0.525	0.694	0.911
Human Develop. Index (Rank among 182 countries)	2007	98	0.514	n.a	n.a.
Popl. Living Below $ 1 a Day (% of Population)	2006	…	50.8	25.0	…
Demographic Indicators					
Population Growth Rate - Total (%)	2009	1.0	2.3	1.3	0.7
Population Growth Rate - Urban (%)	2009	1.6	3.4	2.4	1.0
Population < 15 years (%)	2009	23.2	56.0	29.2	17.7
Population >= 65 years (%)	2009	6.7	4.5	6.0	15.3
Dependency Ratio (%)	2009	42.8	78.0	52.8	49.O
Sex Ratio (per 100 female)	2009	101.2	100.7	934.9	948.3
Female Population 15-49 years (% of total population)	2009	28.8	48.5	53.3	47.2
Life Expectancy at Birth - Total (years)	2009	74.2	55.7	66.9	79.8
Life Expectancy at Birth - Female (years)	2009	76.3	56.8	68.9	82.7
Crude Birth Rate (per 1,000)	2009	16.1	35.4	21.5	12.0
Crude Death Rate (per 1,000)	2009	5.9	12.2	8.2	8.3
Infant Mortality Rate (per 1,000)	2009	19.0	80.0	49.9	5.8
Child Mortality Rate (per 1,000)	2009	21.3	83.9	51.4	6.3
Total Fertility Rate (per woman)	2009	1.8	4.5	2.7	1.8
Maternal Mortality Rate (per 100,000)	2007	41.0	683.0	440.0	10.0
Women Using Contraception (%)	2006	60.2		61.0	75.0
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2006	99.7	42.9	78.0	287.0
Nurses (per 100,000 people)*	2006	301.6	120.4	98.0	782.0
Births attended by Trained Health Personnel (%)	2006	…	50.5	63.4	99.3
Access to Safe Water (% of Population)	2006	94.0	64.0	84.0	99.6
Access to Health Services (% of Population)	2006	…	61.7	80.0	100.0
Access to Sanitation (% of Population)	2006	85.0	38.5	54.6	99.8
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2007	0.1	4.5	1.3	0.3
Incidence of Tuberculosis (per 100,000)	2007	26.0	313.7	161.9	14.1
Child Immunisation against Tuberculosis (%)	2007	99.0	83.0	89.0	99.0
Child Immunisation against Measles (%)	2007	98.0	74.0	81.7	92.6
Underweight Children (% of children under 5 years)	2003	1.0	25.6	27.0	0.1
Daily Calorie Supply per Capita	2005	3 264	2 324	2 675	3 285
Public Expenditure on Health (as % of GDP)	2006	2.3	5.5	4.0	6.9
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2007	107.6	100.2	106.8	101.5
Primary School - Female	2007	106.1	91.7	104.6	101.2
Secondary School - Total	2007	90.2	35.1	62.3	100.3
Secondary School - Female	2006	91.1	30.5	60.7	100.0
Primary School Female Teaching Staff (% of Total)	2007	53.1	47.5	…	…
Adult Illiteracy Rate - Total (%)	2007	22.3	59.4	19.0	…
Adult Illiteracy Rate - Male (%)	2007	13.6	69.8	13.4	…
Adult Illiteracy Rate - Female (%)	2007	31.0	57.4	24.4	…
Percentage of GDP Spent on Education	2006	7.1	4.5		5.4
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2007	17.7	6.0	9.9	11.6
Annual Rate of Deforestation (%)	2006	…	0.7	0.4	-0.2
Annual Rate of Reforestation (%)	2006	…	10.9	…	…
Per Capita CO2 Emissions (metric tons)	2008	2.2	1.1	1.9	12.3

Sources : ADB Statistics Department Databases; World Bank: World Development Indicators;
UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports.
Note: n.a.: Not Applicable; …: Data Not Available.

II. TABLE OF BANK GROUP PORTFOLIO IN TUNISIA

(Amounts in UA million, as at 30 April 2011)

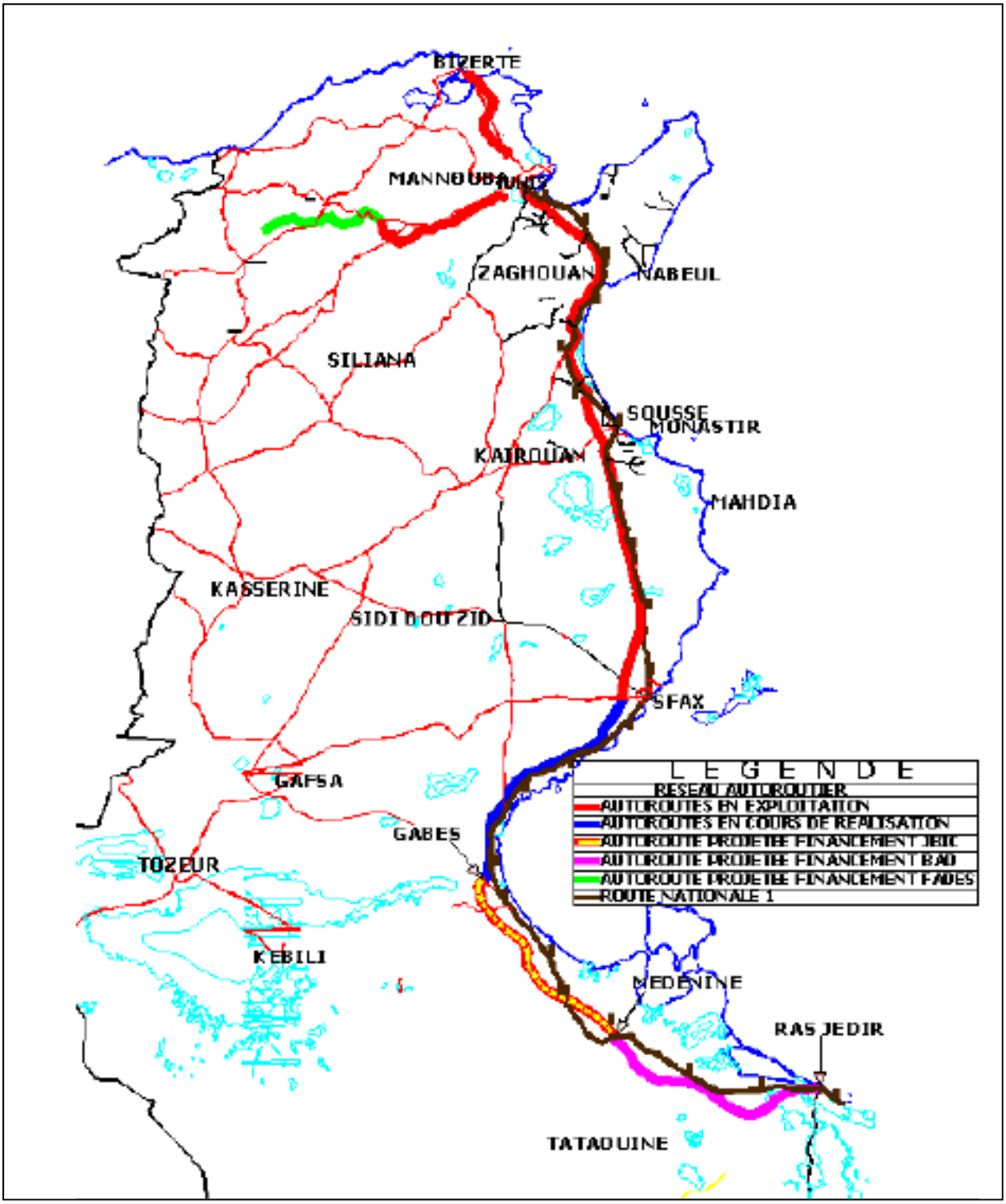
PROJECTS	Amounts Approved	Disbursements (UA million)	Disbursements (%)
	ADB	ADB	ADB
I - AGRICULTURE			
Kairouan PDAI	15.68	7.99	50.96%
PISEAU II	20.06	3.29	16.38%
Sub-Total I (2 projects)	**35.74**	**11.28**	**32%**
II - TRANSPORT			
Classified Road Network Rehab. Project IV	144.48	144.48	100%
Railway Modernisation II	65.18	46.08	70.70%
Road Programme V	152.64	65.67	43.02%
ENFIDHA Airport (OPSM)	59.48	59.48	100%
Road Project VI	206.64	0.00	0.00%
Sub-Total III (5 projects)	**628.42**	**315.71**	**50%**
IV - INFRASTRUCTURE			
Electricity Distribution Networks Rehabilitation VI	67.55	62.75	92.90%
Hasdrubal Gas Project (OPSM)	95.24	95.24	100%
Electricity Distribution Network Rehabilitation VII	41.65	4.88	11.72%
Sub-Total IV (3 projects)	**204.44**	**162.88**	**80%**
VI - SOCIAL			
Secondary Education Support Project	49.43	32.75	66.25%
Sous Total VI(1 projet)	**49.43**	**32.75**	**66%**
VII – ECONOMIC REFORMS			
PAI	160.4	160.40	100%
Sub-Total VII (1 project)	**160.4**	**160.40**	**100%**
GRAND TOTAL (12 projects)	**1078.43**	**683.01**	**63%**

STUDIES	Total Grants	Disbursements (UA Million)	Disbursements (%)
	ADB	ADB	ADB
I. AGRICULTURE			
- Agricultural Cooperatives Strengthening Support Programme	0.59	0	0
Sub-Total I (1 study)	**0.59**	**0**	**0**
II. INFRASTRUCTURE			
- Improvement of Drinking Water Supply to Bizerte and Beja	0.46	0	0
- Desalination of Seawater in ZARAAT	0.62	0	0
- North and East Greater Tunis Flood Protection Study	0.58	0	0
- Sanitation of 80 Communes of 10,000 inhab. & 6 Communes of +10,000 inhab.	0.58	0	0
- National Water Information System (SINEAU)	1.73	0	0
Sub-Total II (5 studies)	**3.97**	**0**	**0**
III. SOCIAL			
- Emerging and Re-emerging Diseases	0.58	0	0
- Health Services Export Strategy Development Study	0.53	0	0
- Strategic Study on the Development of Cultural Industries	0.27	0	0
Sub-Total III (3 studies)	**1.38**	**0**	**0**
IV. ECONOMY			
- Support to the Institute of Competitiveness and Quantitative Studies	0.2	0.1	50%
- Performance Eval. Of BTS-Managed Micro-Credit System	0.14	0	0
Sub-Total IV (2 studies)	**0.34**	**0.1**	**29%**
V. GRAND TOTAL (11 studies and capacity building)	**6.28**	**0.1**	**1.59%**

III. KEY RELATED PROJECTS FINANCED BY THE BANK AND OTHER DONORS IN TUNISIA

Loan	Project	Date of Signing	Effectiveness	Loan Amount	% Disbursed	Project Cost	Project Components
ADB VI	Road Project VI	15/11/2010	Not stated	EUR 236 million	0%	EUR 336 million	Strengthening/rehabilitation of the classified network – 23 governorates (863 km) Construction of 12 engineering structures Improvement of feeder roads – 23 governorates (760 km)
ADB V: 2000130002980	Road Project V	22/10/2008	11/05/2009	EUR 174.33 million	63.10%	TND 549 million	Developmental road works - 7 governorates Classified roads rehabilitation works - (374 km) Classified roads strengthening works (640 km) Construction of 14 engineering structures
ADB IV: 2000130000731	Classified Roads Network Rehabilitation Project - Phase IV	22/03/2006	20/09/2006	EUR 165 million	100%	TND 434 million	Classified roads network rehabilitation (1256 km)
EIB V: 24.694/TN	Priority Roads Project V	27/11/2008	19/10/2009	EUR 110 million	EUR 220 million		Seven road projects in Greater Tunis Five developmental road projects in major cities
EIB IV: 22.877/TN	Priority Roads Project IV	07/06/2004	15/01/2005	EUR 40 million	EUR 80.2 million		Eight road projects in Greater Tunis Four developmental road projects in major cities Improvement of feeder roads – 11 governorates (537 km)
							Improvement of feeder roads - 13 governorates (470 km)
AFESD	Oued Zarga-Bousalem Highway Project	05/09/2011	-	TND 190 million	TND 430 million		Construction of 70 Km of highway, all components included
EIB	Sfax-Gabes Highway Project	11/12/2009	Not stated	EUR 234 million	TND 817 million		Construction of 155 km of highway, all components included

IV. MAP OF PROJECT AREA



I. RESUME DU COUT DU TRONCON MEDENINE-RAS JEDIR PAR COMPOSANTES ET PAR SOURCE DE FINANCEMENT

TRONCON MEDENINE - RAS JEDIR

Composantes	Montant en millions d'EUR						Total
	BAD			Gouv de la Tunisie			
	Devises	ML	Total	Devises	ML	Total	
A. Travaux de construction de la section autoroutière	**115,05**	-	**115,05**	-	**48,55**	**48,55**	**163,60**
A.1. Travaux	*111,99*	-	*111,99*	-	*47,78*	*47,78*	*159,78*
A.2. Contrôle et surveillance des travaux	*3,05*	-	*3,05*	-	*0,76*	*0,76*	*3,82*
B. Installations de mise à péage	**7,47**	-	**7,47**	-	**3,39**	**3,39**	**10,86**
B.1. Equipements de péage et bornes téléphoniques	*2,38*	-	*2,38*	-	*1,02*	*1,02*	*3,40*
B.2. Installation électrique et éclairage public	*1,32*	-	*1,32*	-	*0,57*	*0,57*	*1,89*
B.3. Auvents métalliques	*0,79*	-	*0,79*	-	*0,34*	*0,34*	*1,13*
B.4. Bâtiments d'exploitation et centres d'entretien	*1,85*	-	*1,85*	-	*0,79*	*0,79*	*2,65*
B.5. Clôtures	-	-	-	-	*0,21*	*0,21*	*0,21*
B.6. Raccordements extérieurs des gares (électricité, eau, gaz et téléphone)	-	-	-	-	*0,09*	*0,09*	*0,09*
B.7. Aménagement paysager	*0,53*	-	*0,53*	-	*0,23*	*0,23*	*0,76*
B.9. Contrôle et surveillance	*0,58*	-	*0,58*	-	*0,15*	*0,15*	*0,73*
C. Libération d'emprise	-	-	-	-	**9,10**	**9,10**	**9,10**
Coût de base	**122,52**	**0,00**	**122,52**	**0,00**	**61,03**	**61,03**	**183,55**
Imprévus physiques	*7,98*	-	*7,98*	-	*3,38*	*3,38*	*11,37*
Aléas financiers	*6,84*	-	*6,84*	-	*2,90*	*2,90*	*9,73*
Total	**137,34**	**0,00**	**137,34**	**0,00**	**67,31**	**67,31**	**204,65**

II. RESUME DU COUT DU TRONCON MEDENINE-RAS JEDIR PAR CATEGORIES ET PAR SOURCE DE FINANCEMENT

TRONCON MEDENINE - RAS JEDIR

Catégories	Montant en millions d'EUR						Total
	BAD			Gouv de la Tunisie			
	Devises	ML	Total	Devises	ML	Total	
1 - Travaux	**116,50**	-	**116,50**	-	**50,01**	**50,01**	**166,50**
1.1. Construction de la section autoroutière	111,99	-	111,99	-	47,78	47,78	159,78
1.2. Installation électrique et éclairage public	1,32	-	1,32	-	0,57	0,57	1,89
1.3. Auvents métalliques	0,79	-	0,79	-	0,34	0,34	1,13
1.4. Bâtiments d'exploitation et centres d'entretien	1,85	-	1,85	-	0,79	0,79	2,65
1.5. Clôtures	-	-	-	-	0,21	0,21	0,21
1.6. Raccordement extérieurs des gares (électricité, eau, gaz et téléphone)	-	-	-	-	0,09	0,09	0,09
1.7. Aménagement paysager	0,53	-	0,53	-	0,23	0,23	0,76
2 - Services	**3,64**	-	**3,64**	-	**0,91**	**0,91**	**4,55**
2.1. Contrôle et surveillance	3,64	-	3,64	-	0,91	0,91	4,55
3 - Biens	**2,38**	-	**2,38**	-	**10,11**	**10,11**	**12,50**
3.1. Equipements de péage et bornes téléphoniques	2,38	-	2,38	-	1,01	1,01	3,40
3.2. Libération d'emprise	-		-		9,10	9,10	9,10
Coût de base	**122,52**	**0,00**	**122,52**	**0,00**	**61,03**	**61,03**	**183,55**
Imprévus physiques	7,98	-	7,98	-	3,38	3,38	11,37
Aléas financiers	6,84	-	6,84	-	2,90	2,90	9,73
Total	**137,34**	**0,00**	**137,34**	**0,00**	**67,31**	**67,31**	**204,65**

III. ACQUISITIONS DES TRAVAUX BIENS ET SERVICES

Récapitulatif des modes de passation des marchés

Catégories du projet	*En millions d'EUR*					
	AOI	AON	Autre*	Liste restreinte	Non financé par la Banque**	Total
1. Travaux						
1.1 Construction de la section autoroutière	179,11[125,54]					179,11[125,54]
1.2 Installation électrique et éclairage public		2,12[1,48]				2,12[1,48]
1.3 Auvents métalliques		1,27[0,89]				1,27[0,89]
1.4 Bâtiments d'exploitation et centres d'entretien		2,97[2,08]				2,97[2,08]
1.5 Clôtures					0,24	0,24
1.6 Raccordement extérieurs des gares (électricité, eau, gaz et téléphone)					0,10	0,10
1.7 Aménagement paysager		0,85[0,59]				0,85[0,59]
Total partiel 1	**179,11[125,54]**	**7,21[5,04]**			**0,34**	**186,66[130,58]**
2. Biens						
2.1 Equipements de péage et bornes téléphoniques	3,81[2,67]					3,81[2,67]
2.2 Libération d'emprises					9,10	9,10
Total partiel 2	**3,81[2,67]**				**9,10**	**12,91[2,67]**
3. Services						
3.1 Service contrôle et surveillance des travaux du tronçon 1				1,14[0,91]		1,14[0,91]
3.2 Service contrôle et surveillance des travaux du tronçon 2				0,97[0,78]		0,97[0,78]
3.3 Service contrôle géotechnique du tronçon 1				0,91[0,73]		0,91[0,73]
3.4 Service contrôle géotechnique du tronçon 2				0,74[0,59]		0,74[0,59]
3.5 Service contrôle et surveillance des travaux d'installations de mise à péage				0,51[0,43]		0,51[0,43]
3.6 Service contrôle technique				0,81[0,65]		0,81[0,65]
Total partiel 3				**5,08[4,09]**		**5,08[4,09]**
TOTAL	**182,92[128,21]**	**7,21[5,04]**		**5,08[4,09]**	**9,44**	**204,65[137,34]**

Légende

* "Autre" Signifie consultation de fournisseurs, et entente directe.

** "Non financé par la Banque", financé par d'autres sources de financement et acquis selon leurs propres procédures.

[ ] Les chiffres entre crochets [ ] sont les montants financés par le Groupe de la Banque.

♦ Règles, procédures et documents

Compte tenu des divergences existantes entre les procédures nationales et celles de la Banque, il a été retenu que les règles et procédures de la Banque s'appliqueraient. Toutes fois, pour les Appels d'offres Nationaux pour l'acquisition de Biens et Travaux, les parties ont convenu que les procédures nationales ne pourraient être utilisées que si les dispositions contraires aux principes des règles et procédures de la Banque et contenues dans la réglementation nationale sont revues comme suit :

(a) tout soumissionnaire éligible du point de vue des règles de la Banque qui le souhaite doit être autorisé à soumissionner. Aucune restriction à la nationalité du pays de l'emprunteur ne sera applicable à l'origine des fournitures et les soumissionnaires étrangers ne feront pas l'objet d'exigence d'immatriculation ou de catégorisation particulière, de critères d'évaluation spécifiques injustifiées et d'obligation à s'associer avec un soumissionnaire national ;

(b) Les entreprises nationales ne bénéficieront d'aucun traitement préférentiel ;

(c) La participation des entreprises publiques Tunisiennes aux Appels d'offres ne sera possible que si elles peuvent établir : (i) qu'elles jouissent d'une autonomie juridique et financière ; (ii) qu'elles sont gérées selon le droit commercial ; et (iii) qu'elles sont indépendantes de l'entité ayant lancé ledit Appel d'offre ;

(d) Les offres seront soumises à la discrétion des soumissionnaires soit en main propre ou par courrier avant la date limite de dépôt des offres. Les offres techniques et financières doivent être soumises simultanément et ouvertes en même temps le jour du dépôt des offres juste après l'heure limite ;

(e) La séance d'ouverture des offres doit être publique et les montants des propositions lus à haute voix et consignés dans un procès verbal signé. Aucune modification d'offre ni de signature de documents contenues dans l'offre ne sera possible après l'heure limite de dépôt des offres ;

(f) Aucune réserve clairement marquée dans l'offre ne pourra être levée par un soumissionnaire après l'heure limite de dépôt des offres ;

(g) Les offres seront évaluées sur la base du prix et de tout autre critère (nécessairement ramené à des termes monétaires) contenu dans le DAO. Les marchés seront attribués au soumissionnaire qualifié ayant proposé un prix évalué le moins cher. Le prix proposé par l'attributaire ne pourra être négocié étant donné que le prix est un facteur d'évaluation ;

(h) Le Dossier d'Appel d'offres National sera utilisé pour les AON à condition que l'esprit des principes cités ci-dessus soit traduit dans ledit document à la satisfaction de la Banque.

♦ Organe d'exécution

La Direction Centrale des Grands Travaux (DCGT) de la STA, plus spécifiquement son **Service Etudes d'Exécution (SEE)**, aura la responsabilité première de la passation des marchés du projet. La SEE a fait l'objet d'une évaluation de capacités lors de la préparation du projet. Ce service est animé par un Ingénieur qui a la responsabilité du montage et de la finalisation de tous les dossiers d'acquisitions dans le cadre de projets mis en œuvre par la STA. Cet Ingénieur n'a jamais eu l'opportunité de bénéficier d'une formation et/ou d'appliquer par le passé des procédures de passation des marchés de la Banque.

Au terme de l'évaluation des capacités et tenant compte des constats et conclusions principales découlant du diagnostic ci-dessus décrits **le niveau de risque en passation des**

marchés a été jugé élevé. Le plan d'action suivant a été proposé pour réduire les risques identifiés :

Actions proposées	Responsabilité	Délai
• La formation du personnel de la STA (ainsi que certains membres de la CIM) aux procédures de passation des marchés de la Banque.	Banque/STA	Séminaire prévu par ORPF pour les unités d'exécution des projets en Tunisie (jun/juil 11)
• Le Recrutement à titre temporaire de personnel additionnel pour le renforcement du SEE de la DCGT	STA	Année 2011
• La Finalisation du Manuel de procédures de la STA	STA	Année 2011
• Rendre effectif les missions d'audit interne	STA	dès l'Année 2011
• Utiliser les DAO types et les procédures de la Banque	STA	Continue
• Soumettre à une revue préalable de la Banque tous les AOI et les deux premiers AON de travaux	STA	Continue
• Prévoir lors des missions de supervision une revue à postériori systématique de tous les contrats n'ayant pas été soumis à l'avis préalable de la Banque.	Banque	Durant les missions de supervision

♦ Travaux

(i) *les travaux reparti par lot comme suit : construction de bâtiments d'exploitation et centre d'entretien ; d'éclairage public ; construction d'auvent métalliques ; et d'aménagement paysager dont les montants par Appel d'offres sont estimés à moins de* ***7,20 millions d'Euros*** *seront acquis par Appel d'offre National.*

(ii) *les travaux de construction d'autoroute dont le montant de l'Appel d'offres est estimé à* ***179,11 millions d'Euros*** *sera acquis par Appel d'offre International*.

Malgré l'envergure desdits travaux et dû à leur *caractère routinier (construction de routes sans une complexité spécifique), l'Appel d'offres relatif à la construction des travaux autoroutiers ne sera pas précédé par un processus de pré-qualification.*

♦ Biens

Les biens programmés à acquérir dans le cadre du projet sont essentiellement des équipements de péages et bornes téléphoniques pour un montant total estimé à **3,81** ***Millions d'Euros***. *Ces Biens et équipements dont les montants par lot sont estimés supérieurs à 0,75 Millions d'Euros seront acquis par Appel d'offre International*.

♦ Services de consultants

La Banque financera dans le cadre du projet plusieurs contrats de services de consultant relatifs à la surveillance des travaux, au contrôle géotechnique et au contrôle technique pour un montant total estimé à ***5,10 millions d'Euros***. Ces missions seront exécutée par des cabinets de consultants qualifiées, éligibles et retenues suite à un processus basé sur la méthode de sélection basée sur la qualité technique et le coût (SBQC) tel que décrit par les dispositions de la section II des règles et procédures de la Banque.

Compte tenu de sa spécificité, les contrats à prévoir dans le cadre d'une mission de surveillance des travaux devraient être de nature à permettre une facturation au temps passé.

Plan de passation des marchés

Réf	Description du contrat	Montant estimatif (Millions €)	Méthode de passation des marchés	Pré-qualificatio? (O/N)	Préférence Nationale? (O/N)	Revue de la Banque (Prior /Post)	Date prévisionnelle de lancement du processus
1	Travaux de construction de l'autoroute Mednine – Ras Jedir	179,11	AOI (5lots)	N	N	Prior	26 Décembre 2011
2	Travaux d'installation électrique et éclairage public	2,12	AON	N	N	Post*	25 Mars 2014
3	Travaux de construction d'auvents métalliques	1,27	AON	N	N	Post*	24 Février 2014
4	Construction de bâtiments d'exploitation et centres d'entretien	2,97	AON	N	N	Post*	28 Octobre 2013
5	Travaux d'aménagement paysager	0,85	AON	N	N	Post*	25 Avril 2014
6	Mission de Suivi et assistance technique des travaux de construction de l'autoroute Mednine – ras Jedir - tronçon 1	1,14	SBQC	Short list	NA	Prior	21 Octobre 2011
7	Mission de Suivi et assistance technique des travaux de construction de l'autoroute Mednine – ras Jedir - tronçon 2	0,97	SBQC	Short list	NA	Prior	21 Octobre 2011
8	Mission de contrôle qualité des travaux- tronçon 1	0,91	SBQC	Short list	NA	Prior	04 Novembre 2011
9	Mission de contrôle qualité des travaux- tronçon 2	0,74	SBQC	Short list	NA	Prior	04 Novembre 2011
10	Mission d'études, suivi et assistance technique des travaux de mise à péage	0,51	SBQC	Short list	NA	Post	13 Octobre 2012
11	Mission de contrôle technique des travaux	0,81	SBQC	Short list	NA	Prior	20 Novembre 2011
12	Fourniture d'équipements de péages et bornes téléphoniques	3,81	AOI	N	N	Post	31 Janvier 2014

* : sauf s'il s'agit de l'un des deux premiers AON