The World Bank/PPIAF

Study to Assess the Viability and Options for Public Private Participation in the Highway Sector in Kosovo

Final Report

May 2007
The World Bank/PPIAF

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# Acronyms and Abbreviations

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<th>Description</th>
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<tbody>
<tr>
<td>BOT</td>
<td>Build, Operate &amp; Transfer</td>
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<td>DBOF</td>
<td>Design Build Operate Finance</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>EU</td>
<td>European Union</td>
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<td>EAR</td>
<td>European Agency for Reconstruction</td>
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<td>GRD</td>
<td>General Road Directorate (of MTC)</td>
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<td>HDM</td>
<td>Highway Development &amp; Management</td>
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<td>HRD</td>
<td>Human Resources Development</td>
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<td>IRI</td>
<td>International Roughness Index</td>
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<td>IRR</td>
<td>Internal Rate of Return</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IFI</td>
<td>International Financial Institutions</td>
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<td>KCB</td>
<td>Kosovo Consolidated Budget</td>
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<td>KDSP</td>
<td>Kosovo Strategic Development and Planning</td>
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<td>KTA</td>
<td>Kosovo Trust Agency</td>
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<td>LCU</td>
<td>Local Currency Unit</td>
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<td>MoA</td>
<td>Ministry of Agriculture</td>
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<td>MD</td>
<td>Motorway Directorate</td>
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<td>MESP</td>
<td>Ministry of Environment and Spatial Planning</td>
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<td>MFE</td>
<td>Ministry of Finance and Economy</td>
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<td>MoM</td>
<td>Ministry of Mining</td>
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<td>MTC</td>
<td>Ministry of Transport and Communications</td>
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<td>MTI</td>
<td>Ministry of Trade and Industry</td>
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<tr>
<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
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<tr>
<td>NPV</td>
<td>Net Present Value</td>
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<td>OGC</td>
<td>Office of Government and Commerce</td>
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<td>PFU</td>
<td>Private Finance Unit</td>
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<td>PISG</td>
<td>Provisional Institutions of Self-Government</td>
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<tr>
<td>PIP</td>
<td>Public Investment Programme</td>
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<td>POE</td>
<td>Public Owned Enterprise</td>
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<td>PPI</td>
<td>Private Participation Infrastructure</td>
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<td>PPIAF</td>
<td>Public-Private Infrastructure Advisory Facility</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<td>PPPCo</td>
<td>Public-Private Partnership Company</td>
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<td>RID</td>
<td>Road Information Database</td>
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<td>PTK</td>
<td>Post and Telecommunications of Kosovo</td>
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<td>REBIS</td>
<td>Regional Balkans Infrastructure Study</td>
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<tr>
<td>SC</td>
<td>Steering Committee</td>
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<tr>
<td>SCADA</td>
<td>Supervisory Control and Data Acquisition</td>
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<tr>
<td>SEETO</td>
<td>South East Europe Transport Observatory</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SOK</td>
<td>Statistical Office of Kosovo</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<tr>
<td>UNMIK</td>
<td>United Nations Interim Administration in Kosovo</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>VAT</td>
<td>Value Added Tax</td>
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<td>WB</td>
<td>World Bank</td>
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Executive Summary

Introduction
The primary objective of this project has been to assist the MTC at a strategic planning level in assessing the viability of PPP as related to its plans for future developments in the highway sector, to help identify optimum methodologies and locations for injection of private sector money and know-how, and to assist in identifying impediments to such private sector involvement.

This report contains detailed analysis and discussion of various development phasing options, finance plans, organisation structures and policy and procedural guidelines. In addition there is an extensive set of appendices containing relevant reference information.

Kosovo’s priority road network consists of the following routes:

- **Route 6** (M2/M9 corridors): the Prishtinë – Blace (border with FYRO Macedonia) road (approximately 65 km) and the Prishtinë – Airport – Pejë – Montenegro border road (approximately 100 km).

- **Route 7** (M25 corridor): the Vermice (border with Albania) – Prishtinë – Merdare (administrative boundary with Serbia) road (approximately 118 km)
The Two Axes Feasibility Study
The study of the two road corridors (Routes 6 and 7) contained recommendations for the timing of the implementation of road segments (upgrading and/or widening of existing lanes or new road alignment). The recommended timing of the corridor(s) development (road segments) was based on traditional economic and environmental justifications and reflects the sector priorities from an objective perspective.

The study did not find evidence at present that any of the recommended new highway segments on the two corridors would be suitable for toll road systems with financial and technical involvement of the private sector in a possible PPP arrangement.

Present conditions in Kosovo relating to motorway development and PPP arrangements

- Kosovo is presently at a relatively low state of economic development, although growth is looking promising in the short and medium term. Low economic household income and consumption patterns indicate a low willingness to pay for using toll roads in the short term. Tests for traffic impact for low Willingness-to-Pay (WTP) when imposing road toll indicate that the traffic decreases on average by 72%.

- Presently there are uncertainties about the budget allocation intended for motorway development, and the potential for substantive donor support. The Government does not yet appear to have considered revenue or loan guarantees in support of motorway development.

- The Kosovo future status talks have not concluded, which represents a perceived risk for any investor.

- Low traffic volumes on most segments of Routes 6 and 7. The only present location with sufficient traffic volume to make stand-alone toll motorways feasible is in the immediate vicinity of Prishtinë.

- Some elements of the M25/Route 7 motorway design have been completed. Less work has been done on preparing for public processes, obtaining permits or preparing the MTC to administer large scale development projects.

Potential corridor development strategies and PPP applicability
The Consultant has made a review of the highway investment plans in Kosovo and PPP investment plans in the surrounding region, and by the time of this report, the Government of Kosovo had already chosen Route 7 as its highest priority corridor. Considering the optimum locations for private investments within strategic corridors, e.g. where sufficient traffic volume exists near Prishtinë, the Consultant has proposed conceptual finance plans for that corridor.

However, the choice of a proper strategic development plan remains a difficult question. In large part this is due to the uncertainty as to future budgetary allocations to a motorway development programme, and uncertainty as to the political risk profile that might be transferred to a private investor.
PPP arrangements are not a panacea to limited budget finance and the timing of when PPP should be considered in Kosovo depends on a combination of many factors. These include the necessary strengthening of administrative, institutional and legal framework, political status, traffic volume, WTP and consequently an acceptable public view of value of money and adequate private sector attractiveness.

A cautionary view suggests that a PPP in the highway sector in Kosovo is unlikely to take place within the first five to seven years.

Below table highlight the major actions necessary (part of recommendations) before preparation of PPP projects and arrangements can be initiated in Kosovo.

**Necessary Action Prior to preparation of Pilot Project and PPP approach in Kosovo**

- Political status determined
- A fiscal risk analysis is required in relation to corridor development and PPP arrangements
- Establish a PPP policy framework in the highway sector.
- Strengthening of capacities within the MTC and the Road Directorate
- Establishment of central and sector PPP unit(s) to ensure necessary PPP facilitation including elaboration of PPP policies, procedures and guidelines, appraisal of PPP projects
- Strengthening of the legal framework
- Centralised decisions related to the planning, environmental mitigation measures, and permitting and land acquisition aspects of strategic road corridors.
- Detailed traffic surveys and willingness-to-pay studies as well as market sounding need to be carried out before private sector participation can be considered in PPP arrangements

Due to the uncertainties currently surrounding the size and nature of funding that would be available for use in developing new motorways within the Kosovo priority network, the Consultant looked at a range of development strategies linked to various budgetary scenarios. These are summarised below along with proposed PPP arrangements that are found suitable.

i) **Realistic development options** assume longer implementation schedules and recognise that funding may be limited and would come from a combination of public, donor and private sources:

**Option 1:**
Complete staged improvements over time to Routes 6 and 7 where and when traffic volumes warrant. (recommendations from the Two Axes Feasibility Study) and reflects the sector priorities from an objective perspective.

**Option 2:**
Develop an initial Route 7 project near Prishtinë; complete the entire corridor within a 20 year period.

These two development options represent scenarios where finance from budget, donor and private sources is limited and likely to be determined by economic and environmental justification (financial justification from private sector point of view).
Private involvement could be for operation and maintenance as well as financing a small pilot construction project.

The likely PPP arrangement for Option 2 assumes a small financial involvement of the private sector combined with a larger initial public (budgetary or donor support) in the early stages. The PPP arrangement, in particular for Option 2, is referred to as the Asset Transfer Model (ATM) where it is assumed that the public will transfer physical assets (motorway segments) into the concession agreement made with the private sector party.

The indicative return on private investment of the first stage motorway project segment 7-3 to 7-5 is found to be 8.5% after debt service. The indicative financial viability is regarded slightly lower that would normally be accepted by private investors considering various risk factors in this region.

The initial introduction of smaller, pilot, projects with financial and technical involvement of the private sector is a general recommendation made in relation to the setting up of PPP arrangements.

ii) Optimistic development options assuming short implementation schedules and that full or partial donor finance is available:

**Option 3:**
Develop the entire Route 7 corridor over a 10 year period.

**Option 4:**
Develop the entire Route 7 corridor over a 6 year period.

**Option 5:**
Develop the Route 6 corridor from Prishtinë to the Macedonian border plus the entire Route 7 corridor within a 6 year period.

These above option 3, 4 and 5 would call for significant political effort to secure the considerable donor and budget funds required for their development and do not look feasible in the short- to medium-term.

These three development options are not assumed to involve private finance for their planning and construction, and the potential PPP arrangement best suited for these would be private sector operation and maintenance contracts.

Option 3, 4 and 5 are some very aggressive development options and it will take some time for Kosovo to reach this capacity to undertake such large scale development. In the Consultant’s opinion, that still it requires the government to administer several major contracts within the motorway at the same time. No time is allowed to develop the government’s administrative control structure. Additionally, the shortness of the implementation time frame is likely to result in too little attention being paid to the early phase planning, budgeting, environmental and spatial permitting and contract procurement & administration.
Existing policy framework for PPP
Little work has been done to establish a PPP policy framework in the highway sector. The Consultant recognises that there is overlap between providing policy advice, and providing some elements of strategic planning.

Administrative structures in the highway sector
The MTC and GRD have limited capacity due to their very recent establishment and the lack of monies during the last eight years to fund anything beyond the most basic of planning, maintenance and development activities. The Consultant proposes various initiatives to strengthen the administrative and institutional framework within the ministries in Kosovo including the establishment of a centralised PPP unit with the purpose of elaboration of PPP policies, procedures and guidelines, appraisal of PPP projects and contribute to capacity building within ministries that will be involved in PPP arrangements.

Legal Framework
Generally the legislation supporting PPP arrangements in the highway sectors seems quite adequate with only minor adjustments required and recommendations for those are made.

The land expropriation law has been passed by the Assembly but not yet implemented by UNMIK; the land acquisition process has not yet been tested. The acquisition of land for new highway construction will be an important issue for the success of PPP for road network expansions. A particular danger is land price escalation once the public (or other state bodies) becomes aware of government project plans.

Environmental impact assessment law and spatial planning requirements for new highway alignment seems unclear. Multiple governmental permissions appear necessary before ability to purchase. Experience suggests that there is a considerable risk of substantial delays in achieving necessary permits and that MTC will have difficulty controlling costs related to permits, environmental mitigation, and land acquisition.

Land, planning and permits
It is recommended that a team, collectively a “Road Planning Board”, led by MTC is established that includes representatives of each relevant ministry and relevant advisors and/or technical support. This team should be established as soon as possible. The main purpose of this team would be to:

- map out detailed steps necessary to obtain full approval to build new roads on new alignments;
- identify problematic areas and propose solutions;
- to provide centralised decision making related to the planning, environmental mitigation measures, permitting and land acquisition aspects of strategic road corridors.

It is expected to be necessary for the Road Planning Board to have a permanent secretariat to oversee day-to-day business.
Public and private sector interest
It is too early to indicate the level of interest from potential private sector developers, private lenders, toll road operators, multilateral lenders and donors. One Kosovo semi-state agencies have, however, already indicated an interest in participating in financing. There may also be pension funds and similar entities for which investments in infrastructure projects are an attractive proposition. It is proposed that further market sounding shall be conducted soon to better understand the needs of these entities in order to better plan the development of the Kosovo Motorway Programme.

Recommendations
Public Private Participation is a recent introduction in Kosovo and at present stage it is premature to move to PPP transactions and focus in the short term should be on strengthening capacity of the administrative, institutional and legal framework including preparation for land acquisition (see specific recommendations below) to also in support of future PPP arrangements in the highway sector. This would further allow for necessary due diligence including traffic and WTP studies, market sounding, and defined country status, before the Government of Kosovo can move towards PPP projects.

Based on experience from other countries where PPP arrangements are newly established - it is generally recommended to begin with implementation of smaller projects (pilot projects) where financial and technical involvement of the private sector in PPPs is supported by the necessary administrative, institutional and legal arrangements.

Such pilot projects provide a good opportunity to test the suitability of private sector involvement and based on experience and recommendations from other countries involved with PPP, it is normally good learning process allowing political and administrative system to make necessary adjustment to the benefit of further private sector involvement.

Tariff and Revenue Study
The Consultant strongly recommends that the MTC obtain more precise data on the potential traffic revenue that could be expected from the tolling of the Kosovo Motorway Programme. It is recommended that MTC commission an “investment grade” traffic and revenue study of Route 7 in the very near future.

Legal Framework
The Consultant has concluded that the legal framework can support the administration of PPP arrangements, however the Consultant suggests following enhancements:

Law on Roads:
The provision of the Law that allows Municipalities and the MTC to contract with private operators should be clarified.

Law on Construction:
The Construction Law should be clearer with respect to the possibility of foreign persons to carrying out construction or to act as supervising engineers.

*Law on Expropriation:*
Recommended that the time-period for revoking the expropriation decision for Main Roads Concessions/PPPs be extended to 5 years (initiative has already been taken).

**Policy, Administrative and Institutional Framework**
The Consultant recommends considerable institutional strengthening in advance of the commencement of highway development with or without private sector development.

The Consultant has provided detailed recommendations for potential future assistance contracts (see below) to aide the MTC in its preparation to begin corridor development of priority segments.

**PPP strategy**
It is recommended that a succinct PPP policy for the motorway programme be developed, formally adopted, and publicised by the Minister of Transport and Communications prior to the decision to develop the procurement methodology for the initial motorway development package. This policy needs be sufficiently detailed to ensure that the technical and contractual elements needed to allow eventual use of PPP methodologies are placed in the initial motorway development packages whether or not these first packages adopt PPP methods.

*Environmental Suitability and Sustainability*
It is recommended that the MTC immediately begin development of environmental policies and procedures specifically focused on motorway projects, and consult and agree methods for interaction with the MESP.

**Conceptual Coordinated Environmental Consent Procedure**
It is recommended that a working group led by MTC is established that includes representatives of each relevant ministry and relevant advisors and/or technical support. This working group should be established as soon as possible. The main purpose of this team would be to:

- draft detailed steps necessary to obtain full approval to build new roads on new alignments;
- identify problematic areas and propose solutions;

*Independent Review and Approval Structure*
The Consultant recommends that a formal independent review and approval process be established and used on the Kosovo Motorway Programme.

**Economic and Institutional Development**
The Consultant recommends that the Government undertakes an appropriate consultation process, and establishes a policy for maximisation of the economic benefits of the Kosovo Motorway Programme.
Standards and Specifications

The Consultant recommends that the MTC formally adopt an appropriate set of roadway design and construction standards and specifications. These can be based on those already drafted for Kosovo\(^1\) (although they will require some revision and clarification as discussed in Appendix 4 (A4.2)) supplemented by other European standards and codes of practice. All such standards and specifications should be in the Albanian language (with translation into English) and be made available to the public.

Motorway Directorate

There seems to be a general consensus within the MTC and the GRD that development of the proposed motorway projects (whether PPP or traditional) will require establishment of a new organisation focused solely on motorway development somewhere within the MTC structure.

It is recommended that the new body responsible for roads and the GRD should both report directly to the same individual within the MTC. This is prudent to ensure consistency across the entire road system and to avoid wasteful duplication or competition. Hence perhaps this new body could logically be named the “Motorway Directorate” or MD. The MD could be a transitional structure, with a reorganisation or merging of the MD and GRD taking place after the completion of the development of a majority of the Kosovo Motorway Programme.

Corridor Development Options and application of PPP arrangements

Based upon analysis performed to date, it is recommended that:

- both Route 6 (south of Prishtinë) and Route 7 be candidates for future new toll roads;
- **Realistic** initial strategy for development of Route 7 (*if sufficient donor and budget funding is not available*) be along the lines of Options 1 and/or Option 2 of which Option 1 reflects the sector priorities from an objective perspective.

These two development options represent scenarios where limited finance is available and project selection is justified from economic and environmental criteria. Private involvement could be for operation and maintenance as well as financing a small pilot construction project.

PPP arrangement for Option 2 is recommended to be along the Asset Transfer Model methodology requiring considerable budget support.

- conduct additional market sounding (beyond that performed in this report) with potential lenders and developers.
- delay strategic decisions about implementation of PPP methodology until after final status negotiations and establishment of initial donor finance expectations;

\(^1\) (Draft) Highway Standards for Road & Bridge Works (iC consultenten/DDC for UNMIK), July 2004
• put plans for the Third Prishtinë Ring Road on hold until funding plans are more developed.

Fiscal Risk Analysis
The long-term fiscal implications of proposed PPP arrangements needs further analysis to determine the budgetary risk of corridor(s) development. It is recommended that the PISG commence as soon as possible a fiscal risk analysis and management system as initial preparatory steps towards any PPP approach.

Technical Assistance
There is likely to be a considerable need for future technical support to the MTC during the early stages of development of the Kosovo Motorway Programme. In the Consultant’s opinion, items a), f), g) and h) should be funded as a matter of urgency.

The potential assistance needs include:

a) An on-call strategic advisory contract to MTC to assist it in routine strategic issues related to the development of the motorway programme. It should be structured such that it could provide select strategic advice over a sustained period.

b) An investment grade traffic and revenue study in support of eventual tolling and potential toll revenue securitisation should be conducted if it becomes clear that tolling of the motorways may be beneficial.

c) It may be beneficial to provide planning, technical and toll revenue assistance in developing an alternative to the western side of the third Prishtinë ring road that would allow development of the relevant land area without forming a competitive parallel route during periods when toll revenue was being pledged as collateral.

d) A transaction advisor should be provided to support the MTC in the event that it is decided to develop a complex PPP project.

e) Engineer or independent engineer type contracts are likely to be required in support of whichever development options and packages for Route 7 are eventually identified.

f) Assistance in establishing a co-ordinated environmental consents procedure is probably needed as a matter of urgency. The scope of work should be focused on establishment of a detailed procedure for conducting all environmental and public consents required prior to development of a segment of new motorway.

g) Assistance in establishing a major project review process is probably needed as a matter of urgency. It is presumed that such review process is likely to be required by donors or IFIs prior to advancing funds on any major projects.

h) Assistance in adoption of a set of motorway design and construction standards for Kosovo would likely be beneficial, taking account of the specific legal and technical environment of Kosovo.
2 Introduction

2.1 General
On 13 November 2006 COWI A/S signed a contract with the World Bank for a "Study to Assess the Viability and Options for Public Private Participation in the Highway Sector" in Kosovo. The commencement date for the project was defined as 4 December 2006 on which date the initial visit of the consulting team to Kosovo began.

The project was funded by the Public Private Infrastructure Advisory Facility (PPIAF), a multi-donor technical assistance facility, administered by the World Bank, aimed at helping developing countries improve the quality of their infrastructure through private sector involvement. The Ministry of Transport and Communication (MTC) responsible contact person was Mr Gjynejt Mustafa of its General Road Directorate (GRD).

The consultancy assignment has been undertaken by COWI A/S of Denmark in association with Gide Loyrette Nouel of France, and Ideas Engineered Executed Ltd (IEE) of Kosovo.

2.2 Project Background

2.2.1 Introduction
The Kosovo Government Programme for 2004 - 2008 lists infrastructure development as one of the top priorities and intends to undertake all measures to ensure that Kosovo is included within the Pan-European and regional traffic corridors. In this respect, the development of the Vermice - Prishtinë - Merdare corridor, the Prishtinë – Blace (border with Macedonia) road leading to Corridor VIII in Skopje and the M9 Prishtinë – Airport – Pejë – Montenegro Border road leading to Podgorica, are priorities for the administration. The difficulties in financing road infrastructure development in Kosovo have started the initiatives to assess the viability of PPP options in Kosovo for the road and highway sector.

The timing of the project follows closely after that of the "Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo" for MTC, the

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1 http://www.ppiaf.org
Final Report\(^3\) of which was delivered to the client at the end of 2006 - see below section 2.2.2.

### 2.2.2 Conclusions from Two Axes Feasibility Study

This study of the two road corridors (Routes 6 and 7) contained recommendations for the timing of the implementation of road segments (upgrading and/or widening of existing lanes or new road alignment). The recommended timing of the corridor(s) development (road segments) was based on traditional economic and environmental justifications.

The study did not find evidence that any of the recommended new highway segments on the two corridors would be suitable for toll road systems with financial and technical involvement of the private sector in a possible PPP arrangement.

### 2.3 Study Organisation

#### 2.3.1 Consultant

The Consultant's team consisted of; Team Leader and PPP Specialist Jeff Austin, Financial Specialist Peter Mallow, Legal Expert John Crothers, Highway Engineer Iain Wilson, Transport Economist Christian Kingombe, Local Experts Berat Ratkoceri and Xhavit Ratkoceri.

#### 2.3.2 Communication and contact points

During the study period, a number of contacts were made, with full details being set out in Appendix 8. Contacts of particular note included:

- Ministry of Transport and Communication (MTC) and its General Road Directorate (GRD). Several meetings and other communications have taken place.
- Ministry of Finance and Economy (MFE)
- Ministry of Environment and Spatial Planning (MESP)
- World Bank office in Prishtinë.
- USAid – Bearing Point
- Municipality of Prishtinë

The Consultant established contacts within the Client’s organisation and the World Bank Office in Prishtinë.

In accordance with the Terms of Reference (ToR) a Steering Committee (SC) was established for the purposes of informing the project stakeholders about the progress of the project as well as agreeing on conceptual issues along with the

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\(^3\) Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo, (COWI A/S for MTC/UNMIK), December 2006
project implementation. As this project is strategic in nature, and the development of a robust strategy is inherently an iterative process that will involve coordination at high levels within many departments and agencies of the government, the SC has played a key role in over-viewing the project as well as taken the key decisions related to it. The Consultant met with the SC in February and March 2007 to discuss the recommendations of the inception report and at end of March to discuss the progress of the project including focus on private sector involvement as well as legal and institutional issues related to the project.

2.3.3 Information and related projects

Through the contacts with stakeholders, a large amount of data and information has been collected.

The Consultant made several significant findings including other projects related to the PPP project:

a) While the MTC has had little technical assistance recently, a number of new EU and WB technical assistance (TA) projects are apparently being launched in 2007, which may overlap with this project.

Technical assistance projects include:

- Road Information Database and Highway Development and Management System - HDM-4 - software system for investigating choices in investing in road transport infrastructure.\(^4\)
- Assistance to the General Road Directorate including the provision of Traffic Counters.
- Strengthening of financial sustainability of road sector by ECORYS, which started in November 2006 and is regarded as a follow up study of the Roughton Road User Charge study of January 2004. The recently completed ECORYS study focuses on identification of sources of revenue for financing maintenance of roads\(^5\)
- Road Safety Study starting February 2007.
- Urban Traffic Improvement Project dealing with strategic planning for the Municipality of Prishtinë.
- Multi-modal transport planning funded by European Agency for Reconstruction (EAR) over a period of 15 months. To focus on strategic planning with recommendations for roads, public transport and railways. The project started in February 2007.
- Procurement by MTC and Ministry of Health, part of which is towards performance based maintenance.

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b) An overall public sector investment strategy named as the Kosovo Development Strategy and Plan (KDSP) is now being developed. An advance look indicates that the transport sector portion of this plan will be at quite a strategic level and that a more detailed strategy needs to be developed in order to facilitate the necessary initial planning of major strategic road investments. As far as the Consultant can determine, the KDSP places heavy emphasis on the national M25 (REBIS Route 7) corridor and particularly that portion in the vicinity of Prishtinë.

c) Most or all of both urban and regional road maintenance is already being contracted out to the private sector.

d) The land expropriation law has been passed by the Assembly and sent to UNMIK for ratification, but the land acquisition process has not been tested. Additionally the interaction of regulations/laws/procedures for land expropriation, environmental impact assessment and mitigation, spatial planning, mineral rights, agricultural land controls and construction permits appear both: i) to have substantial overlaps, and ii) to be essentially untested in terms of their use in developing long intrusive linear objects such as motorways.

e) MTC has indicated that it wished to hold a Donor Conference: this had been scheduled for the spring but has now been postponed pending conclusion of final status negotiations.

f) Post and Telecommunications of Kosovo (PTK) have indicated interest in participating in the funding of road projects.

2.4 The Objective of the Assignment

The primary objective of this project was to assist the MTC at a strategic planning level in assessing the viability of private sector participation in its plans to upgrade the highway sector, to help identify optimum methodologies and locations for injection of private sector money and know-how, and to assist in identifying impediments to such private sector involvement. The Consultant recognises that, as the Kosovo Highway Development Programme is only now beginning, there is overlap between strategic planning to encourage private sector participation in the highway sector and strategic planning for the highway sector generally.

The project's objective had a number of constituent elements, including:

- a review of the existing policy framework in Kosovo with respect to private participation in the road sector, highlighting any deficiencies and making recommendations for changes;
- a review of the administrative structure for the road sector, focused on identifying recommendations for changes to promote private participation;
- a review of the legislative framework relevant to the introduction of private participation in the road sector, including highlighting inadequacies and making recommendations for changes;
• an assessment of highway sector funding mechanisms, focused on identifying issues related to facilitating increased private sector investment in the highway sector;

• an assessment of institutional arrangements, focused on strengthening governmental abilities to implement and manage PPP road projects;

• identification of two technical assistance tasks necessary to support private sector participation in the road sector that could form the basis for future PPIAF assistance funding; and

• identification of road improvement projects with the greatest potential for private sector participation.

2.5 Content of Final Report

Based upon the approval of the Inception and Interim phases by the World Bank and the Steering Committee and agreement with findings and recommended steps, the Consultant took account of the comments from the Client and beneficiaries and structured the Final Report into the following main tasks:

• Task 1 – assistance in identifying optimum locations and methods for private sector participation in the highway sector.

• Task 2 – assistance in identifying useful improvements in the institutional framework for PPP in the highway sector.

• Task 3 – assistance in publicising the strategic PPP plans in the highway sector.

Each of the three tasks is further broken down into a number of activities. The Consultant has included appendices to the present report with supportive information and specific references on the various issues related to the PPP project.
3 Potential Highway Development Plans and Methods for Utilisation of PPP

3.1 Introduction
This chapter sets out the results of the Consultant’s work on Task 1 – the provision of assistance in identifying optimum locations and methods for private sector participation in the highway sector. This task is set in the context of Kosovo’s priority road network which consists of the following (see Figure 2-1 below):

- **Route 6** (M2-M9 Corridors): the Prishtinë – Blace (border with FYRO Macedonia) road (approximately 65 km) and the Prishtinë – Airport – Pejë – Montenegro border road (approximately 100 km).
- **Route 7** (M25 Corridor): the Vermice (border with Albania) – Prishtinë – Merdare (administrative boundary with Serbia) road (approximately 118 km).

Figure 3-1 Map of the Kosovo priority road network (2005 Kosovo Road Policy)
These routes, established in the 2005 Policy Paper for Multi-Modal Transport prepared by the Government of Kosovo, constitute the main links to the capital cities of neighbouring countries and to the regional transport network in South East Europe and based on the recommendations of the REBIS report and subsequently developed by the South-East Europe Transport Observatory - see section 3.2. At the same time, they connect some of the main cities and economic centres within Kosovo. One of the prime policy objectives stated was to create links to the European transport network and - in line with this - to provide a priority road network linking the transport gateways to the areas of potential economic growth.

The Consultant began by making a review of available data related to highway investment plans in Kosovo, and a review of highway development and PPP investment plans in the surrounding region. These findings are outlined in Section 3.2.

The Consultant was then tasked with developing a strategic plan for a target motorway, considering the optimum locations for private investments within that corridor, and developing a conceptual finance plan for that corridor. By the time of this report, the Government had already chosen Route 7 as its highest priority corridor.

However, the choice of a proper strategic development plan remains a difficult question. In large part this is due to the uncertainty as to future budgetary allocations to a motorway development programme, and uncertainty as to the political risk profile that might be transferred to a private investor. These uncertainties are affected by the Kosovo final status talks, which were on-going throughout this study. In addition, the task of devising a PPP strategy is complicated by the existing low traffic volumes and low level of economic activity in Kosovo. As a result the Consultant looked at a range of development options linked to various budgetary scenarios, and these development options are described in more detail in Section 3.3 below.

Section 3.4 discusses broad organizational, contractual and risk sharing aspects of the broad types of PPP delivery methodology that could be used in conjunction with the development options discussed in Section 3.3.

Section 3.5 deals with the revenue aspects of motorway development generally.

Section 3.6 sets out the Consultant’s conclusions as regards optimum use of PPP in the Kosovo motorway development programme.

Section 3.7 describes the PPP project experience in the region.

Section 3.8 provides a discussion of the various development and PPP options.

Finally, the Consultant was requested to summarise its findings from a brief examination of current GRD practices in routine road maintenance. The pur-

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6 Regional Balkans Infrastructure Study: REBIS transport Joint Venture for EC, July 2003
pose was to pass these findings to a separate donor financed technical study that is commencing shortly, which will focus on incorporation of performance-based contracting methodologies into the already privatised road maintenance contracts in the road sector. These findings are set out in Appendix 5.

3.2 Review of Kosovo and regional motorway development plans

3.2.1 Regional motorway strategy

Improving transport infrastructure in South Eastern Europe and integrating the region with the rest of Europe is important in order to support better quality of life through economic growth, regional integration, social cohesion and adequate environmental conditions. Having a common desire to achieve these goals, the EU and the countries of South Eastern Europe banded together to form the South-East Europe Transport Observatory (SEETO).

Figure 3-2 Core Regional Road Links (SEETO, South-East Europe Core Regional Transport Network Development Plan 2007-2011)

SEETO has now developed a detailed regional transportation improvement plan covering the period from 2007 to 2011. Included in this plan are Routes 6 and 7 through Kosovo. Route 7 begins at the Albanian port of Durres where it connects with Adriatic coastal Routes 1 and 2, and extends inland through Kosovo before connecting with Corridor X in Serbia and the X's extension into Bul-
garia. Route 6 is an inter-connector that connects Corridor VIII in Skopje, proceeds north through Kosovo, and connects in Montenegro with Route 4 (Podgorica – Beograd). The SEETO website\(^7\) contains relevant extracts from the SEETO 2007-2011 development strategy and synopses of relevant PPP projects in the region.

### 3.2.2 Kosovo motorway plan

The Government of Kosovo has established the development of motorway M25/Route 7 as one of its highest investment priorities. This project forms the entire length of SEETO Route 7 within Kosovo, and thus is fully in line with the EU regional transport strategy for South East Europe. The project addresses both the national interest by providing necessary local improvements in the vicinity of the capital of Prishtinë and providing high speed links from Prishtinë to Albania and Corridor X, and it serves the regional interest by building on Albania’s recent and on-going investments in Route 7 and completing another portion of this important east-west corridor though South-Eastern Europe.

Kosovo’s fuel taxes\(^8\) are slightly below but broadly in line with EU minima, and these taxes form the vast majority of road user charges. However these same taxes form a sizable portion of the overall governmental budget. Currently routine maintenance is under-funded and sizeable road development projects are largely outside the means of the budget. Governmental policy does currently appear supportive of ring-fencing a source of future budgetary support for major road development projects.

Following from the “user pays principle”, there appears to be a broad willingness to institute road tolls on new motorway projects, to the extent necessary to ensure the rapid development and proper routine maintenance of the two main highway corridors. A decision to implement tolling is expected to facilitate the eventual use of Public-Private Partnerships (PPP) to increase funding options.

### 3.2.3 Present stage of Kosovo in relation to application of PPP arrangements

The Consultant provides below a brief indication of the present stage of Kosovo in relation to its application of PPP arrangements and involvement of the private sector in financing of road infrastructure and highway development. Following are relevant to the current situation:

- Kosovo is at present at a relatively low stage of economic development although growth is looking promising in the short and medium term.

- Presently there are uncertainties about the budget allocation intended for motorway development along the priority corridors and the potential for substantive donor support. In addition, the Government of Kosovo—

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\(^7\) [http://www.seetoint.org/site/](http://www.seetoint.org/site/)

\(^8\) Ecorys Final Report May 2007 indicated potential revenue source for road maintenance.
ovo does not yet appear to have considered partial or complete revenue or loan guarantees in support of motorway development.

- The present status talks and the uncertainties about the economic and political climate is part of the risk profile that might be transferred to the private sector. The private sector is likely to be unwilling to take unnecessary demand risks at present and wait until both economic and political stability allows and adequate traffic levels may lower the risk profile.

- Low traffic volumes on both Routes 6 and 7, although traffic volumes near Prishtinë are higher and might allow private sector involvement in the first stages of any PPP arrangements.

- Present evidence about economic household income and consumption patterns indicates that there is a low level of affordability and willingness to pay for using toll roads which would have a negative impact on the potential revenue required to ensure sufficient economic viability for private financial involvement in PPP arrangements.

- Some elements of the M25/Route 7 motorway design have been completed, and planning for land acquisition has commenced. Less work has been done on preparing for public processes, obtaining permits or preparing the MTC to administer large scale development projects.

Below table highlight the major actions necessary (part of recommendations) before preparation of PPP projects and arrangements can be initiated in Kosovo.

**Necessary Action Prior to preparation of Pilot Project and PPP approach in Kosovo**

- Political status determined
- A fiscal risk analysis is required in relation to corridor development and PPP arrangements
- Establish a PPP policy framework in the highway sector.
- Strengthening of capacities within the MTC and the Road Directorate
- Establishment of central and sector PPP unit(s) to ensure necessary PPP facilitation including elaboration of PPP policies, procedures and guidelines, appraisal of PPP projects
- Strengthening of the legal framework
- Centralised decisions related to the planning, environmental mitigation measures, and permitting and land acquisition aspects of strategic road corridors.
- Detailed traffic surveys and willingness-to-pay studies as well as market sounding need to be carried out before private sector participation can be considered in PPP arrangements

### 3.2.4 Unsolicited Infrastructure Proposals

Before going into the detailed description of development options and application of PPP arrangements, the following provides a brief description of the experience from effective systems to channel unsolicited proposals into the public
competitive processes, thus providing more transparency, competition and po-
litical legitimacy to private infrastructure development$^9$.

Unsolicited proposals are un-requested (uninvited) by a government and origi-
nate within the private sector. They typically come from companies with ties to a
particular industry, such as developers, suppliers, and financiers, who spend their
own money to develop basic project specifications, and then directly approach
governments in an attempt to get the required official approvals.

The main objective of the government when dealing with unsolicited proposals
should be to maximise competition and transparency in the Private Participa-
tion Infrastructure (PPI) process by taking an unsolicited proposal and trans-
forming it into a competitively tendered solicited proposal.

A major issue is that many unsolicited projects are associated with a lack of
competition and transparency. Much of the controversy stems from govern-
ments granting exclusive development rights to private proponents without a
transparent tendering process. Private proponents commonly argue that they
have intellectual property rights to project concepts, are the only developer in-
terested in the project, or can save the government time and money by sole-
source negotiating project details. Given that unsolicited proposals can repre-
sent an increasing and significant share of overall projects in some countries
and the negative public perceptions they can create, many policy makers have
begun to realise the need for formal systems to better manage them.

More specifically, some private proponents claim that special circumstances
dictate the necessity to sole-source some project proposals. Reasons include:

- a project developer possessing intellectual property rights to key ap-
  proaches or technologies.
- a lack of private sector interest due to the small scale, remote location,
  or political risk of the project.
- organizing a public tender may not be cost efficient for governments
  and/or tenderers.
- the speed of project development would be more rapid through negotia-
  tions, especially in situations of emergency or widespread shortages.

Established time constraints
In many countries, the government specifies the time allotted for certain stages
of the approval and tendering phases to be completed. The PPI laws usually
specify a time limit for preliminary approval for the project, reaching a final-
ised project, putting the project out to public tender, and a closing date for chal-
lengers to submit counter-proposals. Based on experience the overall time allo-
cation for the tendering process it can sometimes take between 1 and 3 years
before all tendering stages are completed.

$^9$ Unsolicited Infrastructure Proposals - Introducing Competition and Transparency, An
Coordinating among Agencies and Ministries
Planning and coordination of major infrastructure projects, such as transporta-
tion projects, fall within the competence of different line ministries and gov-
ernment agencies. In addition, local and state governments will also be in-
volved if the project falls within their jurisdiction. This can be a heavy burden
for proponents of unsolicited proposals if coordination and communication are
lacking between the relevant government's entities.

Effective sector planning
Some concerns have been raised regarding allowing the private sector to pre-
sent proposals in sectors that are part of network infrastructure. In theory, the
private sector’s only concern is making a return on its investment without con-
sideration for the general welfare or overall economic benefit of the country.

The main conclusions drawn from the experiences of several countries are in
practice, that all the main systems have demonstrated that they are effective in
providing more transparency and competition to private infrastructure projects,
and are much better than having no policy at all. However, they are only as
successful as the overall PPI systems and institutions of the country where they
operate. Unsolicited proposal systems are not a substitute for overall PPI gov-
ernance and planning, and other major PPI policy issues must be addressed be-
fore even allowing unsolicited proposals to be considered and implementing
any unsolicited proposal policy.

With regards to the PPP tendering processes that eventually will take place in
Kosovo in relation to the development of the corridors, there are a number of
critical aspects, as mentioned above, that will have influence on both the time-
frame for road and highways development and, consequently, the need for for-
mal systems to better manage projects with private sector involvement.

3.3 Potential detailed development strategies and PPP Applicability

3.3.1 Introduction
PPP arrangements are not a panacea to limited budget finance. When PPP
should be considered in Kosovo will depend on a combination of many factors
including the necessary strengthening of administrative, institutional and legal
framework, political status, traffic volume, WTP and consequently an accept-
able public view of value of money and adequate private sector attractiveness.

A cautionary view suggests that a PPP in the highway sector in Kosovo is unli-
likely to take place within the first five to seven years.

Due to the uncertainties currently surrounding the size and nature of funding
(private, budget or donor) that might be available for use in developing new
motorways within the Kosovo priority network, the Consultant looked at a
range of development strategies linked to various budgetary scenarios.
These are summarised below along with proposed PPP arrangements that are found suitable.

i) **Realistic development options** assume **longer implementation schedules** provided that **finance is limited** and would come from a **combination of public, donor and private sources**:

**Option 1:**
Complete staged improvements over time to Routes 6 and 7 where and when traffic volumes warrant. (recommendations from the Two Axes Feasibility Study).

**Option 2**
Develop an initial Route 7 project near Prishtinë; complete the entire corridor within a 20 year period.

These two development options represent scenarios where finance from budget, donor and private is limited and likely to be determined by economic and environmental justification (financial justification from private sector point of view).

The likely PPP arrangement for these options assumes a small financial involvement of the private sector combined with a larger initial public (budgetary or donor support) in the early stages. The PPP arrangement in particular for Option 2 is referred to as the **Asset Transfer Model (ATM)** where it is assumed that the public will transfer physical assets (motorway segments) into the concession agreement made with the private sector party.

Considering that PPP is a recent introduction to Kosovo and that the administrative, institutional and legal framework needs to be further strengthened to also support future PPP arrangements in the highway sector, smaller projects (Pilot Projects) with financial and technical involvement of the private sector is a general recommendation made in relation to setup of PPP arrangements.

Such pilot projects would provide a good opportunity to test the suitability of private sector involvement and based on experience and recommendations from other countries involved with PPP, it is normally good learning process allowing political and administrative systems to make necessary adjustments to the benefit of further private sector involvement. These options are described in more detail further below in Section 3.3.6 to Section 3.3.2.

ii) **Optimistic development options** assume **short implementation schedules** provided **full or partial donor finance**:

**Option 3:**
Develop the entire Route 7 corridor over a 10 year period.

**Option 4:**
Develop the entire Route 7 corridor over a 6 year period.

**Option 5:**
Develop the Route 6 corridor from Prishtinë to the Macedonian border plus the entire Route 7 corridor within a 6 year period.

These three options would call for significant political effort to secure the considerable donor and budget funds required for their development and do not look feasible in the short- to medium-term.
As these three development options are not assumed to involve private finance for their planning and construction, the potential PPP arrangement best suited for these would be **private sector operation and maintenance contracts.**

**3.3.2 Option 1**

**The Project**

Option 2 is the strategy presented in detail in the Two Axes Study\(^\text{10}\) (see Appendix 1 for synopsis of investment description) which consists of investments on Routes 6 and 7 totalling around € 417 million. These investments are a combination of upgrading existing roads and new construction of 2 and 4-lane motorways, over the next 10 to 20 years.

**Table 3-1 Option 1: Recommended investments for road sections on Route 6 and 7**

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\(^{10}\) Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo, (COWI A/S for MTC/UNMIK), December 2006
Table 3-2  Recommended investment packages for the two routes

<table>
<thead>
<tr>
<th>Recommended intervention</th>
<th>Investment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prishtinë - administrative boundary with Serbia (route 7)</td>
<td>€ 132.8 million</td>
<td>Motorway project should be closely co-ordinated with the Prishtinë ring road project.</td>
</tr>
<tr>
<td>Motorway close to Prishtinë, new 2-lane road between Podujevë and Besi and upgrade of existing road to the administrative boundary with Serbia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prishtinë - Border with Albania (route 7)</td>
<td>€ 133.4 million</td>
<td>Motorway design should be optimised including supplementary interchange at Lipjan</td>
</tr>
<tr>
<td>Motorway between Prishtinë and Shtime and upgrade of existing road for other parts of route</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prishtinë - Border with FYROM (route 6)</td>
<td>€ 97.5 million</td>
<td>-</td>
</tr>
<tr>
<td>New high standard 2-lane road between Prishtinë and Doganaj, and upgraded existing road to border</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prishtinë - Border with Montenegro (route 6)</td>
<td>€ 53.2 million</td>
<td>Sections close to Prishtinë should be co-ordinated with construction of Fushë Kosovë bypass</td>
</tr>
<tr>
<td>New high-standard 2-lane road from bypass at Fushë Kosovë to Komorane. Restoring design standards and smaller upgrading works on other parts of the route</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>€ 416.9 million</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source:  Feasibility Study and Environmental Assessment for two main road axes in Kosovo, COWI A/S, Dec2006

Implementation Plan
Develop segments 7-3 to 7-5 as full motorway during next six years, in one or two packages.
  - One technical support contract focused on assisting MTC with environmental and spatial permits and land acquisition for all packages.
  - One international “engineer” contract focused on procurement and oversight on preparatory works and main construction contracts.
  - Contracting methodology for main construction contracts for packages turnkey type design-build contracts with substantive risk transfer to contractor.

Upgrade various portions of Routes 6 and 7 to improved 2 lanes standards, and develop bypasses of major towns, during the next five to ten years.
  - Increased reliance on MTC staff to complete permits, land acquisition, oversight of preparatory works and main construction contracts. Targeted international assistance as required.

Upgrade portions of Routes 6 and 7 to motorway standards as traffic warrants.
  - Development planning and management by MTC.

Finance Plan
Proposed capital expenditure of € 417 million, see Appendix 1 for details Table A1-3.

Potential for Use of PPP Methodologies
Asset transfer methodologies (see section 3.4.3) could be used in conjunction with the development of segments 7-3 to 7-5 to motorway standards, as in Option 2. However, lack of strategy to develop and toll remainder of routes 6 and 7 will likely result in less perceived viability of BOT type investments.
Provision of a portion of the development cost through private finance (see 5.2) likely to be problematic due to the only potential tolled segment being in vicinity of Prishtinë, and with the timing of improvements to allow high speed through traffic and additional toll revenues being uncertain.

**Considerations in Utilising this Option**
This option will provide an initial pilot project (motorway in vicinity of Prishtinë) which can act as a training ground for both the private road construction sector and for MTC development staff. Thus this option may foster more domestic self reliance, and a higher domestic retention percentage of the total capital investment. However, without a viable plan for continuing investment beyond segments 7-3 to 7-5, the perceived risks to private investors in the domestic construction market will be increased, which may result in lower domestic investment overall.

### 3.3.3 Option 2
#### The Project
Option 2 (see Figure 3-3 to Figure 3-6) is a strategy for completion of Route 7 in its entirety, 115 kilometres of motorway, €1.0 billion capital expenditure, in piece-wise fashion over a 20 year development period assuming development finance will be somewhat difficult to obtain. Below is a synopsis of this option, see Appendix 3 for further details).
Figure 3-4   Option 2 – hypothetical development in year 2017

Option 2, 2017

Figure 3-5   Option 2 – hypothetical development in year 2022

Option 2, 2022
Indicative private sector attractiveness

Option 2 is the first development strategy that the Consultant examined as part of this project. At the time of beginning the analysis of this option, the Consultant was already aware that the MFE had indicated an UNWILLINGNESS to commit to long term budgetary support for a motorway project. The purpose of this option was to analyse whether or not it was possible to configure a BOT/DBOF project that would NOT require long term governmental support. Below is a summary of that analysis, with further details contained in Appendix 3.

Segments 7-3 to 7-5 and the link between Routes 7 and 6 could be the first stage of the proposed motorway development representing a total length of 37.7 km of 4-lane motorway including a 4 km long R7/R6 ½ motorway link. These segments represent the highest traffic volume at present in Kosovo. The length of the proposed private financed segment 7-5a is 5.9 km and corresponds to about 16% of the total length as well as the estimated financial part of the whole first stage motorway project (segments 7-3 to 7-5). The remaining motorway segments 7-3, 7-4 and 7-5b (see above Figure 3-3) is expected to be financed by either public and/or donor finance.

Collection of toll revenue will be allowed by the private operator on the entire length of segments 7-3 to 7-5.
Several assumptions are used for the assessment of the financial viability of the private investment (see Appendix 3, Table A3-2). Generally the analysis in Appendix 3 should be considered very preliminary in nature, and suitable only for conceptual planning. More detailed analyses will need to be performed on the actual initial projects.

The indicative return on the private investment is further based on a certain relationship between the tolls imposed on users and the traffic that will likely use the tolled motorway. The Consultant has made recommendations for further analysis of potential traffic revenues.

The indicative return on private investment of the first stage motorway project segment 7-3 to 7-5 is found to be around 8% to 9% after debt service. The indicative financial viability is regarded as slightly lower than what would normally be expected by private investors for similar risk profiles (12% to 15%).

However, given the imprecision of the input data, the Consultant considers that it might be possible to obtain a small amount of private finance for an initial pilot project. This finance would probably be equity or quasi-equity, in essence representing private developers gambles that over the longer term it would be in a favourable position to take part in constructing larger parts of the Route 7 corridor.

The impact on the traffic diversion when imposing tolls (€ 0.02/km) are illustrated below for three “willingness to pay” scenarios. The estimates are made by the traffic model (EMME/2) which was also applied on the Two Axes Study. The scenarios are illustrated in below figure showing in percentage how much traffic out of the total traffic, depending on willingness to pay, that will use (divert to) the motorways when tolls are imposed. Again, these diversion figures are suitable for conceptual planning only, and the Consultant strongly recommends an investment grade traffic revenue study be undertaken.

Figure 3-7  Traffic diversion when tolls are imposed (low, average and high willingness to pay)

Source: EMME/2 traffic model
This same toll / traffic / revenue relationship was applied to the entire length of Route 7 (rather than the initial project consisting of segments 7-3 to 7-5), and the results are presented in section 3.4.5 (Conceptual Route 7 Revenue Leveraging Potential).

### Implementation Plan

Multiple development packages:

- **package 1** – segments 7-3, 7-4, 7-5b and route 7/6 link developed by public sector in time period 2008 to 2012. May be subdivided into two or more construction contracts.
- **package 2** – segment 7-5a developed by private sector as DBOF concession in time period 2008 to 2012
- **package 2a** – private sector installs toll system on segments 7-3 to 7-5, and operates and maintains entire motorway
- **additional segments** developed by public or private sources over time as traffic and finance permit

**Technical issues:**

- One technical support contract focused on assisting MTC with environmental and spatial permits and land acquisition for packages 1 and 2.
- One international “engineer” contract focused on procurement and oversight on preparatory works and main construction contracts.
- Contracting methodology for package 1 construction contract(s) to be turnkey type design-and-build contracts with substantive risk transfer to contractor.
- Transaction advisor for tender and negotiation of packages 2 and 2a.

### Potential for Use of PPP Methodologies

- DBOF methods combined with asset transfer techniques (see section 3.4.2 and 3.4.3) are proposed to provide an initial privatised motorway concession that requires very limited public budgetary support beyond the construction of package 1.
- Concession contract designed to re-inject toll revenues into development of additional length of motorway. Private sector developer has opportunity for small initial project (package 2) along with potential for continuing series of construction projects over time. Contract also allows public sector to develop additional length of motorway and add it to the operations concession. The intent of the contractual arrangements is to develop a true partnership, where both public and private sector have maximum incentive to assist each other in completing the entire corridor as quickly as possible.

### Considerations in Utilising this Option

This option will provide an initial project (motorway in vicinity of Prishtinë) which can act as a training ground for both the domestic private road construction sector and for MTC development staff. The potential for additional publicly developed projects along the corridor will provide a continuing work
stream, and natural lobby for additional public investment. The potential for additional private sector developed projects will help ensure that experienced foreign contracting expertise will focus on development of domestic construction capacity.

### 3.3.4 Option 3

**The Project**

Option 3 is an ambitious strategy for completion of Route 7 in its entirety, 115 kilometres of motorway, €1.15 billion capital expenditure, and 10 years development time.

*Figure 3-8 Option 3 – 118 km developed in 10 years (2008-2017)*
Implementation Plan
Divide into between 3 to 6 development packages:
  o package 1 – segments 7-3 to 7-4, length 17 kilometres.
  o package 2 – segment 7-7, length 17 kilometres
  o package 3 – segment 7-5 plus the R6/7 link, length 17 kilometres motorway plus around 10 kilometres of link road.
  o package 4 – segment 7-6, length 22 kilometres
  o package 5 – segment 7-8, length 17 kilometres
  o package 6 – segments 7-1 and 7-2, length 25 kilometres

(Packages 1, 3 and 6 could be combined into one large or two smaller packages. Packages 4 and 5 could be combined into a single package.)

  o packages stagger in time

<table>
<thead>
<tr>
<th>Package</th>
<th>start</th>
<th>finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2008</td>
<td>2012</td>
</tr>
<tr>
<td>2</td>
<td>2009</td>
<td>2013</td>
</tr>
<tr>
<td>3</td>
<td>2010</td>
<td>2014</td>
</tr>
<tr>
<td>4</td>
<td>2010</td>
<td>2017</td>
</tr>
<tr>
<td>5</td>
<td>2011</td>
<td>2015</td>
</tr>
<tr>
<td>6</td>
<td>2011</td>
<td>2016</td>
</tr>
</tbody>
</table>

  o One technical support contract focused on assisting MTC with environmental and spatial permits and land acquisition for all packages.

  o Three international “engineer” contracts (one each for packages 1, 2 and 4) focused on procurement and oversight on preparatory and main construction contracts. For packages 3, 5 and 6, consideration given to increasing role for MTC staff and reduced roll from international advisors.

  o Contracting methodology for main construction contracts for packages 1, 2 and 4 – turnkey type design-and-build contracts with substantive risk transfer to contractor. Packages 3, 5 and 6 consideration to be given to the potential for unit price contracts to improve capacity of domestic design and construction industry.

Finance Plan

Table 3-3  Conceptual Expenditures (£ millions – 2006 cost year)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>design &amp; assistance</td>
<td>1.3</td>
<td>2.3</td>
<td>7.6</td>
<td>12.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Land</td>
<td>7.7</td>
<td>24.4</td>
<td>15.2</td>
<td>16.4</td>
<td>14.2</td>
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<td>Works</td>
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<td>11.5</td>
<td>17.7</td>
<td>64.2</td>
<td>127.5</td>
</tr>
<tr>
<td>toll system</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9.0</strong></td>
<td><strong>38.2</strong></td>
<td><strong>40.5</strong></td>
<td><strong>93.4</strong></td>
<td><strong>153.1</strong></td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>design &amp; assistance</td>
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<tr>
<td>Land</td>
<td>3.0</td>
<td>1.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Works</td>
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<td>160.8</td>
<td>198.2</td>
<td>142.8</td>
<td>130.6</td>
</tr>
<tr>
<td>toll system</td>
<td>0.5</td>
<td>2.9</td>
<td>5.4</td>
<td>3.5</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>187.1</td>
<td>165.4</td>
<td>203.6</td>
<td>146.3</td>
<td>134.8</td>
</tr>
</tbody>
</table>

**Potential for Use of PPP Methodologies**

- Tolled motorway operation and maintenance contracts are ideally suited (see section 3.4.4).
- Provision of a portion of the development cost through private finance likely to be possible within the planned development window of the later packages (see section 3.4.5). Provision of private finance for a portion of Route 6 construction costs would be yet easier.
- Short development time frame, low initial traffic and value for money implications will likely rule out the use of design-build-operate-finance type development methodologies for the roads themselves (see section 3.4.2). However, once a substantive portion of Route 7 was nearing completion of development, asset transfer techniques would become a viable for the DBOF development of the final portions of Route 7 or beginning portions of Route 6 (see section 3.4.3).

**Considerations in Utilising this Option**

- The construction window in Option 3 is approximately twice as long as in Option 4, which will likely aide in controlling construction cost inflation.
- Smaller contract packages and contract types with less risk transfer to the private sector will likely assist the development of the domestic construction industry. The longer duration of construction will increase the potential for domestic investment in high value-added equipment, services and personnel. This investment would likely be even higher if it was clear that further work (Route 6) was clearly scheduled to follow immediately in the government’s development plan.

### 3.3.5 Option 4

**The Project**

Option 4 is an aggressive strategy for completion of Route 7 in its entirety, 115 kilometres of motorway, €1.15 billion capital expenditure, and 6 years development time.
Option 4 – 118 km developed in 6 years (2008-2014)

**Implementation Plan**

Divide into two development packages:

- package 1 – segments 7-1 to 7-5, length 59 kilometres.
- package 2 – segments 7-6 to 7-8, length 56 kilometres.

- Both packages commence essentially simultaneously, allowing a 2 to 3 year planning and permitting window and a 3 to 4 year design & construction window.
- One technical support contract focused on assisting MTC with environmental and spatial permits and land acquisition for all packages.
Two international “engineer” contracts (one for each package) focused on procurement and oversight on preparatory and main construction contracts.

Contracting methodology for main construction contracts – turnkey type design-and-build contracts with substantive risk transfer to contractor.

Finance Plan

Table 3-4 Conceptual Expenditures (€ millions – 2006 cost year)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>design &amp; assistance</td>
<td>8.0</td>
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<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>2.0</td>
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<tr>
<td>land</td>
<td>25.7</td>
<td>37.6</td>
<td>9.9</td>
<td>8.6</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>works</td>
<td>0.0</td>
<td>11.5</td>
<td>168.9</td>
<td>191.6</td>
<td>383.6</td>
<td>278.8</td>
</tr>
<tr>
<td>toll system</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>6.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>33.7</td>
<td>61.1</td>
<td>182.8</td>
<td>204.2</td>
<td>394.4</td>
<td>287.4</td>
</tr>
</tbody>
</table>

Potential for Use of PPP Methodologies

- Tolled motorway operation and maintenance contracts are ideally suited (see section 3.4.4).
- Provision of a portion of the development cost through private finance may be possible within the planned development window (see section 3.4.3). Provision of private finance for a portion of Route 6 construction costs would be yet easier.
- Short development time frame, low initial traffic and value for money implications will likely rule out the use of design-build-operate-finance type development methodologies for the roads themselves (see section 3.4.2). However, once a substantive portion of Route 7 was nearing completion of development, asset transfer techniques might become a viable for the DBOF development of a final portion of Route 7 or the beginning of Route 6 (see section 3.4.3).

Considerations in Utilising this Option

- The impact of injecting €1.15 billion into a small economy deserves consideration. Construction price inflation is not unlikely, and this may spill over into the general economy.
- Restricting the initial development projects to Route 7 will make it more likely that high value-added equipment, services and personnel will remain in the country if further work (Route 6) was clearly scheduled to follow immediately in the government’s development plan.
3.3.6 Option 5

The Project
Option 5 (see Figure 3-10) is the classic fast track solution to development of the Kosovo priority motorway network, 169 kilometres of motorway, €1.5 billion capital expenditure, 6 years development time.

![Option 5 - 169 km developed in 6 years (2008-2014)](image)

Implementation Plan
Divide into three development packages:
- package 1 – segments 7-1 to 7-5, length 59 kilometres.
- package 2 – segments 7-6 to 7-8, length 56 kilometres.
package 3 – segments 6-5 to 6-7, length 51 kilometres.

- All three packages commence essentially simultaneously, allowing a 2 to 3 year planning and permitting window and a 3 to 4 year design & construction window.
- One technical support contract focused on assisting MTC with environmental and spatial permits and land acquisition for all packages.
- Three “engineer” contracts (one for each package) focused on procurement and oversight on preparatory and main construction contracts.
- Contracting methodology for main construction contracts – turnkey type design-and-build contracts with substantive risk transfer to contractor.

### Finance Plan

**Table 3-5 Conceptual Expenditures (€ millions – 2006 cost year)**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>design &amp; assistance</td>
<td>13.5</td>
<td>16.6</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>land</td>
<td>25.7</td>
<td>48.0</td>
<td>17.3</td>
<td>8.6</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>works</td>
<td>0.0</td>
<td>11.5</td>
<td>245.1</td>
<td>285.2</td>
<td>477.2</td>
<td>351.0</td>
</tr>
<tr>
<td>Toll system</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>7.8</td>
<td>11.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>39.2</td>
<td>76.1</td>
<td>266.4</td>
<td>297.8</td>
<td>489.0</td>
<td>364.4</td>
</tr>
</tbody>
</table>

### Potential for Use of PPP Methodologies

- Tolled motorway operation and maintenance contracts are ideally suited (see section 3.4.4 below).
- Provision of a portion of the development cost through private finance may be possible within the planned development window (see section 3.4.5 below).
- Short development time frame, low initial traffic and value for money implications will likely rule out the use of design-build-operate-finance type development methodologies for the roads themselves (see section 3.4.2 below).

### Considerations in Utilising this Option

- The impact of injecting €1.5 billion into a small economy deserves consideration. Construction price inflation is likely, and this may spill over into the general economy.
- Large turn-key construction contracts combined with a relatively under developed domestic construction sector may result in the import, followed by the re-export after the development period, of high value added equipment, services and personnel.
3.4 PPP Delivery Methodology

3.4.1 Introduction

Usage of PPP by the public sector is commonly driven by such needs and goals as:
- overcoming financing shortfalls for required infrastructure;
- more efficient use of resources;
- generation of commercial value from public assets;
- delivery of improved quality services to the public.

The perceived benefits of forming a partnership with the private sector include:
- accelerated project implementation;
- reduced whole life costs;
- better risk allocation;
- enhanced public sector management;
- increased focus on performance;
- additional or ring-fenced revenue sources.

There is no unique PPP model but it must be suited and tailored to each specific situation. The EC has no specific definition of PPP, but has specific rules governing procurement and operating structures. Basic EU policy includes:
- Fair and open competition and transparent public procurement procedures, thus ensuring open market access.
- Adherence to the EU principles governing State Aid – over compensation for service rendered, unfair advantages provided to one player in market.
- Protection of the general public interest.
- Public participation and consultation to ensure long-term project sustainability.
- Clear demonstration of value for money for the public sector, and avoidance of undue benefits to the private sector.

The five development strategy options set out in section 3.3 are amenable to, or in some cases require, one of the generic PPP delivery methodologies set out below.

Appendix 2 provides information on other PPP options in the road sector including an outline of strengths and weaknesses and implementation scheduling.

In the following the Consultant makes reference to two PPP options that are found appropriate under the present economic and political conditions in Kosovo and best suited to support the highway development projects as set out in above section 3.3.
3.4.2 Basic DBOF (BOT)

The basis of this methodology is that the government grants a concession to a private sector operator to Design-Build-Operate-Finance (DBOF) a particular project. In its purest form, the private sector funds essentially all development costs and recovers this investment from revenue derived during the operational period from user charges (tolls) or governmental payments (i.e. shadow tolls, performance based operational payments, etc.) or a combination of the two.

Contractual Mechanisms
During the final 20 years of the last century, DBOF development techniques were developed out of a lending technique called “project finance”. The essential element of project finance is that borrowings are secured not by physical or financial assets, but rather by an interlocking web on contracts. See below figure for a typical contract structure for a toll financed project.

Figure 3-11 Typical DBOF Contract Structure
Indicative Risk Sharing

Typical risk sharing arrangements that would be embedded in the concession contract structure for a project without substantive governmental support mechanism would be similar to:

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Government</th>
<th>Shared</th>
<th>Concessionaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial Design and Environmental Permits, Land Acquisition – solution:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adequate legislative framework, environmental assessment, public consultation</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design &amp; Construction – solutions: proven technology, performance guarantees,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contractor’s equity</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Operations &amp; Maintenance – solutions: experienced operator, performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>guarantees, operator’s equity</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cost Overruns – solutions: fixed price contracts, increased equity, standby</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>credit</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Force Majeure – solutions: insurance, government indemnities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Stream – solutions: traffic and revenue analysis, traffic growth,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>short-term interest cover reserves</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Political Risk – insurance, government non-expropriation assurances, legislative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>framework</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

3.4.3 Asset Transfer

This methodology is essentially a variation to the DBOF approach described in Section 3.4.2. The difference is that select government assets (motorways) are transferred into the concession granted to the private sector. This essentially takes the form of a lease or license to utilise the assets for a period of time.

There are two reasons to utilise such a methodology in the context of Kosovo:

- Insufficient traffic and low ability of population of Kosovo to pay toll result in insufficient revenue to make a DBOF concession financially feasible without substantive governmental support. Preliminary calculations indicate the level of governmental support required would likely exceed 70-80 % which would raise basic value for money concerns.

- The Consultant’s investigations to date tend to indicate that substantive long term revenue commitments from the government in support of a private motorway concession do not appear to be under consideration by the government at this time.

The potential benefit of the Asset Transfer methodology in the context of Kosovo is that, it would allow initial motorway segments constructed with public funds using traditional methodologies to be used to leverage additional private sector investment.

The preliminary calculations set out in Appendix 3 indicate a 15 % private sector finance contribution is possible in an initial project consisting of packages 1, 2 and 2a of Option 2. It is not possible at this time to know the ultimate per-
percentage of private sector investment that might be leveraged by use of asset transfer methodology to commence development of Route 7, but conceptual toll revenue estimates tend to indicate that there is a chance to achieve ultimate private sector investment in the vicinity of a third to a half of total development cost if long term conditions are conducive and the development time horizon is medium to long term.

**Contractual Mechanisms**

The practical affect of asset transfer is an increased short to medium term likelihood that the Concessionaire will generate revenues in excess of those considered reasonable. Additional contractual mechanisms are necessary to ensure that excessive revenues are appropriately re-captured by the public sector, and that the Concessionaire’s incentive to continue development of the entire Route 7 corridor is aligned with that of the government. The additional contractual mechanisms necessary to achieve this are:

- **Indicative costs for full corridor** – Initial tenders and concession contract contains indicative design and costing for the full Route 7 corridor. This forms the basis for later agreement on exact cost when any section of the corridor is developed.

- **Expansion triggers** – Initial tenders and concession contract contain time and traffic volume based triggers for each future section of the full Route 7 corridor. Prior to reaching the time trigger, the Concessionaire has first rights to design and build the new segment. After the time trigger is reached, the Government may develop the segment itself, and may require that the Concessionaire operate and maintain it. If the Concessionaire does not develop a new segment before the traffic volume trigger is reached, the government may enforce the Excess Revenue Claw-back Mechanism.

- **Excess Revenue Claw-back Mechanism** – This mechanism ensures that all revenue in excess of that required to pay for debt service, operations & maintenance, and an agreed commercial return to the Concessionaire will be deposited in a secure account. Funds in this account can be used by the Concessionaire to develop additional segments of motorway in accordance with the contract. If the Concessionaire has not commenced development by the time of the appropriate time or traffic trigger, the funds in this account may (at government's option) revert to the government.

**Indicative Risk Sharing**

Risk sharing provisions similar to DBOF, see Section 3.4.2. Additional risk provisions that arise when using asset transfer techniques include:

- **Asset transfer quality risk** – In the DBOF scenario, all assets are designed and built by the Concessionaire, hence the risk of defective design or construction is borne by the Concessionaire. There is a risk that the assets transferred into the concession are substandard and require repair or that maintenance costs are higher than expected. The quality risk of transferred assets is normally borne by the government, who in the Kosovo context would have recourse to the defects liability provisions of the construction contracts for the assets being transferred. Beyond the initial packages (1 and 2), for any later government-
constructed segments the Concessionaire could be present during the construction, allowing the possibility for some sharing of this risk.

### 3.4.4 Toll Operations and Maintenance Contracts

Toll operations and maintenance contracts provide a simple mechanism to utilise private sector expertise to maintain an already-constructed motorway, and to develop and operate a toll system on that motorway.

**Contractual Mechanisms**

Toll revenue is collected by the operator but passed immediately to the government. The operator is compensated by means of a segment specific payment, adjusted for traffic volume. See Figure 3-12.

The cost of a toll system is relatively small\(^\text{11}\), thereby allowing the possibility that the operator will construct with its own funds, or that any debt related to the project will be simpler to negotiate.

**Figure 3-12 Typical Operations Contract structure**

- **Indicative Risk Sharing**
  - Risk sharing provisions generally similar to DBOF, see Section 3.4.2.
  - Given that the private sector investment necessary for an operations contract is relatively small, contract durations can be shorter. The Government will need to take a greater share of the toll rate setting risks.

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\(^{11}\) The cost of toll collection systems varies from systems amounting around € 30,000 to more than € 1 million and can take form of simple toll collection systems with very low cost of initial costs of establishment or high quality physical facilities and payments systems. Generally, the proportion of the cost of toll operations is low compared to total toll revenue and range between 3% and 25% depending on toll levels (€/km 0.02 - 0.06) and traffic volume (5,000 - 15,000 vehicles per day). On the north section of Novi Sad motorway near the Belgrade - Hungary border, the toll operation costs corresponded to 3% of the annual revenue of € 30 million.
3.4.5 Toll Revenue Leveraging – by Government

In instances where the government keeps control of toll revenue, such as when it:

- contracts toll collection operations to the private sector, or
- collects tolls itself,

then the government will have the ability to either:

- utilise this revenue when it is collected, or
- leverage it by borrowing against expected future toll receipts.

Leveraging of future toll revenues is routinely performed under DBOF methods by the Concessionaire. Very similar financial techniques can be used to turn the Government’s toll revenue from a toll motorway into sizable amounts of development capital.

In the context of development Options 3, 4 or 5 (see above section 3.3) leveraging of future toll revenues has very good potential to fill gaps that may arise over time in funding plans for Routes 6 or 7.

Contractual Mechanisms

Figure 3-13 Typical Toll Revenue Leveraging

Conceptual Route 7 Revenue Leveraging Potential

Below is rough estimate of cash flow from tolling of Route 7. The projections are based upon the COWI Two Axes Feasibility Study for years 2012 to 2031, and thereafter a moderate and decreasing growth rate was assumed. Toll rate assumed is € 0.02/km in 2012, increasing in line with assumed inflation.
Estimated potential amounts of up-front borrowing that could be supported by these scenarios are:

- Low: €490 million
- Medium: €690 million
- High: €890 million

Best current guess at the revenue to MTC from tolling Route 7 would be:

- A borrowing to finance construction in an amount of €500 to €700 million.
- Annual toll revenue (in excess of that needed to repay the borrowing) of around €10 to €15 million annually.

**Important caveat:** the above calculations are based upon rudimentary traffic and economic calculations, and the resulting amounts should be considered as having a high margin of error. More definitive financial estimates will require that an “investment grade traffic and revenue study” be conducted.
3.5 Revenue Issues

3.5.1 Introduction
There have been substantive indications from several sources interviewed by the Consultant that:

- Budgetary mechanisms are such that it does not appear likely in the short term that it will be possible for the Government to:
  - provide substantive loan guarantees to private sector investors, or to,
  - provide definitive budgetary commitments to facilitate long term partial support of privately road financed projects.

3.5.2 Use of Tolls
Motorway tolls are a tax. It is inconvenient to have to stop to pay road tolls. Why bother with tolls at all? Some reasons:

- The development of the Routes 6 and 7 corridors are by far the most expensive development projects currently being planned by the Government. Other projects will be to an extent crowded out. The “user pays principle”, embedded in EU policy argues that the users of such a sizable new investment should pay in proportion to their use.

- Without tolls or substantive future governmental guarantees or financial support, it will be very difficult to facilitate any substantive Public Private Partnerships (PPP).

- Tolls represent an independent source of revenue to the MTC, essentially funded through a tax on the users of a new and desirable asset.

- It is relatively easy to establish tolls on a new road, but politically much harder to toll a road after it has been opened to traffic. Toll systems can be dismantled when the revenue from them is no longer needed.

- Events will take their course over a period of years. It will become clear how much donor finance is available. It will become clear what the actual cost of developing the Kosovo motorway system will be. Toll revenue may become critical for filling financing gaps.

3.5.3 Competitive Routes and Tolls
There is one result of using motorway tolls that will impact on the medium term plans of the MTC, and this is the so called “competitive parallel routes” issue. If there is a free road running parallel to, and relatively close to a tolled route then users tend to divert to the free route instead of the tolled route (unless the tolled route provides substantive traffic congestion relief).
Building or upgrading parallel competitive routes are normally restricted by concession agreements or toll revenue leveraging agreements (e.g. – the options described in Sections 3.4.2, 3.4.3 and 3.4.5).

Such a restriction will generally not be problematic in Kosovo. Restrictions on widening and improving the speed limits on these routes won’t likely be controversial. Generally over time development along these routes will cause increasing congestion on them, and the public and local government normally desire reductions in their speed limits over time due to safety and quality of life issues.

However plans for the Third Pristina Ring Road would be affected by institution of motorway tolls in the area of Pristina. Implementation of motorway tolls would likely require changes to the plans for the ring road. In the short term, the simplest solution to this problem would be to leave strategic gaps in the ring road, and channel bypassing traffic into the motorway rather than parallel to it. Alternatively the western side of the ring road and the M25 motorway could have a common alignment over this length. In the long term, when finance conditions permit and road congestion in Pristina increases sufficiently, it might be reasonable to eliminate tolling through the built-up portions of Pristina.

### 3.5.4 Funding Gaps

With any of the development scenarios set out in Section 3.3, there are two potential strategies that could be considered to deal with any funding gaps that may appear during the development process.

#### Deferrals

The first option is to defer portions of the project until additional funding is available. Two different methods for deferral of funding present themselves:

- One method is the construction of extra-width half motorways for low-traffic portions of the corridor, thereby allowing 4 narrow lanes on one carriageway. This temporary measure was successfully used by Germany in the 1990s.

- The second method is to initially build a single carriageway in all, or portions of, the mountainous segment (7-6) between Shitime and Suhareke, and using this carriageway to carry motorway traffic in one direction only. This section is very costly due to mountainous terrain, and extensive viaducts and tunnels. The existing parallel route would then be upgraded at moderate cost (safety improvements and passing lanes), providing an improved two lane highway to carry traffic in the other direction.

The second option to deal with a funding gap is to utilise private sector finance by means of some type of PPP project.

#### PPP Based

PPP development methodology can be viewed as a means of increasing flexibility in funding future development projects, to cover a funding gap in the initial project, or to extend a project. This would involve making provision for use
of PPP from the start of development of the motorway programme, but leaving open the exact manner to use PPP until the development situation became clearer. Two strategies that could be considered in this regard:

**Operations contract, leverage future toll revenue**
Plan to tender one or more private tolling, and motorway operations and maintenance contracts for the motorway. The toll revenue would flow to the Government. The Government would then be in a position to obtain private sector borrowings secured by future toll revenues (see sections 3.4.4 and 3.4.5 for details) to fill a sizable funding gap.

**DBOF to fill a gap and operate road**
A second strategy would be to transfer a large length, say all of Route 7, of completed publicly constructed motorway assets into a DBOF concession (see section 2.4.2). The private concessionaire would be responsible for designing and building an additional segment of motorway, say Route 6 from Prishtinë to Macedonia, and then for operating and maintaining the entire motorway (both publicly and privately developed sections).

### 3.6 Traffic, Toll Rate and Revenue Relationships

#### 3.6.1 Introduction

Tolls can be applied to a motorway to achieve a variety of goals, including:

- to generate revenue
- to ensure the actual users of the road pay the largest share of its costs
- to reduce traffic and environmental externalities

It has long been recognised that adjusting the toll level has profound affects on traffic volumes and revenue toll generated, and thus on the ability of a government to attain any of these goals. The purpose of this section is to illustrate some aspects of the traffic – toll level – revenue relationship, and how the available data was used by the Consultant to make preliminary recommendations in the specific case of the Kosovo Motorway Programme.

*The Consultant strongly recommends that the MTC obtain more precise data on the potential traffic revenue that could be expected from the tolling of the Kosovo Motorway Programme. It is recommended that MTC commission an “investment grade” traffic and revenue study of Route 7 in the very near future.*

One of the key characteristics of an investment grade traffic revenue study is that it attempts to divide users into groups based upon their perception of value of time, and the likely origin and destination of users. This allows more precise estimates of the number of users and amount of revenue that are likely to be found on various segments of a toll road over time and how this may be affected by variations in the toll level. This data is of critical importance in judging the ability of a toll road to repay public or private borrowings used to construct the toll road itself, or to provide revenue to finance other projects or activities.
This data is also of fundamental importance in deciding how to develop toll rate charges and subsidiary regulations.

Prior to the availability of data from an investment grade traffic and revenue study, there are some less precise but easier found indicators of the financial viability of a toll road. One of the most important factors affecting the success of a toll road is the affordability of the tolls to the expected users. This can be expressed in terms of the economic concepts known as Affordability and Willingness-to-Pay (WTP). A related concept is that of Value of Time, which combines the ideas of affordability, willingness-to-pay and other factors into a measure of the value that any specific user group will perceive from the time savings provided by a faster travel option such as a motorway.

Sections 3.6.2 and 3.6.3 below summarise available existing data on income and consumption pattern in REBIS countries and Kosovo. This data is only sufficient to give a rough indication of the potential affordability of tolls to the domestic users of transport services in Kosovo. This data is NOT SUFFICIENT for purposes of determining optimum toll levels nor is it sufficient to make reasonable projections of the revenue which may be generated from tolls.

When WTP exceeds the proposed toll levels, then the group of users being considered may find the proposed toll road to be a potentially attractive option. If the general WTP is below the implicit tolls, then the proposed toll road may be unaffordable to the group of users being considered. In extreme cases, the average income of the group of users being considered might be so low that the ability to pay is called into question. In other words, the toll can be set so high that the user group simply cannot afford to pay it under any circumstances.

The REBIS transport study of July 2003 provides data on the experience from REBIS countries on toll levels applied and related affordability, and relevant extracts are contained in section 3.6.2. Additional information has been collected on the income and consumption pattern in Kosovo from 2003 to 2005 from the Statistical Office in Kosovo (SOK) of which an extract is also provided in section 3.6.3. The most recent study on income, consumption and affordability in Kosovo was the Road User Charge Study by Roughton in January 2004, summarised further below.

Section 3.6.4 below illustrates how the Consultant used the available (but imprecise) economic data to make a projection of the potential revenue that may be derived from tolling Route 7. This analysis underpins the estimates of potential toll-backed borrowing contained in section 3.4.5.

Section 3.6.5 touches on the matter of setting and adjusting toll rates, and the effect of different control mechanisms can have on the viability of a motorway programme.

3.6.2 Toll road affordability in the REBIS region

The following table shows per capita GDP and average household income for the REBIS countries with indication that Croatia has by far the highest figures.
Table 3-6  Per capita GDP and household income.

<table>
<thead>
<tr>
<th>Country</th>
<th>Per capita GDP (PPP) (USD) 2006 est.</th>
<th>Total Average Monthly Household Income (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>5.600</td>
<td>258</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>3.269</td>
<td>n.a.</td>
</tr>
<tr>
<td>Croatia</td>
<td>13.200</td>
<td>851</td>
</tr>
<tr>
<td>FYRO Macedonia</td>
<td>8.200</td>
<td>n.a.</td>
</tr>
<tr>
<td>For Serbia (including Kosovo)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>


Some of the main lessons learnt from the REBIS projects are that in most cases an average car owner would not be willing to pay for time savings by using the toll roads in particular for shorter distances i.e. 30 km as seen from the example below.

The general conclusion is that a concession toll road, operated on a strictly commercial (i.e. BOT) basis without any support from the government in the REBIS countries, is not affordable because the general level of income and the average WTP are too low at present.

REBIS Example (Croatia)

Assuming an average trip length of 30 km, using a toll motorway would save 10 minutes. The question is whether the average car owner in the REBIS countries would pay about € 3 (this is calculated for a 50-km toll motorway with a EUR 5 car toll in our example - € 0.1 per km) to save 10 minutes?

Using Croatia, the wealthiest country in the REBIS region, as an example, it is highly unlikely for two reasons. Firstly, the average income is probably not high enough (€ 727 is the household figure). Secondly, the value of time is also too low. Using € 700 per month net after income tax as an example implies an hourly wage rate of about € 4.

For a work trip, it is doubtful if a car owner would pay € 3 to save 10 minutes on a 30-km journey when his wage rate is € 4 per hour. Assuming further that the leisure value of time in Croatia is 25% of the wage rate i.e. € 1, it is unlikely that the average car owner would pay € 3 to use a toll road to save 10 minutes on a leisure trip.

The implicit tolls, especially for cars and with respect to the domestic market, are too high to generate the traffic flows forecast in each of the reference cases. Actual traffic would probably be much lower than the 12,000 vehicles per day needed. This is assuming that there exists a corridor in the REBIS countries that has significantly more than 12,000 vehicles per day, as the 12,000 is the diverted traffic to the toll road.
3.6.3 Affordability in Kosovo

The Kosovo Road User Charges Study\textsuperscript{12} carried out household surveys in order to determine the affordability level for Kosovo residents in relation to road user charges. Data was collected on income and expenditure and the proportion of income spent on essentials and luxuries, and the likely impact of increased transport costs on the prices of important household commodities.

Table 3-7 Monthly Household Income and Expenditure Statistics, 2002 June - November (EUR)

<table>
<thead>
<tr>
<th>Kosovo</th>
<th>Type of Settlement</th>
<th>Extreme Poverty line EUR 1.10 per day per adult</th>
<th>Complete Poverty line EUR 2.26 per day per adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Urban</td>
<td>Rural</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>408</td>
<td>348</td>
<td>436</td>
</tr>
<tr>
<td>Household Income</td>
<td>561</td>
<td>471</td>
<td>602</td>
</tr>
<tr>
<td>Household Consumption</td>
<td>395</td>
<td>351</td>
<td>416</td>
</tr>
<tr>
<td>Expenditures of Households</td>
<td>77</td>
<td>10</td>
<td>107</td>
</tr>
<tr>
<td>Consumption of own produced food</td>
<td>89</td>
<td>110</td>
<td>79</td>
</tr>
</tbody>
</table>

Source: Short Poverty Update, May 2003, Statistical Office of Kosovo
Note 1) The survey indicate that the consumption is higher that the household income suggesting other sources of income.

Above table shows the estimates for the average monthly household income (2002 survey) of €408. It is estimated\textsuperscript{13} that, around 18% of the non-car owners and 4% of car owner are among the extreme poverty line households. For the complete poverty line there are about 63% of non-car owners. Although the traffic intensity is increasing with high estimated growth rates in the future, the survey figures indicate that it is likely that households in these categories will be unable to pay additional road user charges.

The expenditure level indicates a small portion for savings and that the urban households tend to spend slightly more of their income than households in the rural areas.

\textsuperscript{12} Kosovo Urgent Road Project, Consulting services for road user charges study, Final Report, January 2004, Roughton Int. UNMIK/World Bank

\textsuperscript{13} Kosovo Urgent Road Project, Consulting services for road user charges study, Final Report, January 2004, Roughton Int. UNMIK/World Bank
Table 3-8  Average Monthly Household Expenditure 2002

<table>
<thead>
<tr>
<th>Type of settlement</th>
<th>Kosovo</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total household expenditures</td>
<td>395.4</td>
<td>351.05</td>
<td>415.96</td>
</tr>
<tr>
<td>Food</td>
<td>242.02</td>
<td>227.12</td>
<td>248.92</td>
</tr>
<tr>
<td>Non food</td>
<td>90.58</td>
<td>73.93</td>
<td>98.3</td>
</tr>
<tr>
<td>Health</td>
<td>7.63</td>
<td>5.25</td>
<td>8.73</td>
</tr>
<tr>
<td>Communications</td>
<td>35.6</td>
<td>24.43</td>
<td>40.78</td>
</tr>
<tr>
<td>Recreation and culture</td>
<td>6.9</td>
<td>6.43</td>
<td>7.12</td>
</tr>
<tr>
<td>Education</td>
<td>1.32</td>
<td>1.37</td>
<td>1.3</td>
</tr>
<tr>
<td>Restaurants and hotels</td>
<td>2.58</td>
<td>3.9</td>
<td>1.97</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8.77</td>
<td>8.61</td>
<td>8.84</td>
</tr>
</tbody>
</table>

Source:  Short Poverty Update, May 2003, Statistical Office of Kosovo

The survey concludes that about € 40 is spent on luxuries covering restaurants, hotels, recreation, culture, tobacco and alcohol (estimate), representing expenditure that could be avoided. This amount could roughly be assessed as the maximum amount of extra road user charges that could be afforded by households in Kosovo per month based on 2002 household income and consumption.

The following provide more recent information on income and consumption in Kosovo. The consumption pattern has changed to the extent that the proportion of food is reduced from about 60% in 2002 to 40% in 2005 for Kosovo. Although a falling food share of the budget, the tendency also reflects an increase in the average income over the last 4 years where the nominal amount spend on e.g. food, clothes and transport has increased as a sign of higher economic standard\textsuperscript{14}.

\textsuperscript{14} The food consumption in 2003 can be somewhat over estimated, because of a different way of measuring own produced food compared to later years.
Consumption items such as housing, health, transport, clothing and communication have increased over the last three years although the survey result from 2002 and those from 2003-2005 are not fully comparable.\textsuperscript{15}

The consumption pattern differs between urban and rural areas on some items where one major difference is on food consumption where the share in 2005 for urban areas is 33\% and 40\% for rural areas. On the contrary is housing expenses for urban areas 37\% compared to 27\% for rural areas as indicated in the following tables.

\textbf{Table 3-9 Distribution of consumption in Kosovo 2003-2005}

\begin{tabular}{|c|c|c|c|}
\hline
Consumption & 2003 & 2004 & 2005 \\
\hline
Food & 48\% & 44\% & 40\% \\
& of which own production & 13\% & 9\% & 9\% \\
Alcohol & 3\% & 3\% & 4\% & Tobacco \\
Clothing & 5\% & 5\% & 6\% & \\
Housing & 29\% & 31\% & 30\% & \\
Furnishing & 4\% & 3\% & 4\% & \\
Health & 1\% & 2\% & 2\% & \\
Transport & 4\% & 5\% & 6\% & \\
Communication & 1\% & 2\% & 2\% & \\
Recreation & 1\% & 1\% & 1\% & \\
Education & 1\% & 1\% & 1\% & \\
Hotel & 1\% & 1\% & 1\% & restaurants \\
Misc. & 2\% & 2\% & 3\% & \\
Households & 278.397 & 274.371 & 261.877 & \\
Household income (EUR) & 5.281 & 5.563 & 5.863 & \\
Income/consumption per capita (EUR) & 840 & 910 & 950 & \\
Household size & 6.4 & 6.1 & 6.2 & \\
\hline
\end{tabular}

\textit{Source: Statistical Office of Kosovo (SOK)}

The increase in consumption per household has increased between 2003 and 2004 by about 8\% and about 5\% to € 5,863 in 2005 as seen in Table 3-9. Urban households have a higher consumption in 2005 of € 6,400 than the rural households with € 5,500.

\textsuperscript{15} It seems that the categorisation of consumption items has been adjusted during the surveys in 2003 to 2005 compared to the survey in 2002.
Table 3-10  Distribution of consumption in Urban areas 2003-2005

<table>
<thead>
<tr>
<th>Consumption</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>40%</td>
<td>38%</td>
<td>33%</td>
</tr>
<tr>
<td>Alcohol &amp; Tobacco</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Clothing</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Housing</td>
<td>37%</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>Furnishing</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Health</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Transport</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Communication</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Recreation</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Education</td>
<td>0%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Hotel &amp; restaurants</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Misc.</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Households</td>
<td>94,332</td>
<td>105,308</td>
<td>105,120</td>
</tr>
<tr>
<td>Household income (EUR)</td>
<td>5,621</td>
<td>5,946</td>
<td>6,399</td>
</tr>
</tbody>
</table>

Source:  Statistical Office of Kosovo (SOK)

Table 3-11  Distribution of consumption in Rural areas 2003-2005

<table>
<thead>
<tr>
<th>Consumption</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>51%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>Alcohol &amp; Tobacco</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Clothing</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Housing</td>
<td>25%</td>
<td>29%</td>
<td>27%</td>
</tr>
<tr>
<td>Furnishing</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Health</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Transport</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Communication</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Recreation</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Education</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Hotel &amp; restaurants</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Misc.</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Households</td>
<td>184,065</td>
<td>168,964</td>
<td>156,546</td>
</tr>
<tr>
<td>Household income (EUR)</td>
<td>5,107</td>
<td>5,326</td>
<td>5,503</td>
</tr>
</tbody>
</table>

Source:  Statistical Office of Kosovo (SOK)

The following table compares the consumption pattern between EU countries (1999) and for Kosovo (2005) indicating that the proportion of the income used on food is considerable lower for EU countries than for Kosovo whereas the share spend on e.g. transport and recreation is comparable higher for the EU generally due to different average income levels.
Table 3-12  Distribution of consumption in EU countries (14 member states) in 1999 and Kosovo in 2005

<table>
<thead>
<tr>
<th>Consumption</th>
<th>EU countries 1999</th>
<th>Kosovo 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min - Max</td>
<td>Min - Max</td>
</tr>
<tr>
<td>Food</td>
<td>10 - 19 %</td>
<td>33 - 43 %</td>
</tr>
<tr>
<td>Alcohol &amp; Tobacco</td>
<td>2 - 7 %</td>
<td>3 - 4 %</td>
</tr>
<tr>
<td>Clothing</td>
<td>5 - 9 %</td>
<td>6%</td>
</tr>
<tr>
<td>Housing</td>
<td>20 - 31 %</td>
<td>27 - 37%</td>
</tr>
<tr>
<td>Furnishing</td>
<td>5 - 8 %</td>
<td>4%</td>
</tr>
<tr>
<td>Health</td>
<td>1 - 6 %</td>
<td>2%</td>
</tr>
<tr>
<td>Transport</td>
<td>10 - 17 %</td>
<td>5 - 7%</td>
</tr>
<tr>
<td>Communication</td>
<td>2 - 3 %</td>
<td>2 - 3%</td>
</tr>
<tr>
<td>Recreation</td>
<td>5 - 15 %</td>
<td>1 - 2%</td>
</tr>
<tr>
<td>Education</td>
<td>0 - 2 %</td>
<td>1%</td>
</tr>
<tr>
<td>Hotel &amp; restaurants</td>
<td>4 - 10 %</td>
<td>1 - 2%</td>
</tr>
<tr>
<td>Misc.</td>
<td>5 - 15 %</td>
<td>1 - 3%</td>
</tr>
</tbody>
</table>

Source: HBS 1999, Eurostat and Statistical Office of Kosovo (SOK)

As indicated by the household income and consumption data for Kosovo in previous years there has been an increase in spending on transport of the household budget both in relative and absolute terms. Household expenses on transport covers several items e.g. purchase/lease, fuel consumption, repair, parking, fines, toll, registration. In 2005, household transport expenses amounted on average for Kosovo to € 352 annually, € 29 per month or € 1 per day.

Along with the increased economic activity and standards in Kosovo it is expected that transport will receive higher priority in the future and that private households will be more willing and able to afford extra resources on transport.

The following example illustrates a possible impact on the household expenses by included toll expenses in the budget. Based on the income and consumption pattern in 2005, and assuming that vehicle owners on average will spend 10 day per month on private toll roads (toll rate € 0.02 per km) and 30 km per day, the monthly toll budget would correspond to additional € 6 per month or about a 20 % increase in the household transport budget. Assuming that some of the toll roads will be ready available from year 2012 (toll rate € 0.025 per km), the amount of toll paid may likely correspond to the expected budgeted household transport expenses.

3.6.4 Traffic sensitivity when imposing toll and the impact of that sensitivity on total toll revenue

Charging tolls will reduce the traffic on a motorway, as some users will prefer the existing road rather than paying for using the new motorway. A reduction in traffic will likewise reduce the total toll revenue.
To make a rough estimate of the potential to use public-private financing techniques to contribute to the development of the Kosovo Motorway Programme, the Consultant used the EMME/2 traffic model developed as part of the COWI Two Axes Road Improvement Study to perform the future toll revenue calculations contained in section 3.4.5. The two axes model was NOT intended to form the basis for such calculations, nor is it likely to properly reflect the time and distance characteristics of the proposed motorway Routes 6 and 7 in comparison with the existing road network. Hence the results should be treated with care until they can be confirmed by an investment grade traffic and revenue study.

The sensitivity to changes in toll rates is indicated by the changes in the traffic levels on the new motorway segments. Following the recommendation of carrying out further surveys for Kosovo on the affordability and price elasticity, two model scenarios have been applied for the willingness / ability to pay for using the toll roads, respectively; high and low willingness to pay representing the two extreme situations - ref Table 3-13 below.

The remainder of this section is a summary of the methodology utilised to generate the revenue projections in section 3.4.5.

A toll rate of € 0.02 per km was assumed as indicative of the SEETO area and imposed into segments of the traffic model corresponding to Route 7. The (EMME/2) model was then run using both high and low willingness to pay data developed from the COWI Two Axes Study. No attempt was made to study the optimum toll level, or to divide users into representative classes.

When testing the high willingness to pay, there was an average decrease of 7% in traffic along Route 7 during the forecasting period. The traffic declines by between 2% to 14% depending on the segments and period of time.

When testing the traffic for the low willingness to pay, the average decrease in traffic is 72% corresponding to a decline of between 47% and 99% depending on the segments and period of time.

This scenario appears to indicate that during the period from 2012 to 2022, a very low percentage of the traffic may use the toll roads. The traffic volume will probably increase considerably after year 2022 if the broad economic and traffic growth assumptions of the model are reasonably correct ref. below Table 3-13.

In section 3.4.5 the Consultant suggests a potential range of borrowing that could be supported by Route 7 toll revenue of between € 500 and € 700 million. No explicit adjustment was made to account for the crudity of the modelling; however the Consultant did focus on the lower levels of the range, considering this to be indicative of the normal base case financial modelling focus on downside risk.
Table 3-13  Impact on traffic volume from an imposed toll rate of € 0.02 per km considering low and high willingness / ability to pay.

<table>
<thead>
<tr>
<th></th>
<th>Segments</th>
<th>7-1</th>
<th>7-2</th>
<th>7-3</th>
<th>7-4</th>
<th>7-5</th>
<th>7-6</th>
<th>7-7</th>
<th>7-8</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Daily traffic with toll - High willingness to pay</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Daily traffic with toll - Low willingness to pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td>68</td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td>2.348</td>
</tr>
</tbody>
</table>

Source: Consultants estimates based on traffic model EMME/2

3.6.5  Toll Rate Setting Risk

One of the most important elements of setting up a toll road is the choice of methodology to regulate the setting and adjustment of toll levels.

Should the Government decide that it has sufficient funds for development and operation of the Kosovo Motorway Programme then it may not make sense to toll the proposed motorways. However, even in this case it may be appropriate to charge tolls, as the tolls would form revenue source collected only from users of the motorway, thereby allowing a lowering of other road user charges or a redirection of a greater portion of road user charges towards other governmental needs.

In the more likely event that the Government of Kosovo will not have sufficient funds and therefore need to utilise the full range of revenue-generating options available to it, then the setting and regulating of tolls will become critically important.

The PPP type development options described in sections 3.4 and 3.5 require a high degree of certainty that a certain level of tolls will be applied for a sustained period of time. Private investors expect to be repaid, either from toll revenue or direct government subsidies or both. In the Kosovo context, where guaranteed long term financial support to a PPP project appears problematic, application of tolls is the only method available now that will ensure repayment of private investment.

However, tolls are almost never popular with the public, political pressures to reduce or eliminate tolls are frequent, and as can be seen from the Hungarian example described below and from the Irish government's recent decision to
buy out the existing M50 toll road developer, below these pressures can result in outcomes that can be extremely costly to the Government.

The Consultant advises that, concurrently with the investment grade traffic revenue study on Route 7, the Government should develop an appropriate toll regulation strategy. It is recommended that this be done in consultation with the on-call strategic advisor - see section 4.5. The regulations need be:

- well founded in Kosovo law (to avoid the Hungarian experience)
- sufficient to ensure the Government has overall control of the setting and collection of road tolls
- flexible enough to allow facilitate the specific needs of motorway concession or finance contracts as they arise
- and providing sufficient insulation of the toll regulation process from the political process.

### 3.7 Regional PPP Project Experience

#### 3.7.1 Introduction

The following provide a brief review of international experience from PPP projects with emphasis on the regional experience.

#### 3.7.2 REBIS Experience

Experience from countries in the Balkans\(^{16}\) has been examined in the REBIS transport study - Regional Balkans Infrastructure Study - Transport, 2003. A sub-component of the REBIS project\(^{17}\) looked into an assessment of toll road affordability in the REBIS countries and appropriate guidelines for the region's governments with respect to BOT implementation in the road sector.

#### 3.7.3 Toll levels on roads in the REBIS countries

The next table shows the existing toll roads in the REBIS region. There are no toll roads in Albania and Bosnia and Herzegovina. Although there are toll roads in FYRO Macedonia and Serbia and Montenegro, none of them are operated on a BOT basis.

Several toll roads exist in Croatia of which two are BOT operated. One of those is the semi-motorway in Istria. The other is a full concession toll motorway, from Rijeka to Zagreb.

---

\(^{16}\) Croatia, Albania, Bosnia and Herzegovina, FYRO Macedonia, Serbia and Montenegro

\(^{17}\) Carried out by COWI for EU.
Table 3-14   Toll roads in the REBIS countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Toll road</th>
<th>BOT</th>
<th>Pan European Corridor</th>
<th>Car toll EUR/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>Zagreb - Zupanja</td>
<td>No</td>
<td>X</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Zagreb - Bregana</td>
<td>No</td>
<td>X</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Zagreb - Krapina</td>
<td>No</td>
<td>Xa</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>ARZ (Rijeka - Zagreb)</td>
<td>Yes</td>
<td>Vb</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Zagreb - Breznicki Hum</td>
<td>No</td>
<td>Vb</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Vranostit - Gorican</td>
<td>No</td>
<td>Vb</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Ishkaj - Ypalon</td>
<td>Yes</td>
<td>No</td>
<td>Involves shadow toll</td>
</tr>
<tr>
<td>Albania</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FYRO Macedonia</td>
<td>Kumanovo - Gradsko</td>
<td>No</td>
<td>X</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Tetovo - Gostivar</td>
<td>No</td>
<td>VIII</td>
<td>0.02</td>
</tr>
<tr>
<td>Serbia and Montenegro</td>
<td>Belgrade - Glid</td>
<td>No</td>
<td>X</td>
<td>Foreign 0.075</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Domestic 0.05</td>
</tr>
<tr>
<td></td>
<td>Belgrade - Nis</td>
<td>No</td>
<td>X</td>
<td>Foreign 0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Domestic 0.04</td>
</tr>
<tr>
<td></td>
<td>Nis - Doljevac</td>
<td>No</td>
<td>X</td>
<td>Foreign 0.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Domestic 0.01</td>
</tr>
<tr>
<td></td>
<td>Belgrade – Stara Pazova –</td>
<td>No</td>
<td>Xb</td>
<td>Foreign 0.07</td>
</tr>
<tr>
<td></td>
<td>Shtq</td>
<td></td>
<td></td>
<td>Domestic 0.01</td>
</tr>
</tbody>
</table>

Source:  REBIS transport joint venture, Appendix 12 - Final Report - BOT, July 2003

As seen from above table, the toll level in Croatia ranges from € 0.03 to 0.05 per vehicle kilometre. For Macedonia the average level is between € 0.02 and 0.03 per km. The toll level is lower for Serbia and Montenegro ranging for domestic vehicles between € 0.004 to 0.01 per km. Foreign car owners are paying between € 0.07 and 0.075 per km depending on the specific toll road.

Below table show selected toll rates in Macedonia for different vehicle categories indicating a level for cars at € 0.02 - 0.03 per km. The toll charge for medium trucks is 2-3 times more than for cars and pickups.

Table 3-15   Toll charges for vehicle categories in FYRO Macedonia

<table>
<thead>
<tr>
<th>Selected Macedonian toll roads</th>
<th>Cat 1</th>
<th>Cat 2</th>
<th>Cat 3</th>
<th>Cat 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>km</td>
<td>cars</td>
<td>pickups</td>
<td>medium</td>
<td>large</td>
</tr>
<tr>
<td>M1 Petrovec-Veles</td>
<td>61,70</td>
<td>0.03</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>M1 Veles-Gradsko</td>
<td>87,87</td>
<td>0.02</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td>M4 Tetovo-Gostivar</td>
<td>54,72</td>
<td>0.02</td>
<td>0.03</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Source:  Macedonia toll rate statistics

Below Table 3-16 show the toll rates for the Belgrade - Nis Section in Serbia for different vehicle categories as well as for domestic and foreign vehicle
owners. The toll rates are indicating the same level as for Macedonia as indicated above.

Table 3-16  Toll charges €/ km for vehicle categories in Serbia (Belgrade- Nis Section)

<table>
<thead>
<tr>
<th>Cat 1</th>
<th>Cat 2</th>
<th>Cat 3</th>
<th>Cat 4</th>
<th>km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cars</td>
<td>0.02</td>
<td>0.03</td>
<td>0.06</td>
<td>50</td>
</tr>
<tr>
<td>pickups</td>
<td>0.02</td>
<td>0.05</td>
<td>0.10</td>
<td>83</td>
</tr>
<tr>
<td>medium trucks</td>
<td>0.02</td>
<td>0.05</td>
<td>0.10</td>
<td>94</td>
</tr>
<tr>
<td>large trucks</td>
<td>0.02</td>
<td>0.05</td>
<td>0.09</td>
<td>116</td>
</tr>
<tr>
<td>Foreign vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cars</td>
<td>0.02</td>
<td>0.03</td>
<td>0.07</td>
<td>142</td>
</tr>
<tr>
<td>pickups</td>
<td>0.02</td>
<td>0.03</td>
<td>0.13</td>
<td>181</td>
</tr>
<tr>
<td>medium trucks</td>
<td>0.02</td>
<td>0.04</td>
<td>0.14</td>
<td>207</td>
</tr>
<tr>
<td>large trucks</td>
<td>0.02</td>
<td>0.04</td>
<td>0.15</td>
<td>215</td>
</tr>
</tbody>
</table>

Source: Serbia official toll rates, July 2006

3.7.4 Hungary Toll Road experience (M1-M15 and M5)

In the early 1990s, the Hungarian government conceived an ambitious motorway construction programme, consisting of motorways in the Pan-European corridors: the M1-M15 (Corridor 4), the M5 (Corridor 4), the M3-M30 (Corridor 5). The M1-M15 and M5 were private investments. The M3-M30 was constructed by a wholly state-owned company under a concession, since the private sector judged corridor traffic to be too low for the project to be commercially viable.

The M5 concession was significantly different from the M1-M15 in that a state guarantee was part of the deal. A limited period (from 1998 to 2004) minimum revenue guarantee was conceded to the BOT operator, to fulfil its debt service obligations in the event of a traffic shortfall. It would appear that traffic build-up on the M5 was slower than anticipated and that there were fears that the project would encounter financial problems once the minimum revenue guarantee expires.

After opening of the toll road, residents around the parallel road protested because of the adverse impacts of the diverted traffic on the free road. Traffic on the free roads around the M5 increased by 30 percent as local residents and trucks from Ukraine and Turkey sought to avoid the M5 tolls. These complaints and the subsequent political pressures led the government to renegotiate the arrangements with the Concession company. The re-negotiation resulted in lo-
cal users being offered toll discounts and the government covering any resulting financial losses to the company.

Eventually the existing road toll system was cancelled as traffic levels were too low - consequently due to too high toll levels. Instead a simple ticket system was introduced with ticket options ranging from 3 days to 1 month.

- One of the main lessons from the Hungarian experience is in BOT procurement, risk allocation and deal structuring.

**Hungary Key learning points**

- As the Hungarian M5 project demonstrated, given the inherent difficulties in correctly forecasting traffic volumes, sustained and, when required, active government and political support is critical both in ensuring the continuation of a project but also in reducing its long term costs which can be increased through uncertainties and risk perceptions.

- M5 and M1 – M15 projects demonstrate the importance of travel / demand forecasting and the inherent difficulties in getting the forecasts right. Additionally they demonstrate the need for a degree of flexibility in the contractual and revenue provisions, which foresee the possibility of having to adjust revenue flows in respect of changing demand realities.

- The M5 project highlights the need for an appropriate allocation of risks between the parties and the important requirement of avoiding the total transfer of unmitigated traffic risk to the private party. This is particularly important in economies without previous PPP experience or on traffic corridors with no previous tolling experience.

- The M1 – M15 project demonstrates how, despite initial political support and strong economic justifications, a project can fail due to over optimistic traffic forecasts. However it also demonstrates the need to avoid developing transport projects in isolation but as part of a coherent strategy, which integrates PPP needs and characteristics, particularly financial viability. In this case the existence of a parallel road undermined the project’s financial viability.

**3.7.5 Horgoš-Požega highway concession in Serbia**

The transport sector is of critical importance to Serbia and Montenegro and the country’s geographical position makes it a key transit country for passengers and goods. It is crossed by two Pan-European Transport Corridors, namely **Corridor X** (Salzburg-Ljubljana-Zagreb-Belgrade-Skopje-Thessaloniki) and **Corridor VII** (Danube river and ports).

The Horgoš-Požega highway concession was agreed for a period of 25 years with the Serbian Government and included that the contractor was obliged to build 106 km long left hand carriageway of the Horgoš-Novи Sad highway, maintain 68 km of the Novi Sad-Belgrade highway and construct the 148 km long Belgrade-Požega highway. The Horgoš-Požega highway is part of a huge highway project to build a traffic artery to the Montenegrin coast.
The Horgorš-Požega highway concession agreement was based on an internal rate of return (IRR) of 14%, generally acceptable for the international financial institutions. It was further agreed that 35 percent of the concession income would be set aside for the development of the province’s traffic infrastructure.

Since the traffic volume assumed for the concession agreement was about 12,000 vehicles per day being also a required guarantee for the profitability of its construction. However, since the traffic did not exceed 5,000 vehicles per day; the concession agreement was questioned by the concessionaire and the lead partner of the consortium decided to withdraw. Due to the low traffic, to reach 14% return on investment would take huge state subsidies, which is very unfavourable.

The concession agreement for Horgorš-Požega highway in Serbia is useful in demonstrating the potential for failure if fundamental issues are not correctly addressed. In this case these include, amongst others, demand forecasts, cost control, coherent planning and ensuring sustained political support:

Key project risks:

- Insufficient traffic documentation/forecasts
- Ambitious procurement timetable
- First road concession in Serbia
- No government guarantee
- Real toll risk
- Political, inflation and exchange rate risks
- Low level of transparency of process

Lessons Learned from Serbia
IMF consultants attempted to persuade the Serbian Government that the biggest problem with concessions is the legislation which regulates them, and that individual contracts without proper legislative underpinning are a danger, as shown by the experience of Hungary and Croatia. In both countries the contracts were broken by the state, with the state in the end being liable for paying actual costs and in some cases expected profits.
3.8 Discussion of Development and PPP Options

3.8.1 Introduction
The Consultant was asked to examine a wide range of motorway development options and to consider the potential of utilising a wide range of private sector capacity, expertise and finance in support of development of the Kosovo Motorway Programme. Additional complication arose because of the uncertainties surrounding the short and medium term governmental budgetary possibilities for the Kosovo Motorway Programme. Given the uncertainties and the multitude of possible combinations, there is no way to clearly and logically arrive at an optimal solution.

The purpose of this section is to apply the Consultant’s experience to the problem, and attempt to provide some general guidance that is flexible enough to be useful in the short to medium term.

3.8.2 Advantages and Disadvantages of PPP Options
The following provides a brief outline (below table) of the advantages and disadvantages of the various PPP option proposed for involving the private sector in the highway development in Kosovo. Appendix 2 (Part 3) further elaborate on PPP option in the highway sector.
Table 3-17  Advantages and Disadvantages of PPP Options

<table>
<thead>
<tr>
<th>PPP Options</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation and Maintenance Contracts</strong></td>
<td><strong>Improved service and management.</strong> Offers the simplest kind of PPP arrangement and often useful in bringing about greater efficiencies and technological improvements - and sometimes a first step to a more wide-ranging PPP arrangement.</td>
<td><strong>Short duration</strong> require frequent renegotiations' (also an advantage where contracts needs adjustments)</td>
</tr>
<tr>
<td></td>
<td><strong>Short duration 1-5 year.</strong> The contract between the private operator and government is normally short allowing easier re-negotiation / termination.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Costs of toll operating system</strong> small allowing for minimal risk of private operator and that any debt related project will be simple to negotiate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Low to medium implementation requirements</strong> as the contractual setup is simple.</td>
<td></td>
</tr>
<tr>
<td><strong>Design Build Operate and Finance (DBOF)</strong></td>
<td><strong>Better value for money.</strong> If appropriately designed and managed, the cost of service delivered is based on experience, is lower than under traditional arrangements</td>
<td><strong>Complex PPP arrangements and high implementation requirements</strong> between public and private sector for design, construction, operation and financing.</td>
</tr>
<tr>
<td></td>
<td><strong>Better quality of services.</strong> Usually higher quality than achieved under traditional arrangements</td>
<td><strong>High Risk profile.</strong> The risks associated with such PPP arrangements tend to be many e.g. long contract 20-25 years, uncertainties about future traffic level, political stability, WTP.</td>
</tr>
<tr>
<td></td>
<td><strong>Faster project delivery.</strong> Typically faster delivery under PPP than under traditional arrangement</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>More project delivery.</strong> PPP models with private sector finance contribute to mobilise additional financing and may promote the accelerated implementation of further capital investments</td>
<td></td>
</tr>
<tr>
<td><strong>Asset Transfer Model (variant of DBOF)</strong></td>
<td><strong>Same as for DBOF</strong></td>
<td><strong>Value for money.</strong> If the amount/proportion (70-80%) of public asset transfer is too high the value of money aspects may be of concern.</td>
</tr>
<tr>
<td></td>
<td><strong>PPP accelerator.</strong> Transfer of public assets is a precondition for private sector finance and attractiveness as traffic and WTP is low at present. Allow the private sector company to utilise public assets to better recovery private investments.</td>
<td><strong>Long-term public budget commitment.</strong> The required long-term budget support may not be under consideration by GoK at this time.</td>
</tr>
<tr>
<td></td>
<td><strong>Same as for DBOF</strong></td>
<td><strong>Failure of further private sector involvement.</strong> There is a risk that the private sector company can/will not utilise the contractual right to continue expanding the corridor (expansion triggers). This will transfer the obligation of the continued corridor back to the GoK.</td>
</tr>
</tbody>
</table>
3.8.3 Avoid Over Optimism

There are some very aggressive development options described in section 3.3 above. With a well tested regulatory framework in place, with adequate planning and control structures in place and with sufficient experienced staff, the rates of development implicit in the larger faster options are possible. But it will take some time for Kosovo to reach this capacity to undertake large scale development.

In the Consultant’s opinion, Option 5 is not only over optimistic but also dangerous. Giving an inexperienced development organisation, carrying out two major tasks (Routes 6 and 7) at the same time risks spreading the available recourses too thinly. Poor results or outright failure in one of both tasks may result.

Option 4 focuses only on Route 7, but still requires the government to administer several major contracts within the motorway at the same time. No time is allowed to develop the government’s administrative control structure. Additionally, the shortness of the 6 year time frame is likely to result in too little attention being paid to the early phase planning, budgeting, environmental and spatial permitting and contract procurement & administration.

The Consultant further recommends that the Government avoids being distracted by unsolicited proposals that originate within the private sector. Unsolicited proposals may not fit within governmental development strategies. They typically come from companies with ties to a particular industry, such as developers, suppliers, and financiers, who spend their own money to develop basic project specifications, and then directly approach governments in an attempt to get the required official approvals. The existing procurement laws of Kosovo do not allow the acceptance of unsolicited proposals. It is best to channel unsolicited proposals into a competitive public procurement process, thus ensuring that government strategy is maintained, and simultaneously providing more transparency, competition and political legitimacy18.

3.8.4 Maintain Strategic Focus

While there is some conflicting opinion, there appears to be a strong sentiment in favour of, and substantive political effort being applied to, the speedy development of Route 7 as one of the most important priorities of Kosovo.

In the Consultant’s opinion, adopting Option E (see section 3.3.2) would not be keeping with a strategic goal to develop Route 7 as quickly as possible. Option 1 is essentially:

- a piece-wise road upgrade strategy for Kosovo's two key routes.
- project choice and timing predominately based on simple economic return on investment from reduced operating costs, but not taking into account direct economic benefits of construction spending, nor the secondary economic benefits to an economy that frequently occur from in-

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creased international traffic and spin-off development along motorway corridors.

If Route 7 is a strategic priority then focus is needed to:

- Maintain a reasonable pace of development. Too slow and the economic jump-start to the economy will not be realised. Too fast and money is wasted in inflation and outsourcing.
- Avoid improvements to competitive parallel routes (unless these are an explicit part of the development strategy, as for instance the improvements to existing Shtime – Suhareke road while new road segment 7-6 is being built – see Option 2, section 3.3.3)
- Avoid building new competitive parallel routes. The Third Prishtinë Ring Road has particular potential to interfere with the rapid development of Route 7.

### 3.8.5 Get the Initial Project Right

There is a general consensus that the first project should be in the vicinity of Pristina. Assuming that the Land Expropriation Law passed by the Assembly is made effective by UNMIK relatively soon, there is nothing standing in the way of the following items of work being commenced on the first project:

- Form the Planning Unit and Major Projects Audit Unit as described in sections 4.2 and 4.3.
- Commence in parallel the coordinated environmental consent procedure described in section 4.2.3, and the preparation of material for the first independent review and approval as described in section 4.2.4.

The Planning Unit should then ideally turn the project over to the Procurement Unit, after which it would be free to commence work on the planning of the second project. Similarly the Development Unit would be instituted and take over the first project from the Procurement Unit. Successive projects would be passed between the three motorway directorate units eventually resulting in two or three individual projects being in some stage of development at the same time.

However, there will likely be problems with and delays in the initial project. It is imperative that the initial project be completed and put into successful operation, even if that requires a redirection of resources resulting in delays in the preparation of future projects. Money for motorway development, whether it comes from the Kosovo Consolidated Budget, donors, private lenders or private developers will only be made available if the MTC is viewed as a “safe pair of hands”. In the development business you are exactly as good as your last project, so if the first major project doesn’t go well, it could be the last for a while.

It would be reasonable to start the planning phases of the initial project assuming it contained segments 7-3, 7-4, 7-5 and 7-6 (approximately 50 kilometres).
This would allow the possibility of completing the majority of Route 7 in a 10 to 15 year time frame. It is possible, likely even, that during the process of obtaining permit, audit approvals and finance that the initial project which actually commences procurement will be shorter than this.

Donors particularly may focus on smaller “pilot projects”. There is nothing inherently wrong with this. The overall financing plans can be adapted. Having successfully completed a shorter project, Kosovo would be in good position to argue that it had the capabilities to pick up the pace of development on subsequent projects.

3.8.6 Plan to Utilise PPP

According to optimistic arguments, donor finance will provide all the money necessary for motorway projects so there is no need to consider PPP and no reason to collect tolls. According to pessimistic arguments, traffic volumes are low, the ability of Kosovo citizens to pay tolls is low, the Kosovo budget can not bear a heavy burden of subsidies for motorway projects, and therefore there is an insufficient source of revenue to repay private sector participants thus making PPP inherently infeasible. Clearly there is a compelling case that PPP techniques are not appropriate financial drivers for the initial project, including:

- Low current non-tolled traffic volumes on both Route 6 and 7 (often under 10,000 AADT, only exceeding 20,000 immediately south of Pristine). Regional average toll levels of € 0.02/km. A common "rule of thumb" is that for a toll motorway to pay for itself based on a toll of around € 0.05/km the traffic level needs be about 20,000 AADT.

- Present uncertainties about the budget allocation intended for highway development along the priority corridors. In addition, the Government of Kosovo has not yet considered partial or complete revenue guarantee. Even if sufficient governmental support were available, there is another common rule of thumb is that when the total support requirement exceeds 50%, there are increasing value for money concerns. The preliminary calculations performed as part of the analysis of Option 2 (see section 3.3.3 and Appendix 3) tend to indicate that support requirements for a traditional BOT/DBOF project could exceed 80 % - hence the Consultant’s focus on Asset Transfer and Operational Contract methodologies.

- The present status talks and the uncertainties about the economic and political climate is part of the risk profile that might be transferred to the private sector. The private sector is likely to be unwilling to take high political or demand risks without effective governmental and perhaps multilateral guarantees.

- However, the Consultant believes that, skilfully applied, PPP techniques can make the difference between completing Route 7 within a 10-15 year timeframe provided finance is available versus a 15-20 year time frame. The revenue potential illustrated in section 3.4.5 is compelling. It is sufficient to fund a considerable length of new motorway. If captured by a toll
system and properly channelled towards motorway development, it is sufficient to allow the MTC to speed up development of the motorway programme in the medium term.

Therefore, the Consultant recommends that the motorway be planned as a toll motorway from the beginning based on availability of finance. This will have some impact on the development strategy of Route 7, and will require some modifications to interchanges. The advisory contract (see section 4.5(a)) to provide traffic and revenue and toll system analysis should be procured as soon as possible.

3.8.7 Which PPP Technique?

The decision on when and which PPP technique to utilise should be left until the budgetary/donor funding possibilities for the initial project are clearer. During this period, it is advisable to conduct systematic market sounding with private sector developers, toll road operators and lenders with PPP motorway experience.

Preliminarily however, the Consultant suspects that the use of BOT/DBOF techniques as part of in initial project (with or without asset transfer) are likely to be found less feasible on Route 7 due a combination of financial, procurement and administrative reasons. Route 6 is a more likely candidate for the BOT/DBOF technique.

The use of toll operation concessions (see section 3.4.4) on the other hand appears feasible if finance will be available for the Route 7 development, especially given their inherent flexibility in comparison with full fledged BOT/DBOF techniques. Even if the initial project ends up being very short, a short term toll operation concession could be placed on the project to allow tolls to be collected from the beginning. Considering a gradual built-out of Route 7, one or several toll operations concessions of similar or varying duration can be granted as the situation requires. Toll operations concessions are much easier to structure and faster to tender.

Provided donor and/or budget finance will be available, toll operation concessions will provide the MTC with an independent source of revenue that can be used to borrow for speeding up the completion of Route 7, or any other element of the Kosovo road system.
4 Institutional Framework for PPP in the Highway Sector

4.1 Introduction
This chapter examines the policy, administrative and legislative framework in Kosovo in relation to the motorway sector and the Government’s readiness to undertake larger scale traditional and PPP motorway development projects.

Throughout this chapter, the Consultant has focused on advice in support of the specific options (as set out in Chapter 3) for implementing Kosovo’s Motorway Programme. Thus the advice mixes together policy, administrative and regulatory aspects of PPP motorway development with that necessary using more traditional methods of project development.

Section 4.2 discusses policy matters relating to PPP. Appendix 2 contains synopses of, respectively, approaches to PPP policy and procedure adopted by select European governments, and histories of PPP projects in the motorway sector in various European countries and a brief outline of PPP options to be used in highway development.

Section 4.3 discusses administrative structures of the MTC in the context of delivering major traditional or PPP motorway projects.

Section 4.4 contains a synopsis of the results of a review of existing legislation, with additional details contained in Appendix 7.

Section 4.5 focuses on anticipated needs for future technical assistance.

4.2 Policy Framework

4.2.1 Introduction
It appears that some of the necessary policy framework for the implementation of PPP projects has been implemented in Kosovo, but this is largely in response to the privatisation of state-owned enterprises and development of specific projects in the mining, power generation and airport sectors. It does not appear that any over-arching PPP policy framework currently exists.
The Consultant found no evidence of broad goals to utilise the PPP development process in a consistent or concentrated manner across a wide range of sectors of the economy.

This, combined with traffic and revenue considerations discussed in Chapter 3, puts the need in the short term for an extensive PPP policy or bureaucracy to support motorway development in considerable doubt.

At the same time Chapter 3 does identify a potentially compelling need for selective use of PPP methodology in the medium term, to ensure that the strategic goal of completing development of Route 7 is successfully realised. This potential need makes it prudent to implement select PPP policies and procedures, and to put in place relevant contingency plans and project details, to ensure that PPP methodologies can be utilised efficiently if needed.

4.2.2  PPP strategy

Strong and sustained political support will be necessary to utilise PPP in the development of the Kosovo Motorway Programme.

One of the first actions necessary is to take the definitive decision at high political level that the PPP process will be used in the motorway programme when and where it proves beneficial. As discussed in section 3.5, there are some drawbacks to the use of PPP methodologies, and some existing plans and expectations may need to be modified to permit substantive use of PPP methodologies when needed.

If substantive donor finance becomes available soon, it will be easy to overlook the potential funding difficulties that might arise later that would benefit from use of PPP methodologies.

*It is recommended that a succinct PPP policy for the motorway programme be developed, formally adopted, and publicised by the Minister of MTC prior to the decision to develop the procurement methodology for the initial motorway development package. This policy needs be sufficiently detailed to ensure that the technical and contractual elements needed to allow eventual use of PPP methodologies are placed in the initial motorway development packages whether or not these first packages utilise PPP methods.*

4.2.3  Environmental suitability and sustainability

A key component of the policies of the EU and most major multilateral lending and donor agencies is that new development projects (both traditional and PPP) should be environmentally suitable and sustainable and be based upon the results of a public participation and consultation process.

The legislative underpinning, as described in section 4.4, of detailed environmental, spatial planning and public consultation standards and processes is in place in Kosovo.
The land expropriation law has been passed by the Assembly but not yet implemented by UNMIK, and the land acquisition process has not been tested. The acquisition of land for new highway construction will be an important issue for the success of both PPP traditional road network expansions. A particular danger is land price escalation once the public (or other state bodies) becomes aware of the Government’s detailed motorway plans. This problem is already evident to the MTC, which is currently refusing to release data on the location of the Route 7 motorway alignment in the Prishtinë region to avoid land speculation.

Multiple governmental permissions appear necessary before development can commence including: MESP (planning and environment), MoA (land use designation), Ministry of Mining (mineral approvals).

There may be an initial tendency to overlook the importance of environmental policy and the development of MTC procedures for its implementation, and instead to proceed rapidly to acquisition of land. This is unlikely to be successful for long, and experience suggests that there is a danger that there will be substantive delays in achieving necessary permissions and that MTC will have difficulty controlling costs related to permits, environmental mitigation, and land acquisition.

It is recommended that the MTC immediately begin development of environmental policies and procedures specifically focused on motorway projects, and consult and agree methods for interaction with the MESP.

These policies and procedures can be refined during the development of the initial motorway packages. Environmental consultation processes are normally very time consuming, and will affect the length of time necessary to develop individual projects. In this regard, the Consultant has proposed below one potential outline procedure.

Conceptual Coordinated Environmental Consent Procedure

It is recommended that a working group led by MTC is established that includes representatives of each relevant ministry and relevant advisors and/or technical support. This working group should be established as soon as possible. The main purpose of this team would be to:

- map out detailed steps necessary to obtain full approval to build new roads on new alignments;
- identify problematic areas and propose solutions;

It may be useful to issue an “administrative order” (Appendix 6, page A6-5, last paragraph under heading “1. Concession Law”), to allow the formation of a special “Road Planning Board” (potentially including representatives of PM’s Office, MTC, MFE, MoM, MESP, MoA, MoC, MTI). The remit of this board would be to provide centralised decision-making related to the planning, environmental mitigation measures, permitting and land acquisition aspects of strategic road corridors. While establishment of such a board is not technically necessary and may lead to some issues related to the remit of individual minis-
tries, such a formal board, even if only temporary, would likely be helpful in speeding the development of a stable and robust environmental consent procedure.

It may be useful for such a Road Planning Board to have a secretariat to oversee day to day business, and initially it should be headed or advised by someone with comprehensive legal and/or planning experience on major development schemes.

Figure 4-1 Statutory Permissions and Land Acquisition Process

4.2.4 Transparency, accountability and value for money

Appendix 2 contains synopses of the policy, procedure and administrative structures established in support of the PPP (and more traditional) development processes in the UK, Ireland and Holland. While these are complex and vary considerably between the countries, they are nonetheless designed to address the same set of general public policy concerns:

- Protection of the general public interest
- Clear demonstration of value for money for the public sector, and avoidance of undue benefits to the private sector.
- Fair and open competition and transparent public procurement procedures, thus ensuring open market access.
Adherence to the EU principles governing State Aid – over compensation for service rendered, unfair advantages provided to one player in market.

Countries may also use the PPP approval and management structures to address other issues as well. For instance, the UK approach has specifically focused on the development and maintenance of a domestic market for project finance lending and an after-market for equity holdings in operational PPP projects. The Irish approach has focused on development of a range of PPP contractual options and procurement procedures to optimize contract risk transfer to the needs of its various development programmes.

**Independent Review and Approval Structure**

It is common that major capital development projects are subjected to three feasibility reviews. These are normally conducted either by a different ministry than that which is promoting the project, or by an independent entity in the same ministry.

The first review normally takes place prior to the commencement of final design and preparation of procurement documents for the actual project (motorway). The components normally examined as part of such a review include:

- A conceptual design and cost estimate of the specific project being proposed.
- Determination of the major risk sharing provisions of the proposed design and development contracts. This often includes an examination of the probable minimum size and capability requirements of potential contractors, particularly when maximization of opportunities for the domestic design and construction sectors is a goal.
- Determination of the specific procurement methodology (e.g. open, restricted, competitive dialogue and negotiated procurement processes).
- Determination of the need for outside advice or support during the procurement and development process.
- Preparation of a risk-adjusted cost estimate for the project, including the likely timing of required governmental funding.

The general purpose of this review is to ensure that the proposed project is in line with broader governmental development policies, that the development process for the project has been properly thought through, and that the required funding will be available when needed. Often this first review concludes with a formal approval or non-approval determination.

Once a proposed project has successfully passed the first review, any necessary outside advice or support is hired, and the design and procurement documents are prepared. Then, just prior to formally commencing the procurement process, the second review is held. The components normally examined as part of such a review include:
A review of the final procurement documents and their risk transfer provisions.

Development of a detailed cost estimate, including adjustment for contract risk allocation. In cases where the contract includes an operational component, then a whole life cycle cost estimate is prepared.

Formal determination (based upon the risk profile contained in the risk adjusted development or whole life cycle cost estimates) of the maximum reasonable cost that it would be reasonable for the public to pay and still obtain proper value for money to the public. This step is often referred to as a “value for money analysis”. This analysis is normally kept confidential.

Formal decision to approve or not approve the proposed project to proceed to procurement.

Once a proposed project has successfully passed the second review, the procurement process is begun. If the project is being procured using competitive dialogue or negotiated procedures, then the procurement process may start before the second review, but the issuance of final tender documents is then made contingent upon the second review being “approved”.

The third review is conducted near the conclusion of the procurement process, once the proposed price and contract terms have been fixed, but prior to the signing of the contract. The components normally examined as part of such a review include:

Comparison of the initial versus the final contract terms.

Comparison of the final price and risk allocation structure against the value for money analysis formally determined during the second review.

The project is normally “approved” only when the final risk adjusted price is less than the adjusted value for money analysis. Sometimes, especially for strategic projects, the project can be approved even if the final risk adjusted price is over the adjusted value for money analysis, but this normally requires additional approvals from a higher level.

Once a project receives its third review approval, the development contracts may be signed and development commences. Often a fourth review is conducted after construction is complete and the project has been in operation for a period. The purpose of such a review is to check how the earlier estimates of construction and operations risk compared to the actual situation, in order to improve the ability to estimate risks for approvals of other projects in the future.

The Consultant recommends that a formal independent review and approval process be established and used on the Kosovo Motorway Programme.

4.2.5 Economic and institutional development

It will be important to the country that the investment of this money provide the best overall economic benefit to the country.
These economic benefits can be divided into two broad categories, the benefits of improved communication enabled by the existence of the motorway itself, and the benefits derived from the effort to develop the motorway system.

There is some tension between these two benefits, which is made clear by considering the various Route 7 development options contained in Chapter 3.

The Consultant recommends that the Government undertake an appropriate consultation process, and establish a policy for maximisation of the economic benefits of the Kosovo Motorway Programme.

This policy should properly balance the benefits of:

- quick completion of the motorway programme thus encouraging internal and cross border economic activity,

against the benefits of:

- devoting time, resources and money to growing a domestic design and construction sector,
- improving the ability of the MTC to develop major roadway projects using its own resources.

4.2.6 Standards and specifications

A preliminary design has been completed by others for Route 7 based largely on German standards. While it is possible to adopt German standards by proper contractual reference in the relevant design and construction contracts, this would become increasingly problematic over time.

The Consultant recommends that the MTC formally adopt an appropriate set of roadway design and construction standards and specifications for motorways. These can be based on those already drafted for Kosovo (although they will require some revision and clarification as discussed in Appendix 4 (A4.2)) supplemented by other European standards and codes of practice. All such standards and specifications should be in the Albanian language (with translation into English) and made available to the public.

4.3 Administrative Framework

4.3.1 Introduction

The MTC and GRD have limited capacity due to their very recent establishment and the lack of monies during the last eight years to fund anything beyond the most basic of planning, maintenance and development activities.

19 Motorway Vërmicë - Prizren - Prishtinë - Merdar, Final Road Design Report (BPI-Consult GmbH for MTC), August 2005

20 (Draft) Highway Standards for Road & Bridge Works (iC consensus/DDC for UNMIK), July 2004
As the MTC and GRD have had only limited opportunities to develop new infrastructure, there is a strong probability that institutional upgrading will be necessary to ensure that these entities can facilitate larger scale development using traditional methods. Planning and implementation of a successful PPP is somewhat more complex than a traditional project, and will require the addition of some additional skills and capacity.

The existing GRD, as currently staffed, only has the capacity and experience to undertake maintenance and minor improvement projects.

### 4.3.2 Motorway Directorate

There seems to be a general consensus within the MTC and the GRD that development of the proposed motorway projects (whether PPP or traditional) will require establishment of a new organisation focused solely on motorway development somewhere within the MTC structure.

In the Consultant’s opinion, this would be prudent, and would help to ensure that an increased focus on motorway development did not result in a loss of focus on routine maintenance of the existing highway system.

*It is recommended that the new body responsible for roads and the GRD should both report directly to the same individual within the MTC. This is prudent to ensure consistency across the entire road system and to avoid wasteful duplication or competition. Hence perhaps this new body could logically be named the “Motorway Directorate” or MD. The MD could be a transitional structure, with a reorganisation or merging of the MD and GRD taking place after the completion of the development of a majority of the Kosovo Motorway Programme.*

The Czech Republic has established in 1997 a Road and Motorway Directorate, under the Ministry of Transport and Communications, and is an example of an organization that has expanded its capacity over the years as part of the Czech road and motorway development programme. The organization fulfils a number of main tasks in the framework of its basic subject of activity:

- Management of motorways and roads
- Guarantees maintenance and repairs of motorways and roads
- Guarantees groundwork for determination of conceptions in the field of roads and motorways
- Guarantees realisation of approved transportation policy and conception in the field of roads and motorways, guarantees their development and territorial protection
- Co-operates with respective bodies of national authorities and provides groundwork for their activity

The road and motorway directorate has increased its staff base and number of regional offices over the years and at present there are 1,560 employees.
4.3.3 Sub-units of the Motorway Directorate

The MD may eventually develop three subsidiary units focused respectively on the planning, procurement and development phases of motorway projects. These sub-subsidiary units can be developed when needed, and will probably be initially resident within, and then spun off from, one of the technical support or international engineer contracts referred to in section 3.3.

4.3.4 Administrative interactions

During the planning phases of a motorway project, the Planning Unit of the MD would probably be tasked with:

- Management of the process of obtaining permits and buying land for each motorway development package, as set out in section 4.2.3.
- Preparation of support information and obtaining the “first” independent review and approval, as set out in section 4.2.4.

After completion of the above tasks the Planning Unit would pass the project on to the Procurement Unit of the MD, which would probably be tasked with:

- Preparation of procurement documents.
- Management of the procurement process.
- Preparation of support information and obtaining the “second” and “third” independent reviews and approvals, as set out in section 4.2.4.
- Concluding final development contracts.
- On complex PPP type projects, in which substantive legal, financial and commercial issues are expected to arise during procurement, the Procurement Unit might seek support in the form of a “chief negotiator” temporarily reassigned (seconded) from the MFE.

After completion of the above tasks the Procurement Unit would pass the project on to the Development Unit, which would probably be tasked with:

- Administration of development contracts, overall management and inspection of the design and construction of projects.
4.4 Review of Existing Legislation relevant to PPP in the Highway Sector

4.4.1 Introduction

The MTC is the state authority in charge of railway, road, sea, river, air, multi-modal and combined transportation. More precisely, it has prerogatives regarding the policies and strategy in the transport sector: (i) it creates the economic policy in the sector of transportation; (ii) it creates policies for the development of multi-modal and combined transportation.

Although they are as yet untried as regards a major road investment scheme, the Government has been mindful of EU policy in regards environmental sustainability and public participation in the development of major infrastructural projects laws in this regard are already in place and in-line with the Acquis Communitaire.

4.4.2 Legislative review

The consultant undertook a legal review of applicable laws. The main findings are summarised below, with full details of the review contained in Appendix 6 based on the following laws found relevant for PPP; they have been identified and reviewed:

Regulation no. 2004/4 - Law on Cadastre
Regulation no. 2003/30 - Law on Spatial Planning
Regulation no. 2001/6 - Regulations for Business Organization including formation, maintenance, and termination of personal business enterprises, partnerships, and corporations in Kosovo
Regulation no. 2004/37 - Law on Construction
Regulation no. 2003/24 - Law on Roads
Regulation no. 2006/27 - Law on Concessions
Regulation no. 2006/28 - Law on Foreign Investment
Regulation no. 2000/8 - Provisional Registration of Businesses in Kosovo
Regulation no. 2002/22 - Law on establishment of an immovable property rights register
Regulation no. 2003/9 - Law on Environmental Protection

**Concessions**
The Concession Law constitutes a solid basis for the implementation of concessions in the highway sector in Kosovo dated back in 2006. It is entirely based on the international best practice of the UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects. Pursuant to Regulation, the Minister of Transport and Communication is responsible to secure funding and organise concessions for road infrastructure.

However, given that such implementation requires the existence and efficiency of other laws and institutional arrangements, the effectiveness of the overall regime of highway concessions will depend on such external factors as well.

**Public Procurement**
The Public Procurement Law constitutes a solid basis for the award of non-concession PPPs in Kosovo. This law also applies for the award of works concessions. It provides for the principles of equality of treatment, non discrimination and transparency and the general use of open competitive procedures.

Construction and operation of a highway is not specifically mentioned as a "public service activity", but the Consultant believes that such activities would fall into this category. As such, they can be entrusted to a private operator based on "special or exclusive rights" (which, in the Consultant's view, includes concessions).

The Public Procurement Law provides that, if procurement will give rise to financial obligations which are to be satisfied from public funds of future fiscal years, the public contract shall contain a provision conditioning the enforceability of such obligations on the availability of funds for purposes of satisfying these obligations and in a sufficient amount. This provision can constitute a barrier to certain PPP projects, including highways, because the risk of default by the contracting authority is transferred to the private partner or the financial institutions. In most concessions/PPPs, when the contracting authority is not able to satisfy its financial obligations, this should constitute a default under the contract and the private party should be indemnified.
**Sector specific issues**

The Law on Roads is a relatively concise law which divides the responsibility for public roads between the MTC, responsible for Main and Regional Roads and the Municipalities, responsible for Local Roads.

This law provides for the possibility of toll collection, but provides that this issue should be regulated more in detail by the MTC.

The provision of the law that allows Municipalities and the MTC to contract with private operators should be clarified.

**Foreign Investment**

The Foreign Investment Law provides general principles related to foreign investment protection in Kosovo including fair and equitable treatment, non discrimination, authorities’ compliance with obligations, stability of investment regime, right to due process, free transfer of currency as well as utilisation of international arbitration (ICSID, UNCITRAL, ICC).

The Consultant notes however that all provisions related to expropriation and compensation in case of expropriation has been deleted from the Foreign Investment Law by the Regulation promulgating such law.

**Corporate**

The Company Law does not contain any provisions that may negatively impact the implementation of highway PPPs in Kosovo.

**Property rights**

Rights pertaining to immovable properties are registered with the Municipal Cadastral Offices. The Consultant is not aware how the cadastre system functions in practice, but suspect that, as in most countries in the region, not all immovable properties and rights attached thereto are properly registered.

**Construction**

The Construction Law and the Law on Spatial Planning divide the responsibility for the preparation of various plans (Spatial Plan of Kosovo, Municipal Development Plans, Urban Development Plans as well as Urban Regulatory Plans) as well as issuance of urban, construction and use permits between the Municipalities and the Ministry of Spatial Planning. Generally, the Municipalities are responsible for the issuance of permits. However, for main public roads, the Ministry of Spatial Planning is responsible.

Under the Construction Law, a construction permit expires if the construction does not start within two years from construction permit issuance.

The Consultant notes that the Law defines an “Infrastructure Plan” as a “plan presenting installations and existing buildings and planned underground and above-ground installations” inter alia in the field of transport, but does not provide further details related thereto.
The Construction Law should be clearer with respect to the possibility of foreign persons to carry out construction or to act as supervising engineers.

**Expropriation**

Under the Draft Expropriation Law, one of the valid grounds for expropriation is when the purpose thereof is *inter alia* to construct or enlarge public infrastructure including public roads.

The Draft Expropriation Law clearly defines the steps to be undertaken in the context of the expropriation (eventual preparatory works, expropriation procedure, compensation, etc.) as well as the bodies responsible for such steps.

The Consultant recommends that the time-period for revoking the expropriation decision for Main Roads Concessions/PPPs be extended to 5 years (where the works have not been initiated) in order to allow such complex projects additional time.

**Tolling**

It will be necessary in due course to develop more detailed regulations relating to tolling. Ideally tolling should be based upon usage (in the sense of both axle damage and kilometres travelled). These should take proper account of the detrimental affects of the Government taking too much of the “toll rate setting risks”. Additionally, it may be wise for such regulations to allow the Government to set certain wide inflation adjusted bands within which tolls must fall, while letting the actual toll rates be adjusted within the bands as dictated by the market (in the sense of maximisation of toll revenue).

### 4.5 Recommended Future Assistance

Following from the issues discussed in chapters 3 and 4, there is likely to be a considerable need for future technical support to the MTC during the early stages of development of the Kosovo Motorway Programme. In the Consultant’s opinion, items a), f), g) and h) should be funded as a matter of urgency. It also may make sense to combine items a) and g) into a single contract. The final decision regards need and exact timing of the remainder of the support needs could be left to a later date.

The potential assistance needs include:

- **a)** An on-call strategic advisory contract to MTC to assist it in routine strategic issues related to the development of the motorway programme. This does not need be a large contract, and it should be structured such that it could provide select strategic advice over a sustained period. Its focus should be on providing on-going strategic advice to the senior levels of the MTC. Its scope and timing should be flexible, and keyed to the actual development needs of the Kosovo Motorway Programme. Continuity of key individuals of high calibre is paramount and much can be accomplished in the early stages of regular but part time presence.
b) An investment grade traffic and revenue study in support of eventual tolling and potential toll revenue securitisation should be conducted if it becomes clear that tolling of the motorways may be beneficial. This is highly specialised activity; the tender should be restricted to those firms with a good recent track record of providing traffic and revenue advice in support of private financing of motorways of similar nature. The scope of work should include an initial non-investment grade analysis, on-call advice to the MTC in its decision making processes on the benefits of tolling, an option to extend analysis to a full investment grade revenue study, and optional on-call support during any PPP transaction negotiations. See Sections 3.4.4, 3.4.5, 3.5 for background.

c) It may be beneficial to provide planning, technical and toll revenue assistance in developing an alternative to the western side of the Third Prishtinë Ring Road that would allow development of the relevant land area without forming a competitive parallel route during periods when toll revenue was being pledged as collateral. The assistance could be packaged as a simple stand alone assessment report providing recommendations on how to facilitate the opening of the area adjacent to the proposed ring road while simultaneously developing Route 7 as a tolled motorway. It only needs be done in the case that MTC has difficulties in finding solutions to the competing needs of opening the land adjacent to the proposed bypass, and development of Route 7 as a tolled motorway. See Section 3.5.3 for background.

d) A transaction advisor should be provided to support the MTC in the event a complex PPP project is decided to be developed. It will be difficult to establish the optimum composition of or scope of work desired from the transaction advisor until additional strategic decisions have been taken regards the development of Route 7 and use of PPP methodologies. See sections 3.4 and 3.5 for background.

e) Engineer or independent engineer type contracts are likely to be required in support of whichever development options and packages for Route 7 are eventually identified (see in Section 3.3 for backup). The precise number and scope of such advisory contracts will depend upon future decisions on pace of development. These tenders should be restricted to major international consulting firms with the capacity to place large numbers of experience personnel in-country when required by the development plan.

f) Assistance in establishing a coordinated environmental consents procedure is probably needed as a matter of urgency. The scope of work should be focused on establishment of a detailed procedure for conducting all environmental and public consents required prior to development of a segment of new motorway. This will require extensive interaction with the MTC, MESP and other ministries. The tender should be restricted to companies with a demonstrated track record of developing related policy and processes for successfully guiding major motorway projects through a consents process that is in line with current EU stan-
g) Assistance in establishing a major project review process is probably needed as a matter of urgency. It is presumed that such review process is likely to be required by donors or IFIs prior to advancing funds on any major projects. This could be procured independently or appended to the strategic advisory process set out in a) above. Its scope of work should be focused on developing a simple procedural manual for performing independent reviews of major traditional and PPP development projects. See Section 4.2.4 for background.

h) Assistance in finalising a set of motorway design and construction standards for adoption in Kosovo of the specific legal and technical environment of Kosovo, and the likely contractual methodologies to be used in development of the motorway and major road improvement programme. See Section 4.2.6 for background.
5 Assistance in Publicising the Strategic PPP plan for the Highway sector

5.1 Introduction
The Consultant has provided a brief review of the international experience with PPPs in the highway sector and the success or otherwise of the different initiatives. This includes PPP projects carried out in neighbouring countries and how they may relate to the Kosovo context and which key learning points have been identified. Further reference, with details, is made in Appendix 2.

The Consultant has furthermore coordinated with the ECORYS technical assistance study on sources of revenue for financing road maintenance and rehabilitation.

Information has been considered in particular for its relevance to the aspects of Affordability and Willingness-to-Pay for the use of road transport in Kosovo and other countries in the region - ref section 3.6.

5.2 Public and private sector interest

5.2.1 Introduction
It is too early to indicate the level of interest from potential private sector developers, private lenders, toll road operators, multilateral lenders and donors. One Kosovo semi-state agencies have, however, already indicated an interest in participating in financing. There may also be pension funds and similar entities for which investments in infrastructure projects are an attractive proposition.

The Consultant had intended to perform some preliminary market sounding with potential private sector developers, toll road operators and financers. However, the Donor Conference originally expected to take place early in 2007 was postponed. The Consultant instead redirected this effort towards assisting the MTC and MFE in various preparations for contacts with the EU related to ongoing discussions on potential EU financing for projects in the Kosovo Motorway Programme.

The Consultant recommends that an extensive market sounding programme with the private sector be conducted during the planning phase of the initial
motorway projects. The participation of responsible local financial investors is useful in reducing political risk perception in foreign investors. It would be appropriate to contact these agencies during the market sounding process.

5.2.2 Donor assistance in Kosovo

The following provides some insight to the donor structure in relation to the infrastructure development in Kosovo. The purpose is to outline the donor assistance as well as their potential involvement in future infrastructure and highway development in Kosovo.

USAID has provided direct assistance for economic stabilization and recovery in Kosovo. A general policy is that in order to improve the economy, the existing institutions must be strengthened and new economic management institutions and policies put into place. While progress has been made in laying out the legal and regulatory framework for fiscal policy and administration, considerable work remains in areas such as revamping the commercial code to create a business-friendly market environment.

The broad strategy presented to donors by the EC and the World Bank in November 1999, highlighted three main objectives for reconstruction and recovery in Kosovo:

(i) Developing a thriving open and transparent market economy;
(ii) restarting public administration and establishing transparent, effective and sustainable institutions; and
(iii) mitigating the impact of the conflict and addressing the legacy of the 1990s.

Over 30 donor governments and international agencies have been involved in the reconstruction and development effort. The EU (Member States and EC) is playing a prominent role in Kosovo. It is by far the largest single donor in the province. The most active donors have been the EAR headed by the EC (€ 795.8 million disbursed from June 1999 to end-2004), the United States (€ 275.4 million), Germany (GTZ) (€ 147.1 million), and Japan (€ 140.2 million). About € 1.25 billion in capital investments has been committed by donors from June 1999 to the end of 2004, and over 1,400 km of roads have been rehabilitated.

In the past few years, donors have become increasingly focused on institution-building. This shift reflects the continued transfer of authorities from UNMIK to the PISG, and the emphasis placed in the Standards for Kosovo on strengthening local institutions, improving the economic policy capacity of Kosovo institutions, and strengthening the development of the public investment programme and budget management.

The EC / World Bank Joint Office have prepared updated financial summary tables on the status of donor assistance to Kosovo as of December 31, 2005.

The overall grant assistance reported by donors is as follows:
• Donor grant commitments for Kosovo development in 2003-2005 totalled € 769 million.
• An additional € 169 million is expected to be committed in 2006, compared to commitments of € 241 million in 2005.
• € 615 million are reported as contracted in the period 2003-2005.
• € 630 million are reported as spent in the period 2003-2005.

In addition to this grant financing, the EBRD and the EIB have / expect to provide lending to the Private Sector. Reported lending to the Private Sector in 2006 by the EBRD (€ 17 million) and the EIB (€ 20 million) will be for the development of Prishtinë International Airport J.S.C. and for Private Bank / Financial Institutions.

**Potential IFI funding within a PPP structure?**

It is understood that a number of institutions have expressed an interest in funding infrastructure projects in Kosovo including the World Bank IBRD and it's International Finance Corporation (IFC).

**Risks**

Kosovo is at a critical juncture in its political, economic and social development. The proposed Kosovo Interim Strategy represents a unique opportunity to enhance Kosovo’s longer term development prospects according to the World Bank. However, the strategy is associated with three types of risks – political-, economic- and strategy-specific – which need to be mitigated and carefully managed.

There are several important *strategy-specific* risks associated with a PPP structure in the highway sector in Kosovo. These include e.g.:

• The success of the proposed strategy is dependent on timely positive investor response. The strategy could prove unsuccessful if the private sector proves to be unwilling to invest in the highway sector owing to a general risk aversion to conducting business in a post-conflict setting, the status of Kosovo, concern about the readiness of Kosovo’s business and regulatory environment, or a specific lack of interest in investing in the transport sector.

Four factors should bolster investor interest and confidence:

• final resolution of Kosovo’s political status;
• the development of and implementation of EU standard social and environmental institutional and regulatory frameworks;
• World Bank Group and other IFI support for a transparent, professionally organised independent highway concession tendering process; and
• Early informed dialogue between the PISG and potential investors, including the IBRD and IFC and other IFIs.
In addition, the benefits of increased trade links between Kosovo and its neighbours fostered under the proposed strategy would also serve to considerably mitigate such risks.

**Various constraints on the donor funding**

When the EU assumes the leadership of the future international presence, there is a need to ensure that sufficient resources, based on appropriate burden sharing by all sources of finance, are available to facilitate the conditions for a successful intervention. Once the different costing elements are known more precisely, the Commission could prepare an overall financial package to be pledged at the forthcoming Donors’ Conference.

Following resolution of Kosovo’s status, we can expect financing needs to arise in relation to:

1. Kosovo's share of the Yugoslav debt in the wake of status;
2. Expenditure as a result of the status requirements;
3. Kosovo's economic development needs (including institution building and capital investments); and
4. The cost of the international presence.

There are serious challenges on both the fiscal and external accounts. A donor conference of April 2006 was largely successful in plugging a € 80 million hole in the budget for 2006-2007 combined. However, a medium-term decline in donor support is projected. The trade deficit is around 40 per cent of GDP, and Kosovo therefore relies heavily on a combination of remittances (about 17% of GDP) and foreign assistance (21% of GDP, excluding capital transfers).

Finally, efforts are made by bilateral and multi-lateral development finance institutions/agencies and regional organizations to harmonize procedures and business processes of development financing in order to improve aid effectiveness through aligning donor requirements and mechanisms by building systems and processes around existing strengthened country systems.

The success realized by the Coordination Group are perhaps best exemplified by common procedures and guidelines published – or in the process of being published – relating to various aspects of the project cycle, from appraisal to completion and beyond to the post-evaluation phase. The most important among these are the following:

- Guidelines for Project Appraisal.
- Guidelines for the Use of Consultants.
- Model Agreement for Consulting Services (Feasibility Studies).
- Model Agreement for Consulting Services (Design and Supervision).
- Standardized Roster of Consultants.
- Guidelines for the Procurement of Civil Works.
• Joint Review of Disbursement Procedures.
• Guidelines for the Post-Evaluation of Completed Operations.

5.3 Final Workshop
The Consultant organised a workshop in Prishtinë on the 14th of May 2007 where the main findings and recommendations of the projects were presented. The workshop was represented by about 30 participants from various stakeholder organisations in Kosovo (World Bank, MTC, GRD, MESP, MFE, EU/UNMIK, EAR, Municipality of Prishtinë). The workshop further gave the opportunity for participants to bring up issues that were found relevant in relation to the PPP process in the highway sector in Kosovo including:

• Conceptual and strategic issues related to highway development priorities
• Financial issues (budget, donor and private)
• Private sector attractiveness
• Institutional and organisations issues
• Legal issues including permits and land acquisition
• International experience and relevance for Kosovo

Among the main conclusions from the workshop were that:

• Kosovo is presently facing a low economic stage of development with partial political uncertainty due to the ongoing status talks.
• Traffic on the routes is at present low and cannot make it attractive to the private sector to be involved in highway financing without considerable government financial support. This is based on evidence of little affordability and WTP for using toll roads.
• Highway development along Routes 6 and 7 has potentially different timeframes determined by different financial scenarios for budget, donor and private finance.
• The administrative, institutional and legal framework in Kosovo is presently not fully prepared to support PPP arrangements and recommendations were made for various strengthening measures.
6 Conclusions and Recommendations

6.1 Conclusions

6.1.1 Present stage of Kosovo in relation to application of PPP arrangements

The Consultant has assessed the present stage of Kosovo in relation to its application of PPP arrangements and involvement of the private sector in financing of road infrastructure and highway development. The present stage is characterised by a number of aspects that shall be considered in looking for private sector finance and are at the same time considered as challenges in the short and medium term future.

- low traffic volumes on both Routes 6 and 7, although traffic volumes near Prishtinë is higher and might allow private sector involvement in the first stages of any PPP arrangements.

- Kosovo is presently in a relatively low stage of economic development although growth is looking promising in the short and medium term.

- Present uncertainties about the budget allocation intended for highway development along the priority corridors. In addition, the Government of Kosovo has not yet considered partial or complete revenue guarantee.

- The present status talks and the uncertainties about the economic and political climate is part of the risk profile that might be transferred to the private sector. The private sector is likely to be unwilling to take unnecessary demand risks at present and wait until both economic and political stability allows and adequate traffic levels may lower the risk profile.

- Present evidence about economic household income and consumption patterns indicates that there is a low level of affordability and willingness to pay for using toll roads which would have a negative impact on the potential revenue required to ensure sufficient economic viability for private financial involvement in PPP arrangements. Tests for
traffic impact for low WTP when imposing toll indicate that the traffic decreases on average by 72%.

- Some elements of the Route 7 motorway design have been completed, but less work has been done on preparing for public processes, obtaining permits or preparing the MTC to administer large scale development projects.

PPP arrangements are not a panacea to limited budget finance. When PPP should be considered in Kosovo will depend on a combination of many factors including the necessary strengthening of administrative, institutional and legal framework, political status, traffic volume, WTP and consequently an acceptable public view of value of money and adequate private sector attractiveness.

A cautionary view suggests that a PPP in the highway sector in Kosovo is unlikely to take place within the first five to seven years.

6.1.2 Administrative and Institutional Framework

Existing policy framework for major capital project development
Little work has been done to establish a policy framework to support the development of major PPP or traditional projects in the highway sector.

Administrative structures in the highway sector
The MTC has insufficient capacity at this point in time to undertake the development of major projects. The Consultant has made various recommendations that can assist in preparing and strengthening the administrative and institutional framework within the various ministries that will need be involved in major infrastructure development efforts. These include particularly: i) an enhanced focus on public processes and permits, ii) institution of an independent review and approval structure for major development projects (a central PPP unit), and iii) the development of a special unit within the MTC with responsibility for the development of new motorways (a Motorway Directorate).

The Consultant has provided detailed recommendations for potential future assistance contracts that would be beneficial in aiding the MTC in its preparations to begin development of Route 7.

6.1.3 Legal Framework

Generally the legislation supporting PPP and traditional development methods in the highway sector are in line with current international best practices. As this legislation is put into use, there is likely to be a need for some changes in the main legislation from time to time and also for the development of administrative orders to fill in detail. The Consultant has provided some recommendations in this regard.

The land expropriation law has been passed by the Assembly but not yet implemented by UNMIK, and the land acquisition process has not been tested. Impact assessment law and spatial planning requirements for new motorway development are in place, but untested. A primary recommendation of the Consultant is that an inter-ministerial team be charged with responsibility for inte-
grating the various legislative and regulator processes related to motorway development into a coherent, fair and timely process. Experience suggests that there is considerable risk of substantial delays in achieving necessary permits and that MTC will have difficulty controlling costs related to permits, environmental mitigation, and land acquisition.

### 6.1.4 Land, planning and permits

It is recommended that a team, collectively a "Road Planning Board", led by MTC is established that includes representatives of each relevant ministry and relevant advisors and/or technical support. This team should be established as soon as possible. The main purpose of this team would be to:

- set out detailed steps necessary to obtain full approval to build new roads on new alignments;
- identify problematic areas and propose solutions;
- provide centralised decision-making related to the planning, environmental mitigation measures, permitting and land acquisition aspects of strategic road corridors.

It is expected to be necessary for such a Road Planning Board to have a permanent secretariat to oversee day to day business.

### 6.1.5 Public and private sector interest

It is still too early to indicate the level of interest from potential private sector developers, private lenders, toll road operators, multilateral lenders and donors. One Kosovo semi-state agencies have, however, already indicated an interest in participating in financing. There may also be pension funds and similar entities for which investments in infrastructure projects are an attractive proposition.

It is proposed that further market sounding shall be conducted soon to better understand the needs of these entities in order to better plan the development of the Kosovo Motorway Programme.

### 6.1.6 Corridor Development and Application of PPP options

The Consultant has made a review of the highway investment plans in Kosovo and PPP investment plans in the surrounding region, and by the time of this report, the Government had already chosen Route 7 as its highest priority corridor. Considering the optimum locations for private investments within strategic corridors, e.g. where sufficient traffic volume exists near Prishtinë, the Consultant has proposed a conceptual finance plans for that corridor.

However, the choice of proper strategic development plan remains a difficult question. In large part this is due to the uncertainty as to future budgetary allocations to a motorway development programme, and uncertainty as to the political risk profile that might be transferred to a private investor. These uncertainties are affected by the Kosovo final status talks, which were ongoing
throughout this study. In addition, the task of devising a PPP strategy is complicated by the existing low traffic volumes and low level of economic activity in Kosovo.

Due to the uncertainties currently surrounding the size and nature of funding that would be available for use in developing new motorways within the Kosovo priority network, the Consultant looked at a range of development strategies linked to various budgetary scenarios. These are summarised below along with proposed PPP arrangements that are found suitable.

- Avoid over optimism. There are limits to what can be achieved in the short term. Focus on steady progress towards the goal, rather than speed.

- Maintain the strategic focus on finishing the entire Route 7 corridor. This may require considerable political effort. Normal development management processes and public pressure for select improvements will tend to divert attention towards the immediate and easily achievable. But the economic benefits of finishing the entire corridor are real.

- The initial project in the Kosovo Motorway Programme will probably be in the immediate vicinity of Prishtinë. It is critical to ensure that this first project is a success, which is not the same as saying its development should commence soon. A certain level of design has been prepared, and efforts at identifying land acquisition needs are in progress. There has been considerably less effort put into the normal public processes and permits that are required by Kosovo law and generally form pre-conditions to lending/grants for most donors/multi-laterals. Little effort has yet been put towards organising implementation teams to administer the development process for the first project.

- Plan for use of PPP methods from the beginning, but don’t expect to see the real benefits before the medium term. This means that Route 7 should probably be tolled. The benefits of PPP, when they do appear, are likely to be sizeable and have the potential to accelerate the completion of Route 7 or fund another priority project.

i) **Realistic development options** assume **longer implementation schedules** and recognise that funding may be limited and would come from a combination of public, donor and private sources:

**Option 1:**
Complete staged improvements over time to Routes 6 and 7 where and when traffic volumes warrant. (recommendations from the Two Axes Feasibility Study)

**Option 2:**
Develop an initial Route 7 project near Prishtinë; complete the entire corridor within a 20 year period.

These two development options represent scenarios where finance from budget, donor and private sources is limited and likely to be determined by economic and environmental justification (financial justification from private sector point of view).
Private involvement could be for operation and maintenance as well as financing a small pilot construction project.

The likely PPP arrangement for Option 2 assumes a small financial involvement of the private sector combined with a larger initial public (budgetary or donor support) in the early stages. The PPP arrangement, in particular for Option 2, is referred to as the Asset Transfer Model (ATM) where it is assumed that the public will transfer physical assets (motorway segments) into the concession agreement made with the private sector party.

The indicative return on private investment of the first stage motorway project segment 7-3 to 7-5 is found to be 8.5% after debt service. The indicative financial viability is regarded slightly lower than would normally be accepted by private investors considering various risk factors in this region.

Considering that Public Private Participation is a recent introduction in Kosovo and that the administrative, institutional and legal framework needs to be further strengthened to also support future PPP arrangements in the highway sector, smaller projects (Pilot Projects) with financial and technical involvement of the private sector is a general recommendation made in relation to setup of PPP arrangements.

Such pilot project would provide a good opportunity to test the suitability of private sector involvement and based on experience and recommendations from other countries involved with PPP, it is normally good learning process allowing the political and administrative systems to make necessary adjustments to the benefit of further private sector involvement.

ii) Optimistic development options assuming short implementation schedules and that full or partial donor finance is available:

Option 3:
Develop the entire Route 7 corridor over a 10 year period.

Option 4:
Develop the entire Route 7 corridor over a 6 year period.

Option 5:
Develop the Route 6 corridor from Prishtinë to the Macedonian border plus the entire Route 7 corridor within a 6 year period.

These options will call for significant political effort to secure the considerable donor and budget funds required for the development of option 3, 4 and 5 and do not look feasible in the short- to medium-term.

These three development options are not assumed to involve private finance for their planning and construction, and the potential PPP arrangement best suited for these would be private sector operation and maintenance contracts.
6.2 Recommendations

6.2.1 Overall recommendations
Public Private Participation is a recent introduction in Kosovo and at present stage it is premature to move to PPP transactions and focus in the short term should be on strengthening capacity of the administrative, institutional and legal framework including preparation for land acquisition (see specific recommendations below) to also in support of future PPP arrangements in the highway sector. This would further allow for necessary due diligence including traffic and WTP studies, market sounding, and defined country status, before the Government of Kosovo can move towards PPP projects.

Based on experience from other countries where PPP arrangements are newly established - it is generally recommended to begin with implementation of smaller projects (pilot projects) where financial and technical involvement of the private sector in PPPs is supported by the necessary administrative, institutional and legal arrangements.

Such pilot projects provide a good opportunity to test the suitability of private sector involvement and based on experience and recommendations from other countries involved with PPP, it is normally good learning process allowing political and administrative system to make necessary adjustment to the benefit of further private sector involvement.

Tariff and Revenue Study
The Consultant strongly recommends that the MTC obtain more precise data on the potential traffic revenue that could be expected from the tolling of the Kosovo Motorway Programme. It is recommended that MTC commission an “investment grade” traffic and revenue study of Route 7 in the very near future.

6.2.2 Legal Framework
The Consultant has concluded that the legal framework can support the administration of PPP arrangements, however the Consultant suggests following enhancements:

Law on Roads:
The provision of the Law that allows Municipalities and the MTC to contract with private operators should be clarified.

Law on Construction:
The Construction Law should be clearer with respect to the possibility of foreign persons to carrying out construction or to act as supervising engineers.

Law on Expropriation:
Recommended that the time-period for revoking the expropriation decision for Main Roads Concessions/PPPs be extended to 5 years (initiative has already been taken).
6.2.3 Policy, Administrative and Institutional Strengthening

PPP strategy
It is recommended that a succinct PPP policy for the motorway programme be developed, formally adopted, and publicised by the Minister of Transport and Communications prior to the decision to develop the procurement methodology for the initial motorway development package. This policy needs to be sufficiently detailed to ensure that the technical and contractual elements needed to allow eventual use of PPP methodologies are placed in the initial motorway development packages whether or not these first packages adopt PPP methods.

Environmental Suitability and Sustainability
It is recommended that the MTC immediately begin development of environmental policies and procedures specifically focused on motorway projects, and consult and agree methods for interaction with the MESP.

Conceptual Coordinated Environmental Consent Procedure
It is recommended that a working group led by MTC is established that includes representatives of each relevant ministry and relevant advisors and/or technical support. This working group should be established as soon as possible. The main purpose of this team would be to:

- draft detailed steps necessary to obtain full approval to build new roads on new alignments;
- identify problematic areas and propose solutions;

Independent Review and Approval Structure
The Consultant recommends that a formal independent review and approval process be established and used on the Kosovo Motorway Programme.

Economic and Institutional Development
The Consultant recommends that the Government undertakes an appropriate consultation process, and establishes a policy for maximisation of the economic benefits of the Kosovo Motorway Programme.

Standards and Specifications
The Consultant recommends that the MTC formally adopt an appropriate set of roadway design and construction standards and specifications. These can be based on those already drafted for Kosovo21 (although they will require some revision and clarification as discussed in Appendix 4 (A4.2)) supplemented by other European standards and codes of practice. All such standards and specifications should be in the Albanian language (with translation into English) and be made available to the public.

Motorway Directorate
There seems to be a general consensus within the MTC and the GRD that development of the proposed motorway projects (whether PPP or traditional) will

21 (Draft) Highway Standards for Road & Bridge Works (iC consultanten/DDC for UNMIK), July 2004
require establishment of a new organisation focused solely on motorway development somewhere within the MTC structure.

It is recommended that the new body responsible for roads and the GRD should both report directly to the same individual within the MTC. This is prudent to ensure consistency across the entire road system and to avoid wasteful duplication or competition. Hence perhaps this new body could logically be named the “Motorway Directorate” or MD. The MD could be a transitional structure, with a reorganisation or merging of the MD and GRD taking place after the completion of the development of a majority of the Kosovo Motorway Programme.

### 6.2.4 Corridor Development Options and application of PPP arrangements

Based upon analysis performed to date, it is recommended that:

- both Route 6 (south of Prishtinë) and Route 7 be candidates for future new toll roads;
- Realistic initial strategy for development of Route 7 (if sufficient funding is not available) be along the lines of Option 1 and/or Option 2 of which Option 1 reflects the sector priorities from an objective perspective.

These two development options represent scenarios where limited finance is available and project selection is justified from economic and environmental criteria. Private involvement could be for operation and maintenance as well as financing a small pilot construction project.

PPP arrangement for Option 2 is recommended to be along the Asset Transfer Model methodology requiring considerable budget support.

- conduct additional market sounding (beyond that performed in this report) with potential lenders and developers;
- delay strategic decisions about implementation of PPP methodology until after final status negotiations and establishment of initial donor finance expectations;
- put plans for the Third Prishtinë Ring Road on hold until funding plans are more developed.

**Fiscal Risk Analysis**

The long-term fiscal implications of proposed PPP arrangements needs further analysis to determine the budgetary risk of corridor(s) development. It is recommended that the PISG commence as soon as possible a fiscal risk analysis and management system as initial preparatory steps towards any PPP approach.

### 6.2.5 Technical Assistance

Following from the issues discussed in chapters 3 and 4, there is likely to be a considerable need for future technical support to the MTC during the early stages of development of the Kosovo Motorway Programme. In the Consultant’s opinion, items a), f), g) and h) should be funded as a matter of urgency. It
also may make sense to combine items a) and g) into a single contract. The final decision regards need and exact timing of the remainder of the support needs could be left to a later date.

The potential assistance needs include:

a) An on-call strategic advisory contract to MTC to assist it in routine strategic issues related to the development of the motorway programme. This does not need be a large contract, and it should be structured such that it could provide select strategic advice over a sustained period. Its focus should be on providing on-going strategic advice to the senior levels of the MTC. Its scope and timing should be flexible, and keyed to the actual development needs of the Kosovo Motorway Programme. Continuity of key individuals of high calibre is paramount and much can be accomplished in the early stages of regular but part time presence.

b) An investment grade traffic and revenue study in support of eventual tolling and potential toll revenue securitisation should be conducted if it becomes clear that tolling of the motorways may be beneficial. This is highly specialised activity; the tender should be restricted to those firms with a good recent track record of providing traffic and revenue advice in support of private financing of motorways of similar nature. The scope of work should include an initial non-investment grade analysis, on-call advice to the MTC in its decision making processes on the benefits of tolling, an option to extend analysis to a full investment grade revenue study, and optional on-call support during any PPP transaction negotiations. See Sections 3.4.4, 3.4.5, 3.5 for background.

c) It may be beneficial to provide planning, technical and toll revenue assistance in developing an alternative to the western side of the Third Prishtinë Ring Road that would allow development of the relevant land area without forming a competitive parallel route during periods when toll revenue was being pledged as collateral. The assistance could be packaged as a simple stand alone assessment report providing recommendations on how to facilitate the opening of the area adjacent to the proposed ring road while simultaneously developing Route 7 as a tolled motorway. It only needs be done in the case that MTC has difficulties in finding solutions to the competing needs of opening the land adjacent to the proposed bypass, and development of Route 7 as a tolled motorway. See Section 3.5.3 for background.

d) A transaction advisor should be provided to support the MTC in the event that it is decided to develop a complex PPP project. It will be difficult to establish the optimum composition of or scope of work desired from the transaction advisor until additional strategic decisions have been taken regarding the development of Route 7 and use of PPP methodologies. See sections 3.4 and 3.5 for background.

e) Engineer or independent engineer type contracts are likely to be required in support of whichever development options and packages for Route 7 are
eventually identified (see in Section 3.3 for backup). The precise number and scope of such advisory contracts will depend upon future decisions on pace of development. These tenders should be restricted to major international consulting firms with the capacity to place large numbers of experience personnel in-country when required by the development plan.

f) Assistance in establishing a coordinated environmental consents procedure is probably needed as a matter of urgency. The scope of work should be focused on establishment of a detailed procedure for conducting all environmental and public consents required prior to development of a segment of new motorway. This will require extensive interaction with the MTC, MESP and other ministries. The tender should be restricted to companies with a demonstrated track record of developing related policy and processes for successfully guiding major motorway projects through a consents process that is in line with current EU standards for environmental process and public consultation. See Section 3.3 and 4.2.3 for background.

g) Assistance in establishing a major project review process is probably needed as a matter of urgency. It is presumed that such review process is likely to be required by donors or IFIs prior to advancing funds on any major projects. This could be procured independently or appended to the strategic advisory process set out in a) above. Its scope of work should be focused on developing a simple procedural manual for performing independent reviews of major traditional and PPP development projects. See Section 4.2.4 for background.

h) Assistance in finalising a set of motorway design and construction standards for adoption in Kosovo taking account of the specific legal and technical environment of Kosovo, and the likely contractual methodologies to be used in development of the motorway and major road improvement programme. See Section 4.2.6 for background.
Appendix 1  Option 1 - Two Axes Study Results

The results of the Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo will be the major source used to determine a long list of potential projects. These projects have been recently assessed technically, economically and financially and they include priority project being part of the two road corridors (North - South and East - West) in Kosovo.

In 2005, a Kosovo Policy Paper for Multi Modal Transport was prepared for the Government of Kosovo. One of the prime objectives stated is to create links to the European transport network and - in line with this - to provide a priority road network linking the transport gateways to the areas of potential economic growth. Routes 6 and 7 are, at the present stage, defined by the Government of Kosovo as part of the priority road network.

Against this background, the two road axes (Routes 6 and 7) are considered of prime importance to the Government of Kosovo:

- **Route 6**: the Prishtinë – Blace (border with FYRO Macedonia) road (approximately 65 km) and the Prishtinë – Airport – Pejë – Montenegro border road (approximately 100 km).

- **Route 7**: the Vermice (border with Albania) – Prishtinë – Merdare (administrative boundary with Serbia) road (approximately 120 km)

The routes are shown in the figure below.

*Figure A1-1  Map of the main road network of Kosovo with indication of Route 6 (R106, M9 and M2) and Route 7 (M25) defined by the Government of Kosovo to be part of the priority road network*
These routes constitute the main links to the neighbouring capital cities and to the regional transport network in South East Europe. At the same time, they connect some of the main cities and economic centres within Kosovo.

The road segments on Routes 6 and 7 are graphically showed in Figure A1-2 below providing a "long list" of project alternatives along Route 6 and 7 of which technical options are specified for respectively upgrading of existing roads, motorways in existing alignment and new motorway projects.

*Figure A1-2  Identified road segment projects on Route 6 and Route 7*

In total, investments of around € 416.9 million are recommended on the two main road axes in Kosovo. Detailed recommendations for each of the four parts of the two main road axes are indicated below.

The road segments are divided into four different parts of the routes:

- northern part of Route 7: Prishtinë - administrative boundary with Serbia (M25)
- southern part of Route 7: Prishtinë - border with Albania (M25)
- southern part of Route 6: Prishtinë - border with FYRO Macedonia (M2)
- western part of Route 6: Prishtinë - border with Montenegro (M9)
Motorway alternatives are defined for Route 7, with potential toll options for road segments with sufficient future traffic volume - in particular near Prishtinë.

**Indicative appraisal of identified projects**

**Economic Analysis of identified projects**
The results of the economic analysis of the *Feasibility Study and Environmental Assessment for two main road axes in Kosovo* are indicated by the Internal Rate of Return (IRR) and the Net Present Value (NPV). The methodology considered for the economic analysis is:

- investment costs of alternatives and the reference situation
- operating, maintenance and reinvestment costs of the roads
- user benefits from time savings and changes in vehicle operating costs
- accident costs

The economic analysis is prepared for each of the defined 15 segments of the road axes following the principles of comparing the reference situation and the investment alternatives are defined as follows.

**Reference situation:** The reference situation is defined as maintaining the present roads as they are by bringing the roads up to their original design standard - surface, signing and marking etc.

**Investment alternatives:** The investment alternatives differ for the segments, but are limited to the 5 main options:

- High-class upgrade of existing 2-lane road (with climbing/overtaking lanes and with new 2-lane road bypasses where appropriate)
- Widening existing 2-lane road to 4 lanes (with new 2-lane road bypasses where appropriate)
- 2-lane road on a new alignment
- 2-lane road capable of being upgraded to 4-lane motorway on a new alignment
- 4-lane motorway on a new alignment

The following table provides an overview of the key methodological assumptions.
Table A1-1 Overview of key methodological assumptions for the economic analysis of identified projects

<table>
<thead>
<tr>
<th>Element</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall method</td>
<td>Cost-benefit analysis of factor prices based on welfare theoretical foundation.</td>
</tr>
<tr>
<td>Planning horizon</td>
<td>A period of 20 years after taking the new or upgraded infrastructure into use, which is assumed to be 2012. The lifetime of the investment is assumed to be 30 years and a scrap value for the road equal to the full investment is included in 2031.</td>
</tr>
<tr>
<td>Discount rate (real)</td>
<td>6%</td>
</tr>
<tr>
<td>Year of result (NPV-values)</td>
<td>2006</td>
</tr>
<tr>
<td>Price level</td>
<td>Fixed 2006-level</td>
</tr>
<tr>
<td>Time values</td>
<td>Based on other studies - estimated value of travel time in 2006; EUR 1.15 per hour for business travel and 0.37 for others</td>
</tr>
<tr>
<td>Vehicle operating and maintenance costs</td>
<td>Modelled in HDM-IV (Feasibility Study)</td>
</tr>
<tr>
<td>Costs of accidents</td>
<td>Based on other studies</td>
</tr>
<tr>
<td>Investment costs</td>
<td>Based on engineering analyses (Feasibility Study)</td>
</tr>
<tr>
<td>Real growth of GDP</td>
<td>2006: 3%, 2007: -1.6%, 2008: 2.5%, 2009-2020: 3.0%, 2021-2031: 4%.</td>
</tr>
<tr>
<td>Real growth in time values</td>
<td>Expected growth in GDP applied with an elasticity of 1 (hence time values grow at the same pace as GDP).</td>
</tr>
<tr>
<td>Real growth in costs of accidents</td>
<td>Expected growth in GDP applied with an elasticity of 1.0 (hence values grow at the same pace as GDP).</td>
</tr>
</tbody>
</table>

With regard to benefits generated from the economic analysis, the benefits from time savings resulting from maintaining, upgrading or new road construction is far the dominant factor for the economic viability of the analysed road segments.

The calculated time savings are mainly caused by the following factors:

- higher speed limits on the new road alternatives giving higher average travel speeds and thus time savings (e.g. a motorway with a speed limit of 120 km/h instead of an existing 2-lane highway at 80 km/h)
- new road alternatives with higher capacity than in the reference situation. If congestion exists in the reference situation, a higher average travel speed and thus time savings will appear in the alternative
- a shorter route with a new alignment giving a total reduction in travel time

Due to the expected traffic growth, congestion is foreseen on the majority of the reference roads in a future situation without improvements.
Traffic Projections

The estimated future traffic levels on the two routes are based several parameters including present traffic volume and expected population and GDP developments in Kosovo and neighbouring countries, expected reduction in border resistance and alternative road projects and project combinations22.

The traffic model is a classic 4-step model consisting of 1) trip production based on future population and economic activity in Kosovo and the neighbouring region, 2) distribution based on distances and time, 3) modal split model (cars represent 89% of road travelling) and 4) route choice based on capacity restrictions. The traffic modelling and cost-benefit analyses on the identified road segments are based on the assumption that the segments closest to Prishtinë are improved first. The output of the traffic model is calculated for the years 2012, 2022 and 2031.

Figure A-3 presents selected traffic volumes for year 2006. The highest traffic volumes are found on the sections nearest Prishtinë and volumes decrease towards the borders where the lowest traffic volumes are found.

Figure A1-3  Present traffic volumes on Routes 6 and 7 (AADT year 2006)

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22 Present traffic volumes on Routes 6 and 7 are based on the following sources:
- traffic counts from Kosovo Road Directorate 2002 - 2005
- manual traffic counts at 14 locations and classified by 8 vehicle types (May 2006)
- traffic counts from other previous studies in Kosovo
- info on the border crossing commercial trucks from the UNMIK Customs Service.
The gradual removal of the border restrictions was implemented in the model by using gravitation parameters. The resulting traffic volumes therefore do not have an equal growth rate on each of the road sections. The major relative changes can be found near the borders.

The sections with the highest traffic volumes will still be found in the area surrounding Prishtinë, but on other sections closer to the borders, the future traffic volumes can be expected to be higher than the traffic volumes on the most trafficked sections around Prishtinë in 2006.

The difference between the present situation in 2006 and the expected future reference situation in 2012 is shown in Figure A-4:

*Figure A1-4 Estimated traffic forecasts for the reference situation in 2012, 2022 and 2031 - AADT (PCUs) in each direction.*
Summary of cost-benefit analysis for identified road segments
In this section the results of the economic analysis are presented at an aggregate level for all segments. The table below shows the net present value (NPV) and internal rate of return (IRR) of the investment alternatives compared to the reference situation for each of the road segments. The table also shows a ranking by NPV of the best alternative for each segment across segments. The locations of segments are illustrated in above illustration.

Table A1-2 The net present value (NPV) and internal rate of return (IRR) for each of the segments, Million EUR, 2006 prices, discount rate 6%

<table>
<thead>
<tr>
<th>Segment number and name</th>
<th>Rank by NPV</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road M25, Prishtinë - Serbia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-1 Administrative boundary with Serbia - Podujevë</td>
<td>11</td>
<td>5.4</td>
<td>33.0%</td>
</tr>
<tr>
<td>7-2 Podujevë - Besi (R120)</td>
<td>3</td>
<td>61.0</td>
<td>12.4%</td>
</tr>
<tr>
<td>7-3 Besi (R120) - Prishtinë</td>
<td>7</td>
<td>21.2</td>
<td>9.0%</td>
</tr>
<tr>
<td>Road M25, Prishtinë - border with Albania</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-4 Prishtinë - Lipjan (QMI junction)</td>
<td>14</td>
<td>-6.6</td>
<td>0.4%</td>
</tr>
<tr>
<td>7-5 Lipjan (QMI junction) - Shtime</td>
<td>2</td>
<td>84.9</td>
<td>17.0%</td>
</tr>
<tr>
<td>7-4 / 7-5 combination, Prishtinë - Shtime</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7-6 Shtime - Suharekë</td>
<td>10</td>
<td>12.9</td>
<td>10.5%</td>
</tr>
<tr>
<td>7-7 Suharekë - Prizren</td>
<td>9</td>
<td>14.5</td>
<td>13.9%</td>
</tr>
<tr>
<td>7-8 Prizren - Border with Albania</td>
<td>13</td>
<td>2.4</td>
<td>13.6%</td>
</tr>
<tr>
<td>Road M2, Prishtinë - FYRO Macedonia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-5 Lipjan (QMI junction) - Ferizaj</td>
<td>1</td>
<td>85.2</td>
<td>15.1%</td>
</tr>
<tr>
<td>6-6 Ferizaj - Doganaj (R115)</td>
<td>4</td>
<td>41.1</td>
<td>17.9%</td>
</tr>
<tr>
<td>6-7 Doganaj (R115) - Border with FYRO Macedonia</td>
<td>6</td>
<td>23.7</td>
<td>13.7%</td>
</tr>
<tr>
<td>Road M2, Prishtinë - Montenegro</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-1 Border with Montenegro - Pejë</td>
<td>15</td>
<td>-8.2</td>
<td>-0.8%</td>
</tr>
<tr>
<td>6-2 Pejë - Klinë</td>
<td>12</td>
<td>4.2</td>
<td>26.4%</td>
</tr>
<tr>
<td>6-3 Klinë - Komorane</td>
<td>16</td>
<td>-49.1</td>
<td>-2.4%</td>
</tr>
<tr>
<td>6-4 Komorane - Fushë Kosovë *)</td>
<td>8</td>
<td>20.4</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

Note: The alternative with the highest NPV for each segment is in bold type if it is economically feasible. Results for non-feasible alternatives are grey and light blue.

*) It is assumed that the bypass of Fushë Kosovë has already been built in the reference situation.

From the table it can be concluded that the estimated economic viability between the two alternatives differs considerably for each segment.

In general, the smaller scale alternative 1 is the better investment for the assumed timing with "opening" of the investments by 2012 when looking only at
the economic return as calculated in the model, although segment 6-3 Klinë - Komorane and segment 6-6 Ferizaj - Doganaj (R115) are exceptions. For some key sections close to Prishtinë, both alternatives are good investments from an economic point of view. However, the larger scale investment in alternative 2 provides a relatively lower economic return than the more modest investment in alternative 1.

The IRR of the best alternative on each segment is high, with 12 of the 15 segments yielding an IRR higher than 6% and, hence, being economically viable with the proposed timing and discount rate. It is evident that the only segment where alternative 2 yields both the highest economic payoff and has an IRR above 6% is segment 6-6 Ferizaj - Doganaj (R115).

The results show that investments in new roads or extensions of the existing road from 2 to 4 lanes are generally profitable in the area closest to Prishtinë. This is the case for segments 6-4, 6-5, 6-6, 6-7, 7-2, 7-3, 7-5 and 7-4 / 7-5 together.

The two alternatives for segment 7-4 are not in themselves economically viable, which is probably due to the fact that the reference situation includes upgrading (giving more capacity and hence a higher travel speed) of the present road to a 4-lane road. However, if analysed together with segment 7-5, a motorway for the two segments becomes economically viable. This is a reasonable grouping, as the calculation for 7-5 assumes that 7-4 is also constructed as a motorway.

For segments 6-2, 7-1, 7-6, 7-7 and 7-8, the analysis shows that the suggested upgrading of the road is economically viable.

The analysed investments in segment 6-3 are not economically viable. However, the result for the 2-lane road in the new alignment may suggest that by postponing the investment it will become viable in a longer time perspective, as traffic volumes are expected to increase. Upgrading of the existing road has not been analysed, but the analysis of the other upgrading alternatives suggests that upgrading segment 6-3 is likely to be economically viable.

Finally, the analysed investment alternatives for segment 6-1 are both non-viable, which suggests that the traffic volumes on this part of the road network are too small to justify any investment at present. At the same time the investment costs are massive.

**Specific conclusions and recommendations of road segment packages**

In general, the factors taken into account to reach the conclusions and recommendations of the study are:

- economic return to the society of the investment
- traffic impact
- environmental issues
- long term future-orientated transport system impact
The timing of investments is assessed on the basis of the time of implementation and the maturity of the investment. Financial capacity, political factors and the implementing institutions’ ability to implement and maintain the investments have not been taken into account when deriving the study conclusions.

For two segments on route 6, the recommended alternative is not the economically most feasible one, but due to local environmental and safety problems along the existing alignment, the construction of a new road is recommended. Where existing roads pass through built-up areas, local environmental (air pollution and noise) and road safety problems will increase significantly in the future. Around all major towns bypasses have therefore been included in all alternatives, and on several segments new alignments have been proposed.

For new alignments it is important to avoid significant new environmental problems in the form of fragmentation of landscape and communities or destruction of important nature areas without being able to mitigate the impacts sufficiently. It is recommended that land reservations for new alignments along the whole length of routes 6 and 7 will be considered in spatial planning in Kosovo, even though all new alignments are not feasible up to 2012. It is crucial to ensure cohesion between future urban development and long term road investments.

For none of the recommended investments environmental issues are judged so serious that sufficient mitigation cannot take place, given that the alignments will be consistent with spatial plans.

The total investment package recommended for implementation by 2012 amounts to € 417 million. The table below presents the recommended investments:

<table>
<thead>
<tr>
<th>Recommended intervention</th>
<th>Investment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prishtinë - administrative boundary with Serbia (route 7)</td>
<td>Motorway close to Prishtinë, new 2-lane road between Podujevë and Besi and upgrade of existing road to the administrative boundary with Serbia</td>
<td>€ 132.8 million</td>
</tr>
<tr>
<td>Prishtinë - Border with Albania (route 7)</td>
<td>Motorway between Prishtinë and Shtime and upgrade of existing road for other parts of route</td>
<td>€ 133.4 million</td>
</tr>
<tr>
<td>Prishtinë - Border with FYROM (route 6)</td>
<td>New high standard 2-lane road between Prishtinë and Doganaj, and upgraded existing road to border</td>
<td>€ 97.5 million</td>
</tr>
<tr>
<td>Prishtinë - Border with Montenegro (route 6)</td>
<td>New high-standard 2-lane road from bypass at Fushë Kosovë to Komorane. Restoring design standards and smaller upgrading works on other parts of the route</td>
<td>€ 53.2 million</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>€ 416.9 million</td>
</tr>
</tbody>
</table>

Source: Feasibility Study and Environmental Assessment for two main road axes in Kosovo, COWI A/S, Dec 2006
The figure below presents the recommended investment for each segment - together with the estimated construction costs and economic result (internal rate of return, IRR).

The above investments are recommended to be completed by 2012. It is recommended, however, that some investment be completed already before this date. Additional investments in the two routes will also be required after 2012. Investments have therefore been categorised as follows:

- **fast track**: investments with high economic return and with few complications - the investments should be completed as soon as possible
- **2012**: investments with good economic return, but which require significant preparatory work - 2012 is the recommended target year
• **long term**: investments which will only be economically mature in the long term

The recommendations for each of the 15 segments are presented in the table below:

**Table A1-4  Long list of potential project alternatives from Route 6 and Route 7**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Investment Alternatives</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 7, Prishtinë - administrative boundary with Serbia (M25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-1 Administrative boundary with Serbia - Podujevë</td>
<td>Alt 1 Upgrade of the present 2-lane road</td>
<td>Fast track</td>
</tr>
<tr>
<td></td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>Long term</td>
</tr>
<tr>
<td>7-2 Podujevë - Besi</td>
<td>Alt 1 New high-standard 2-lane road prepared for motorway</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>Alt 2 Motorway on the same alignment as the new 2-lane road</td>
<td>Long term</td>
</tr>
<tr>
<td>7-3 Besi - Prishtinë</td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>2012</td>
</tr>
<tr>
<td>Route 7, Prishtinë - border with Albania (M25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-4 and 7-5 Prishtinë - Shtime</td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>2012</td>
</tr>
<tr>
<td>7-6 Shtime - Suharekë</td>
<td>Alt 1 Upgrade the existing 2-lane road</td>
<td>Fast track</td>
</tr>
<tr>
<td></td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>Long term</td>
</tr>
<tr>
<td>7-7 Suharekë - Prizren</td>
<td>Alt 1 Upgrade the existing 2-lane road</td>
<td>Fast track</td>
</tr>
<tr>
<td></td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>Long term</td>
</tr>
<tr>
<td>7-8 Prizren - border with Albania</td>
<td>Alt 2 Motorway (4-lanes)</td>
<td>Long term</td>
</tr>
</tbody>
</table>

| Route 6, Prishtinë - border with FYRO Macedonia (M2) | | |
| 6-5 Lipjan - Ferizaj | Alt 2 New high-standard 2-lane road | 2012 |
| 6-6 Ferizaj - Doganaj | Alt 2 New high-standard 2-lane road | 2012 |
| 6-7 Doganaj - border to FYROM | Alt 2 Widening of the existing road | 2012 |

| Route 6, Prishtinë - border with Montenegro (M9) | | |
| 6.1 Border with Montenegro - Pejë | Alt 1 Restore the existing road to design standards (reference alt.) | Fast track |
| | Alt 2 Upgrade the existing road | Long term |
| 6.2 Pejë - Klinë | Alt 1 Upgrade the present 2-lane road | Fast track |
| | Alt 2 2-lane new alignment | Long term |
| 6.3 Klinë - Komorane | Alt 1 Restore the existing road to design standards (reference alt.) | Fast track |
| | Alt 2 2-lane high standard road in new alignment | Long term |
| 6.4 Komorane - Fushë Kosovë | Alt 2 4-laning of new road - motorway | Long term |

**Source:** Feasibility Study and Environmental Assessment for two main road axes in Kosovo, COWI A/S, Dec 2006

Results of the financial analysis from the Two Axes Feasibility Report

The results of the financial analysis are presented below. They are presented for two cases:

• full recovery of the investment, operation and maintenance costs for a full motorway on Route 7.
• recovery of the operation and maintenance costs for a motorway on selected sections of Route 7.

Considering the applied toll level of € 0.02 per km, which is regarded as affordable in relation to the general level of income and the average willingness to pay for using toll roads, the financial viability for a 100% commercial toll road operator is illustrated below table. In the table, two scenarios for willingness to pay are tested. These scenarios should be seen as minimum and maximum cases for the willingness to pay.

**Table A1-5  Financial Indicators (net present value, NPV), financial internal rate of return, FIRR) for all costs included (investment, operation, maintenance costs) for toll level of € 0.02 per km. (discount rate 6%)**

<table>
<thead>
<tr>
<th>Segments</th>
<th>Low willingness /ability to pay</th>
<th>High willingness /ability to pay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Toll - € 0.02 per km</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIRR</td>
<td>NPV (million EUR)</td>
</tr>
<tr>
<td>7-1</td>
<td>N/A</td>
<td>-37.62</td>
</tr>
<tr>
<td>7-2</td>
<td>N/A</td>
<td>-123.71</td>
</tr>
<tr>
<td>7-3</td>
<td>N/A</td>
<td>-92.47</td>
</tr>
<tr>
<td>7-4</td>
<td>N/A</td>
<td>-51.77</td>
</tr>
<tr>
<td>7-5</td>
<td>N/A</td>
<td>-200.54</td>
</tr>
<tr>
<td>7-6</td>
<td>N/A</td>
<td>-446.72</td>
</tr>
<tr>
<td>7-7</td>
<td>N/A</td>
<td>-161.91</td>
</tr>
<tr>
<td>7-8</td>
<td>N/A</td>
<td>-156.16</td>
</tr>
<tr>
<td>All Segments</td>
<td>N/A</td>
<td>-1,270.90</td>
</tr>
</tbody>
</table>

The results of the table above demonstrate that a toll road-financed motorway in Route 7 is not feasible. Even in the scenario with a high willingness to pay, the financial loss is very big, in excess of one billion Euro.

In the table below, the case for recovery of operation and maintenance costs is shown for the central segments of the route, i.e. segments 7-3, 7-4 and 7-5. This case is chosen because these sections are found economically feasible.
Table A1-6  Financial Indicators (net present value, NPV), financial internal rate of return, FIRR)) for inclusion of operation and maintenance costs for toll level €/km. (discount rate 6%)

<table>
<thead>
<tr>
<th>Segments</th>
<th>Low willingness /ability to pay</th>
<th>High willingness /ability to pay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Toll - EUR 0.02 per km</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIRR</td>
<td>NPV (million EUR)</td>
</tr>
<tr>
<td>7-3</td>
<td>15.3%</td>
<td>3.68</td>
</tr>
<tr>
<td>7-4</td>
<td>N/A</td>
<td>-2.65</td>
</tr>
<tr>
<td>7-5</td>
<td>19.0%</td>
<td>6.37</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>7.4</td>
</tr>
</tbody>
</table>

Thus, it is possible to finance operations and maintenance of the central sections of a possible motorway on Route 7.

Traffic sensitivity and economic loss
Applying tolling will reduce the traffic on the motorway, as some users will prefer the existing road rather than paying for using the new motorway. These users will only obtain limited time savings and accident savings, as they will stay on the existing road. This will impose an economic loss and, hence, generate less benefit of the investment in the new motorway.

The sensitivity to changes in toll rates is indicated by the changes in the traffic levels on the new motorway segments. Following the recommendation of carrying out further surveys for Kosovo on the affordability and price elasticity, two model scenarios have been applied for the willingness / ability to pay for using the toll roads, respectively; high and low willingness to pay representing the two extreme situations.

When imposing a toll rate of € 0.02 per km, the traffic model (EMME/2) estimate for the high willingness to pay, an average decrease of 7% in traffic during the forecasting period. The traffic declines by between 2% to 14% depending on the segments and period of time.

When testing the traffic for the low willingness to pay, the average decrease in traffic is 72% corresponding to a decline of between 47% and 99% depending on the segments and period of time. This scenario indicates that during the period from 2012 to 2022, a very low percentage of the traffic will use the toll roads. The traffic volume will, however, increase considerably after year 2022, as the benefits from e.g. time savings on the toll road become more important, mainly due to capacity problems (traffic congestion) on the existing road(s).
Table A1-7  Impact on traffic volume from an imposed toll rate of € 0.02 per km considering low and high willingness / ability to pay.

<table>
<thead>
<tr>
<th>Segments</th>
<th>7-1</th>
<th>7-2</th>
<th>7-3</th>
<th>7-4</th>
<th>7-5</th>
<th>7-6</th>
<th>7-7</th>
<th>7-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3,200</td>
<td>8,640</td>
<td>13,431</td>
<td>15,582</td>
<td>10,055</td>
<td>9,574</td>
<td>6,466</td>
<td>4,330</td>
</tr>
<tr>
<td>2022</td>
<td>6,347</td>
<td>16,739</td>
<td>23,437</td>
<td>17,561</td>
<td>19,694</td>
<td>14,921</td>
<td>11,150</td>
<td>9,270</td>
</tr>
<tr>
<td>2031</td>
<td>14,303</td>
<td>32,171</td>
<td>40,253</td>
<td>21,543</td>
<td>37,519</td>
<td>23,791</td>
<td>17,114</td>
<td>15,743</td>
</tr>
</tbody>
</table>

Daily traffic with toll - High willingness to pay

| 2012     | 2,972| 7,955| 11,840| 13,774| 9,231| 8,698| 5,902| 3,908|
| 2022     | 5,934| 15,529| 20,201| 15,392| 18,541| 14,030| 10,581| 8,615|
| 2031     | 13,898| 31,380| 36,799| 20,488| 36,557| 23,193| 16,537| 15,229|

Daily traffic with toll - Low willingness to pay

| 2012     | 68   | 13   | 56   | 42   | 219  | 141  | 107  | 65   |
| 2022     | 2,348| 5,511| 6,784| 3,829| 7,064| 4,085| 2,738| 2,050|
| 2031     | 8,942| 19,134| 16,699| 7,699| 23,203| 14,402| 9,788| 8,928|

Source:  Consultant’s estimates based on traffic model EMME/2

Two Axes Report – Conclusions of Financial analysis

The report contains rough assessments of toll affordability and price elasticity. While further studies will need to be carried out before using tolling to finance new road infrastructure, the report’s results are sufficient for strategic planning.

The report’s general conclusion is that a concession toll road, operated on a strictly commercial (i.e. BOT) basis without any financial support from the Government or other sources, is not financially viable. However the report also concluded that, a concession toll road located on the central sections (sections 7-3, 7-4 and 7-5) is probably capable of covering at least the full costs of operations and maintenance and possibly some part of the motorway capital investment. Such a concept would, however, provide an economic loss and perhaps even make the investment unattractive from an economic point of view.
Appendix 2 Experiences on Public Private Partnerships in Highways

The present Appendix 3 provides documentation that supports issues discussed in the main report and is divided into three parts:

1) PPP experience from UK, Ireland and Nederland
2) PPP setup framework
3) PPP options

1) PPP experience from UK, Ireland and Nederland

Introduction

There are a number of different models of private sector participation in transport infrastructure. The International Finance Corporation (IFC) has been involved in financing such approaches for many years. Some of these forms can be characterized as “Public-Private Partnership” (PPP) in cases where they share risks between the public and private sectors. These are management contracts, lease contracts, concessions for existing transport infrastructure, and concessions for new “greenfield” transport infrastructure.

In all cases, the arrangement must be financially attractive to the private sector to be viable. But the degree of risk transfer to the private sector tends to increase progressively through these categories. As risk increases, the cost of debt and equity to the private sponsors will increase; the projected returns then need to be higher if the PPP is to be financeable. Public sector risk often remains substantial in transport concession agreements to facilitate the transaction at acceptable cost. The public sector risks are sometimes expressed through full or partial revenue guarantees but there are many other types and gradations of risk-sharing which can differ by project. It is important that standards for judging PPPs are not inclined against them compared to conventional public procurement, but any complex mix of public and private interests poses some specific issues which need to be considered:

- What are the objectives of the PPP?
- What are the chances that a PPP can actually be implemented?
- Is the PPP approach likely to provide best value for money?

Hence, the evolving nature of the PPP concept must be adapted to the individual needs and characteristics of each project and project partners. Further there is a need to expand knowledge and implementation capacity of this instrument. Another question to be tackled is how we define successful and useful PPP arrangements in the highway sector and those which do not lead to the expected benefits.

In order to answer this question this appendix first presents a brief review of selected international experience with PPP Projects in the highway sector, to be followed by an overview of different PPP options to be used in the highway sector.
sector. Finally, a brief elaboration on the success or otherwise of these different PPP models by focusing on a number of critical issues.

**Lessons for Success from Experiences with Structuring a typical Highway PPP scheme**

Since around 1992 concession-based transport projects have existed in EU Member Countries with revenues derived from payments by end-users, e.g. tolls. PPP arrangements appear particularly attractive for the new EU Member States of Central Europe given the enormous financing requirements, the large funding shortfall, the need for efficient public services, growing market stability and privatization trends creating a favourable environment for private investment. In this regard the support to the implementation of PPP projects, as it has been organised in selected EU countries, namely the UK, Ireland and the Netherlands, should provide inspiration for possible models for the organisation of support to PPP arrangements in Kosovo.

The UK has the most mature market for PPP projects and has been through several different stages of organising support to PPP arrangements. The Netherlands and Ireland have both recently formed arrangements to support PPP, with Ireland choosing a model with more formalised sanctioning authority at central level, whereas the central PPP unit in the Netherlands primarily acts as knowledge centre.

The three case studies each seek to provide an overview of how the support to PPP arrangement is organised, including which primary task the various bodies are responsible for.

**Key features of the institutional framework for PPPs in UK**

Expansion to a broader range of public infrastructure, combined with the introduction of payment by the public sector rather than end-users, started with the introduction of the “Private Finance Initiative” (PFI) in the United Kingdom, where PPPs have been more widely developed than anywhere else in the world. By the end of 2003, more that 600 projects had been signed under the PFI, with a capital value of more than 56 billion pounds. Based on break-downs by government departments, transport has accounted for two thirds of the value of PFI contracts, largely due to the London Underground and Channel Tunnel contracts. Overall PFI has accounted for about 15% of public sector capital investments since 1996, with the remainder carried out through conventional forms of procurement.

**Organisation of the PPP support in UK**

Since the launching of the PFI initiative in 1992, the organisation of support to undertake PFI/PPP deals has been changed several times to reflect the changing needs of the stakeholders.

In 1993, the Treasury set up a Private Finance Panel (PFP), an independent body comprising representatives from both the public and private sector. The main role of the PFP included:
to encourage greater participation in the PFI initiative by both public and private sectors;
• to stimulate new ideas;
• to identify new areas of public sector activity where the private sector could get involved; and
• to seek solutions to any problems that might impede progress.

Following the Labour party government's winning of the elections, a review of the PFI process was initiated which led to disbanding of the PFP in 1997. Instead a new Private Finance Taskforce was formed under the Treasury (corresponding to the Ministry of Public Finance).

The taskforce was to be the central focal point for all PFI activities across government. The taskforce was organisationally divided into two main wings: One dealing with policy questions and the other with projects. The projects team of the task force was designed to have a limited operation period (two years), during which time the department and agencies responsible for the PPP/PFI projects were encouraged to develop and enhance their own PPP/FPI skills. Project support (the projects team) has been taken over by Partnership UK and policy issues by the Office of Government Commerce, which was created to streamline governmental procurement in general.

An overview of the succession of the central units to support the application of PPP arrangements in the UK is illustrated in below figure.

Figure A2-1  Overview of the development in key institutions supporting PPP in the central government in the UK

In June 2000, the government launched Partnership UK (PUK) as the successor to the Treasury Taskforce Projects Team. The primary role of PUK is to act as
co-sponsor of PFI/PPP projects, providing commercial and project management skills from project design to financial close.

The public sector agencies implementing PPP/PFI projects are in no way obligated to engage the services of PUK. The government and departments drawing upon PUK's expertise have to pay for their services. This is typically done in the form of a success fee, meaning PUK is only paid upon the successful closure of a deal. In 2001, PUK became a public-private partnership itself; in the form of a joint venture between the private and public sector(s).

The stated aim of the Office of Government Commerce (OGC) established in year 2000 is to modernise procurement throughout government. Within the OGC, the Private Finance Unit (PFU) is responsible for developing and promoting PFI policy for public bodies.

In 1996, the Local Authority Associations established the Public Private Partnerships Programme (4Ps) covering England and Wales. The core objective of the 4Ps is to support local government with procurement of partnerships and projects. The key areas of work include

- Project support is the core area of work, and more generic support.
- Gateway reviews, which are an appraisal of procurement projects.
- Skills development, covering training and workshops.

The inter-departmental Project Review Group (PRG) chaired and administered by HM Treasury provides:

- Early assurance to local authorities of the availability of funding and the conditions;
- A clear indication to the private sector of the projects;
- A procedure to spread information about local authority projects in other departments.

The PRG follows a defined set of procedures and timetables for approving local authority PFI projects.

**PPPs and Institutional support in Ireland**

In August 1998, the Irish Government decided to set up a Central PPP Unit and to build up experience with PPP. The Central PPP Unit was established in the Department of Finance in January 1999 and, at the same time, a second unit was set up in the Department of Environment and Local Government (DoELG) with responsibility for promoting PPPs within local government sectors. PPP Units were subsequently set up in other government departments and in the National Road Authority (NRA).

The National Development Plan (NDP) 2000-2006 set a target of Euro 35 billion for privately financed investments in the Economical and Social Infrastructure Programme, a total of over 40 projects. These projects cover a wide range of sectors including road, rail, education, water and waste.
Organisation of the support for PPP in Ireland

According to the State Authority (Public Private Partnership Arrangement) Act, which was implemented in March 2002, the State Authorities, including local authorities, have the power to enter into PPP arrangements, and to form companies and enter into Joint Ventures for the purpose of PPP arrangements.

"The Interim Guidelines for the Provision of Infrastructure and Capital Investment through PPP", which was published by the Department of Finance in 2003, deals with the appraisal, planning, implementation and post-project review applicable for all public infrastructure projects. The guide also lists the main participants for the procurement of PPP projects:

- **The Sponsoring Agency** has overall responsibility for the planning and management of the project.
- **The Sanctioning Authority** is the person or body with authority to sanction expenditure.
- **Process Auditor** who is responsible for certifying that proper procedures have been followed.
- **National Development Finance Agency** where State Authorities must seek advice on financing
- **A project board** to manage the procurement of the project.
- **The Central PPP Unit** with the responsibility of leading and coordinating the PPP process.
- **The Interdepartmental Group** will identify projects where lessons have been learned.
- **The Informal Advisory Group** facilitates discussion on PPP related issues.

The Interim guideline also lists a number of requirements which all PPP projects must fulfil in order to ensure Value for Money:

- The undertaking of a Public Sector Benchmark (PSB).
- The preparation of an Affordability Cap by the Sanctioning Authority for each project.
- The carrying out of a formal "post-project review."

**The Central PPP Unit** in Department of Finance was established by the Government in January 1999 in order to lead, drive and coordinate the implementation of the PPP in Ireland within and across departments and agencies.

The primary task of the unit is to take the necessary measures to ensure that:

- PPP becomes a standard element of Government procurement methods
- a stream of PPP projects is developed and a sustainable dynamic PPP market is created
• Development of Generic guidelines for procurement of PPP projects.
• Implementation of communication and awareness raising programme.

Ireland has a number of sector specific PPP units in various departments, which are responsible for developing and procuring PPP projects, including the PPP Unit in Department of Transport, which is responsible for PPPs in Public Transport and Roads.

The first unit to be established was the PPP Unit in Department of Environment Heritage and Local Government (DoEHLG) in 1999. The main functions of the unit are:

• Preparation of policy framework documents, guidance notes and technical notes
• standardisation of procedures and contract documentation
• sponsorship of pilot projects
• provision of advice, training and support services for procuring agencies

The National Development Finance Agency (NDFA) was established on 1 January 2003 under the National Development Finance Agency Act, 2002. The main functions of the NDFA are

• To provide financial advice to State Authorities, including local authorities.
• To assess optimal financing for major infrastructure projects.
• To raise finance for projects.
• To create special purpose companies.

The legislation establishing NDFA places a number of obligations on local authorities.

• For all projects exceeding Euro 20 million they are obligated to seek the advice of NDFA on how best to finance the project.
• For projects involving the use of private finance, to provide NDFA with the opportunity at an early stage of reviewing the financing options including where appropriate, providing the funding itself.

The figure below presents the main features of the institutional framework for support of PPP in Ireland.
Figure A2-2  Main features of the institutional framework for support of PPP in Ireland

Institutional Framework for support of PPP in the Netherlands

The Netherlands started to use PPP models to finance infrastructure project in the beginning of the 1990s. In 1998 the Dutch Government identified a number of potential PPP projects and in 1999 the Government established a PPP Knowledge Centre in the Ministry of Finance. Since 1999 a few PPP projects have been realized in the Netherlands. In addition to this there have been a few regional / municipal PPP’s, incl. A59 the first PPP Road. Other PPP initiatives are under development.

Organisation of the support for PPP in the Netherlands

The Main participants in the procurement of PPP projects are: The PPP Knowledge Centre; the Departmental PPP Unit; and the Executing PPP Unit.

The PPP Knowledge Centre, which is part of the Ministry of Finance was established on 1 January 1999 and has the following functions:

- To acquire and disseminate knowledge about PPP from both the public and the private sector.
- To assist in the formulation of government policy on PPPs
- To suggest appropriate projects for PPP and to produce reports on the results of PPP
- To act as an advisory capacity
The PPP Knowledge Centre has conducted research on different PPP experiences in the Netherlands and has produced series of PPP Manuals.

Furthermore, the Ministry of Transport has established a regular Departmental PPP Unit, the objectives of which are to:

- Design long term PPP policy for the Ministry of Transport
- Provide Standardisation of procedures and contract documentation
- Carry out Value for Money Analysis.
- To provide advice, training and generally coach and monitor PPP projects.

Finally, the Executing PPP Unit has overall responsibility for the planning and management of the PPP process and also for sanctioning expenditure / signature of contract. However, the contracting authority can decide to establish a separate contract management unit. The Executing PPP Unit may be a Governmental Department, Local Authority or State Agency.

The figure below presents the key features of the institutional framework for support of PPP in the Netherlands.

Figure A2-3  Main features of the institutional framework for support of PPP in the Netherlands

(1): The PPP knowledge centre may provide expert support to design and procurement of PPP arrangements but the PPP executing agencies are not obliged to seek the advice of the Knowledge centre.
2) **PPP Setup Framework**

The below provide international PPP experience on policy and organisational issues that could be a likely setup for PPP units in Kosovo.

**Responsibilities between the key public stakeholders of a PPP project.**

The table below provides a stylized division of responsibilities between the key public stakeholders for a PPP project.

As in other countries, the actual delineation of individual responsibilities will develop through the development and implementation of a number of PPP projects. An Inter-ministerial Committee could have a key role in solving the disagreements between the key stakeholders on the actual division of responsibilities which will inevitably evolve as pilot projects are being developed and implemented.
<table>
<thead>
<tr>
<th>Project Cycle</th>
<th>Contracting authority</th>
<th>Sanctioning authority</th>
<th>Sector PPP units</th>
<th>Central PPP Unit</th>
<th>Inter-ministerial Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre project</td>
<td></td>
<td></td>
<td>Promote wider use of PPP in sector and develop sector specific best practise</td>
<td>Promote wider use of PPP and related best practise</td>
<td>Establish agreement on division of responsibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Act as secretariat for the Inter-ministerial Committee</td>
<td>Establish definition of PPP projects of national interest</td>
</tr>
<tr>
<td>Project identification</td>
<td>Identify project, perform initial due diligence, develop procurement strategy</td>
<td>Provide assistance to Contracting authority</td>
<td></td>
<td>Provide guidance to contracting authority</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Assist in determining procurement strategy for pilot projects</td>
<td></td>
</tr>
<tr>
<td>Project appraisal</td>
<td>Perform appraisal and make recommendation to Sanctioning authority</td>
<td>Confirm coherence with sector objectives</td>
<td>Provide assistance to Contracting authority</td>
<td>Provide guidance to sanctioning authorities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Receive copies of appraisal reports for all projects</td>
<td></td>
</tr>
<tr>
<td>Design of PPP arrangement and agreement</td>
<td>Develop PPP structure, and tender documents</td>
<td>Provide assistance to Contracting authority</td>
<td></td>
<td>Assure coherence with best practise and sound fiscal management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Assist in developing PPP structure and tender docs for pilot projects</td>
<td></td>
</tr>
<tr>
<td>Procurement and contracting</td>
<td>Manage procurement process and negotiate a contract</td>
<td>Provide assistance to Contracting authority</td>
<td></td>
<td>Approve all projects above a minimum threshold and all projects</td>
<td>Approval of all PPP projects of national interest to assure the coherence of the investments in public-private partnerships with the public investments programmes for different activity sectors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Make recommendations to the Inter ministerial committee</td>
<td></td>
</tr>
<tr>
<td>Operations and monitoring</td>
<td>Monitor the operations under the contract</td>
<td></td>
<td>Collect best practise and lessons learned</td>
<td>Report project results to inter ministerial committee and public</td>
<td></td>
</tr>
</tbody>
</table>
Key observations from setting up PPP units in other countries
A number of observations relevant for forming a supporting institutional framework for application of PPP in Kosovo could be drawn from the experiences described by the country examples in Appendix 2. Main observations include:

- The role of a central PPP units changes as the market for PPP develops; initially focusing on creating understanding and acceptance of the concept but at a later stage it will typically focus more on establishing the necessary skills in government and make implementation arrangements more efficient.

- A typical set-up is a central PPP unit responsible for general policy issues and to some extent staffed with expertise in project delivery. This is typically complemented with sectoral PPP units. Responsibility for project delivery remains with sector departments/agencies, with differing level of sanctioning authority at central governmental level.

- Staff skills are important and required skills will differ from typical public sector staff. PPP units have typically recruited staff from the private sector to get the proper representation of commercial skills, project management skills and similar competencies.

- The PPP task forces were all charged with promoting the PPP approach, adoption of good practices, development of standards and guidelines, etc.

  ⇒ however, the task forces were not the primary drivers for the introduction of PPP – they implemented policies promoting greater reliance on private finance

  ⇒ There needs, thus, to be a political commitment behind the work of the PPP task force – a political champion promoting the approach and a supportive policy

- Key design issues for the establishment of a central PPP unit seem?? to include:

  ⇒ Level of staff to support project development - to what extent shall the central PPP unit be able to support project delivery,

  ⇒ Role in implementing pilot projects - the further development of PPP would presumably best be supported by the implementation of a set of pilot projects - which role should the central PPP unit have in relation to selection and supporting such schemes,

  ⇒ Level of authority at central level - should the central PPP unit (or other central bodies) have formal authority in regard to whether project should proceed as PPP and under which conditions.
Ireland Key learning points
The Central PPP Unit in Department of Finance was established by the Government in January 1999 in order to lead, drive and coordinate the implementation of the PPP in Ireland within and across departments and agencies.

The primary task of the unit, as outlined in the Framework for Public Private Partnerships launched by the Minister for Finance in November 2001, is to take the necessary measures to ensure that:

- PPP becomes a standard element of Government procurement methods
- a stream of PPP projects is developed and a sustainable dynamic PPP market is created in Ireland in the long term
- Development of Generic guidelines for procurement of PPP projects.
- Implementation of communication and awareness raising programme lead by the Central PPP Unit and involving the relevant social partners.

Nederland Key Learning points
The PPP Knowledge Centre, which is part of the Ministry of Finance was established on 1 January 1999 and has the following functions:

- To acquire and disseminate knowledge about PPP from both the public and the private sector
- To assist in the formulation of government policy on partnerships between the public and private sectors
- To suggest appropriate projects for PPP and to produce reports on the results of PPP
- To act as an advisory capacity

Overall institutional set-up
Before discussing the specific role and responsibility for a central PPP unit it will be necessary to have a picture of the overall organisational set-up for PPP delivery that will be in place in the country. However, a flexible approach regarding the allocation of roles and responsibilities of different authorities/public bodies is probably of benefit.

As seen from the institutional framework for supporting PPP in the UK - ref above and Appendix 2, the organisational models, as well as roles and function, of the central PPP unit have changed over time along with the development of different projects. One could distinguish between three main phases in the development of a PPP programme:

1) initial programme development,
2) roll-out of the programme, and
3) PPP fully developed as a standard form of procurement of services.

The key challenge of the initial phase of developing a PPP programme would include:

- Establish and develop the preliminary structures for supporting the PPP development - this would, in particular, concern PPP units/task forces which may give momentum to the development of policies and gather experiences;

- Identify and implement a number of strategic pilot projects that may serve to test applicable methods, identify main barriers, demonstrate feasibility and contribute to building capacity;

- Securing adequate resources. This will not only mean budgetary resources to support programme development but also that of attracting and maintaining personnel resources with proper qualifications within the various organisations.

Key public stakeholders involved in the PPP procurement process

The PPP procurement process involves, like any other public procurement process, a number of principal roles/functions, e.g. the body that initiates the project, the authority(s) that must approve various elements of the project etc. The exact labelling of these principal roles may differ but it will be relevant to identify at least the following:

The project sponsor (or Contracting Authority) is the party that has the overall responsibility for planning and management of the project. This may be a ministry, local authority, or some agency under these. The Contracting Authority would typically be responsible for the appraisal and assessment of the project and for following applicable procurement procedures.

The Sanctioning Authority is the person or body that has to sanction expenditure and is thus responsible for determining and allocating resources for specific projects. The level at which sanctioning is required may depend on the type and scale of the project and more than one body may have to sanction the expenditures. It may be a line department, a local or regional authority or the Ministry of Finance and Economy.

A project board will typically be established by the Sponsoring Agency to manage the procurement of the project. It is suggested that a person from the central PPP unit is present on the project board in the early PPP projects.
A **central PPP unit** at the MFE often take care of the general framework, market development, guidelines, etc. Also in the early phases of a PPP programme a central PPP unit should be close involved in the PPP design and procurement process.

### Typical PPP unit in the Ministry of Finance and Economy

A proposed PPP unit in Kosovo to be established at the MFE will have the following responsibilities:

- Elaboration of a PPP policy
- Implementation of PPP projects
- Development, promotion and implementation of PPP guidelines
- Juridical verification in PPP procurement
- Technical-economical evaluation of proposed PPP projects
- Technical, juridical and financial assistance to public authorities that initiate PPP projects
- Accumulation of experiences and best practises
- Training of relevant public authorities
- Promotion of PPP within the public and private sectors
- Annual reports on the progress of PPP in Kosovo
- Secretariat for the Inter-ministerial Committee for approval of PPP projects of national interest

A **national coordination committee** can ensure the coherence of the investments in public-private partnerships with the public investments programmes

### Inter-ministerial Committee

It is proposed that an inter-ministerial Committee for the approval of the PPP projects of national interest is created within the MFE. This may help to assure the coherence of the investments in public-private partnerships with the public investments programmes for different activity sectors. The inter-ministerial Committee is expected to include representatives from:

- The Ministry of Finance and Economy
- The Ministry of Transport and Communication
- The Ministry of Environment and Spatial Planning
- The Ministry of Public Services
- The Ministry of Agriculture, Forestry and Rural Development
- The Ministry of Trade and Industry
- The Ministry of Local Government

The main responsibilities will be:

- analysis of the project initiatives promoted as public-private partnership
- approval of the investments achievement in public-private partnership
for different activity sectors. This will typically be set up as an inter-ministerial Committee for the approval of the PPP projects of national interest.

**Sectoral PPP units** can be made responsible for the developing sector specific policies, more concrete assistance to project design etc. There would be no fixed form for how the sectors should organise their PPP units or how these should be involved in the design and procurement process. This should be up to the individual sectors/ministries/local authorities to find the most appropriate organisation.

Often PPP units that may support the local authorities in developing and implementing PPP arrangements. This PPP unit should mainly be under the management and origination from the local authorities. The form and extent of representation from relevant central ministries must be decided. It does not appear warranted to establish PPP units in the central ministries to assist local sector PPP arrangements.

A special issue concerns the **PPP unit's relation to the regulatory authorities**. During the implementation of the PPP arrangements, the public authorities have a regulatory role. In a contractual PPP arrangement, the key regulatory instrument is the PPP contract. The contract should, among other issues, stipulate:

- the services to be delivered;
- how payments to the private partner are determined including the procedures for price adjustment;
- how unforeseen events should be handled; and
- how conflicts should be resolved.

The public body that shall be responsible for the regulator of the private partner is thus the Contracting Authority which has the responsibility for managing the contract and ensuring that the private partner fulfils the contract.

It is thus important to carefully consider how a PPP arrangement fits into the mandate of existing regulatory authorities. The PPP units will not have a direct involvement in the regulation of the PPP arrangements or in the contract management. It may have a role to play in relation to issues related to the defining of the general regulatory framework but not in relation to individual projects.

The interface between the proposed in-contract regulatory regime (including payment mechanism and risk sharing) and the existing sector regulation is

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23 In regard to the environmental projects (water supply/wastewater and municipal solid waste management) the situation is less clear. The project responsibility lies with the local authorities but the Ministry of Environmental and Spatial Planning and the Ministry of Internal Affairs and/or Ministry of Public Services may have interest in regard to the PPP arrangements in the sector.
complex and project specific and will have to be elaborated for each individual PPP project being structured.

**Principal role of a Central PPP unit**

The following will outline the key tasks are often allocated to a central PPP unit.

- Should PPP be promoted through a national programme/strategy or would the development rather be left to the sector ministries to find the appropriate role for PPP?

- Which role should the central PPP unit have in relation to project delivery, i.e. the split between a general policy role and more project delivery role?

**Overall strategy for application of PPP**

The question of how to promote PPP in the country will, to some extent, define whether the central PPP unit should be the key driver of a national PPP programme or whether the PPP unit should rather focus on establishing a conducive framework for PPP and then service the relevant public authorities that may wish such support.

UK and Ireland are examples of countries that had adopted policies of promoting PPP and then given clear mandate to central PPP units in promoting the implementation of PPP arrangements. Several other EU countries have adopted more reactive strategies in relation to the ministry of finance's role in relation to implementation of PPP arrangements.

It seems reasonable to assume that a fast take up of PPP would be better promoted through a national programme with the finance ministry as strong champion. However, it is not clear that whether a fast implementation of PPP is necessary the best approach or primary goal. A slower may also have benefits perhaps in the form of a strategy to focus on the implementation of a number of pilot projects and postpone discussions of major PPP programmes till more concrete experience on the scope and possible benefits of PPP has been gained.

**Role of Central PPP unit in relation to project delivery**

The involvement of the central PPP unit in project delivery is a difficult, as there are opposing arguments. On the one hand it will be important to maintain that it is the sector authorities that have full responsibility for the PPP arrangements. Too much reliance on a key expertise from central unit may undermine this accountability of the sector bodies. On the other hand there will be a lack of skilled staff in the individual ministries could argue in favour of an initial strong involvement of staff from the central PPP unit to secure that skills are developed and be deployed in PPP projects across sectors.

Another issue that bears consideration is how to calibrate the involvement of the central PPP unit in an individual project when the role of finance ministry in relation to approving projects is large. If the finance ministry is to approve certain type of projects, the central PPP unit may be asked to assess individual projects.
Key objectives
With the above in mind, the work of the PPP unit is in the initial phase proposed to focus on the following objectives:

- Take the leading role in ensuring the build up and institutionalising of skills on PPP delivery in the country.
- Enhancing understanding and awareness, among public and private stakeholders, of the options and requirements of PPP solutions in the country.
- Take the leading role in developing a policy on PPP, i.e. clarifying which role PPP should have in public procurement.
- Ensure that the right amount and right kind of advisory services is involved in the pilot projects.

With the further development and wider application of PPP, other issues may be of greater importance for the unit, including:

- development of a programme for PPP,
- standardisation of approaches, and
- securing value for money

Detailing tasks and responsibilities
In line with the above, the initial key tasks of the central PPP unit should focus on the following, which are further elaborated below:

- Formulation of PPP Policy
- Pilot project delivery
- Promoting awareness and understanding of the PPP with stakeholders
- Development of initial guidelines and best practise
- Monitor and review PPP implementation

Policy formulation
The policy role of the central PPP unit will mainly concern the development of national policies and strategies required for the development of the appropriate framework for successful application of PPP at the sectoral level. The PPP policy will evolve over time. The key issues to clarify in the initial phase will include:

- Should a national PPP programme be drawn up and if so which instruments should be in place to support the wider application of PPP.
- Clarify roles and responsibilities of various parties. From a central administration this in particular concern the definition of which part of a PPP arrangements would require approvals, which authority should give these and when.
Delivery of pilot projects
A key element in driving the PPP process in Kosovo will be the implementation of a number of pilot projects that may demonstrate the applicability of the concept, assist in building a broader resource base and assist in identifying barriers and issues that needs to be address to facilitate the wider application of PPP.

The central PPP unit should, in cooperation with the relevant sector authorities, decide on a set of pilot projects in relevant sectors - in first place in transport and environment. A number of projects have already enjoyed support; however, few of these have been implemented.

The central PPP unit should play a key role in the identification and structuring of a number of initial PPP project. However, the responsibility for the project delivery should remain with the responsible sector agencies/local authority.

An essential part of helping other public entities to start up a PPP project will be to supply the necessary competences that do not already exist in the agencies or local authorities. The goal of this task is to make the responsible agency or authority a "competent buyer" that can give the necessary guidance and opposition to the private tenderers.

As PPP develops in a country it may become relevant to organise local PPP units covering specific geographic or project areas. Whether this will be necessary and how it will be organised depends on the actual development of PPP.

Communication and PPP awareness building
An important role to be undertaken by the central PPP unit will be to promote that adequate structure are put in place to disseminate basic knowledge and understanding of the PPP concepts, which benefits PPP may bring and in particular which requirements there are for its successful application.

A part of the communication/awareness programme should be directed towards the establishment of training sessions.

Standards and best practise
The development of guidelines should be seen as an evolving project, where initial focus should be on getting the overall steps and structures in place and as experience is gained in regard to problems and relevant local solutions, more detailed guidelines may be developed.

More detailed sector specific guidelines should be produced by the sector PPP units.
Monitor PPP activities and evaluate results
A key source of learning will be to carefully evaluate the results from existing projects.

The tasks of the PPP unit would include the establishment and maintaining of a database providing an overview of the PPP activities that has been undertaken or are in progress in the country.

The unit should prepare an assessment report presenting the status for PPP in Kosovo as well as an identification of key barriers and problems related to the application of PPP. Which PPP models have worked, what are the key barriers, what does the project sponsors state as key problems in further application of PPP arrangements.
3) PPP options

Numerous forms of Public Private Partnerships have been experimented with unequal record of success. A usual way of presenting them in a simplified way shows the main categories on a horizontal axis, where the extent of participation of the private sector grows from left to right:

*Diagram A2-1: Extent of participation of the private sector*

**Maintenance and management contracts**

Many road agencies are becoming aware of the high cost and difficulty of managing their traditional force account arrangements for road maintenance and are turning to various forms of contract maintenance to improve efficiency in this sector. The main options are as follows:

*Quantity-based maintenance contracts* have been implemented in many countries with good records of success and are often seen as a first step towards PPP. Remuneration of the contractor is based on unit prices defined in the maintenance contract and quantities measured on site. Design works are previously defined by a consultant and a supervision consultant typically assists the Granting Agency in controlling the quality and quantity of work done. The current trend is to include a whole set of maintenance activities required by a road segment or portion of the network in the contract to facilitate administration and achieve economies of scale. These are often referred to as "integral" maintenance contracts as they cover a broad range of work and may include a variety of maintenance, operation and administration services.

*Performance-based maintenance contracts* are derived from the previous type of arrangement by shifting the focus from administration (maintenance activities and resources) to certain performance conditions valued by the users. They typically leave contractors with more autonomy in the design and organization of the works. Remuneration is based on a monthly fee determined up-front stated in the contract and linked to performance indicators.

*Management contracts:* A management contract is an arrangement by which a private company is entrusted with various types of tasks usually performed by the public authority, relating to the organization of road maintenance operations. Usually, the function of the private firm is to respond to day-to-day routine maintenance requirements by contracting private companies, on behalf of
the public entity, to perform the works. Management contracts can also (or only) focus on operation management. In this case, typical tasks entrusted to the private sector are: traffic counting, axle-load weighing and providing traffic information, traffic management including surveillance, stand-by services for accidents, traffic regulation, toll collection (usually not remunerated on the basis of the amounts collected but rather on a fixed rate basis).

Concessions
A road concession is an arrangement under which a public entity, owner of the road, delegates to a private entity (concessionaire) the responsibility for providing and maintaining a specified level of service to road users in exchange for the right to collect revenue from those users. Concessions may take various forms:

**Operation and maintenance concessions:** The host country's objectives may be for the private sector to operate and maintain an already existing road, and therefore the government may grant a concession to the private participants to charge user tolls to help finance the improved operation and maintenance of the road. Such a concession shifts the financial burden of operation and maintenance to the road user and at the same time should increase the efficiency of the road's operation and maintenance. Besides the issues inherent in a concession agreement, an operation and maintenance concession is similar in scope and approach to what is required and negotiated in a typical operation and maintenance agreement between private parties under a BOT-type arrangement (see below).

**BOT-type of concessions:** Under a BOT, the responsibility of the concessionaire is not limited to operation and maintenance of the infrastructure but also comprises an initial construction, upgrading or major road rehabilitation component. Massive investment and consequent mobilization of private funding sources is therefore required from this company and is to be repaid from the revenue collected from road users (usually tolls). BOT (Build Operate Transfer) stresses the responsibility of the private entity during construction and operation of the road and the handing over (transfer) of the assets to the public entity at the end of the operation period. The high initial investment required from the private sector and the consequent long concession period make the distribution of risk between the parties a key element of success in such schemes. Many variations on this type of contract have been implemented with a consequently growing number of acronyms used to label them (BOOT, BOO, BTO).

**Asset Transfer Model:** This methodology is essentially a variation to the DBOF approach. The difference is that select government assets (motorways) are transferred into the concession granted to the private sector. This essentially takes the form of a lease or licensed to utilise the assets for a period of time.
**Toll Road Corporations** are; public, private or semi-public organizations set up to develop and operate a regional or national network. Setting up a public toll road corporation is often chosen by Governments to maintain a strong influence over the operator. Such an entity is free to collect tolls for its own development and its ability to tap private finance is facilitated by strong government support or by demonstrated revenue and a track record proving financial viability. This is usually reflected in good credit ratings. Building the infrastructure facilities may not necessarily be part of the initial assignment. For example, a corporation could be set up to operate an existing road infrastructure facility and build new facilities as revenue is raised through tolls collected on the existing facilities, or through the securitization of future revenue made possible by the existence of a solid past revenue record. Toll Road Corporations have largely contributed to the development of the highway networks in Europe (France and Italy), Japan and the USA. In France and Italy, both public and private corporations co-exist.

**Elements of choice**
It may be expected that projects with higher level of private sector involvement deliver more efficiency gains. However, the level of complexity of the projects and the consequent risk of failure grows correspondingly. The first major difficulty for the decision makers consists therefore in identifying which option may be most suitable for their country and for the projects they want to implement. Main parameters leading this choice will be:

- The coherence of the project/option with the main objectives of the road sector policy:
  1. Construction, rehabilitation, maintenance or a combination of those
  2. Single road approach, network of a few roads, system wide approach
  3. Technical and functional characteristics of the infrastructures

- The capacity of the private sector (contractors, consultants, financiers) to undertake the foreseen activities.

- The adequacy of the country environment (political, legal and institutional framework) to the contractual and organizational arrangements required to rule the project.

Policy makers should perform a diagnosis of the sector and adjust the road policy before embarking in the design of PPP projects.

**Main Implementation Steps**
Many of the topics discussed above are important concepts for successfully developing and implementing PPPs to expedite needed Highway projects, and to distinguish between projects well suited to a PPP and those less suited to partnering arrangements. In addition, there is a need to increase the understanding and flexibility of transportation agencies in Kosovo towards the concepts and
advantages of PPPs as an important option for developing, funding, and delivering transportation projects. Guidance is also needed to help these agencies select candidate projects, define them to convey what the project will entail, and develop documents to ensure a transparent process and establish partner accountability.

Diagram A2-2 illustrates the extent to which central and local agencies could develop PPP program resources and regulations and apply various PPP options to expedite and cost-effectively implement important infrastructure projects.

Diagram A2-2: Implementation Steps
Strength and weaknesses of the different PPP model

As shown in the preceding sections, the PPPs are well known instrument (see diagram A2-3 below). They not only cover road infrastructure but as mentioned also provide for a wide range of public services.

Diagram A2-3: Contract structure of a typical PPP

As previously mentioned, there are a number of reasons for choosing the PPP procurement approach. PPP arrangements are made attractive by limitations in public funds and also by efforts to increase the quality and efficiency of public services. The EC has identified four principal advantages for the private sector in PPP schemes:

- to provide additional capital;
- to provide alternative management and implementation skills;
- to provide value added to the consumer and the public at large;
- to provide better identification of needs and optimal use of resources.\(^{24}\)

\(^{24}\) DG Regional Policy has undertaken a wide consultation process within the Commission, involving the EIB, EBRD, PPP units and task forces of the Member States and Candidate
Other identified reasons for choosing a PPP approach include:

- **Better value for money (in terms of cost and quality of service)**
  - whole life costing
  - design innovation
  - incentives to improve efficiency
  - better risk allocation
  - competition among tenderers

- **Faster project delivery**
  - clear incentive to deliver projects within the shortest timeframe
  - but longer time for the preparatory design of the project
  - issue of limited experience with PPP schemes
  - issue of combination of PPP with EU grants

- **Accelerated project implementation**
  - but funding still has to come from the users, the budget or donors

Table A2-1 below provides a non-exhaustive list of broad categories of PPP structures each with increasing degrees of private sector involvement. These PPP models are characterised by:

- Involvement of the private sector in traditionally procured projects:
  - Service contracts
  - Operating and management contracts
  - Leasing

- PPP with increased risk transfer to the private sector:
  - Design, Build and Operate contracts (BOT type contacts)
  - Design, Build, Operate and Finance contracts incl. Asset Transfer Model
  - Concession contracts

- Private provision:
  - Privatisation/divestiture of public assets

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Countries. The result can be found in "Guidelines for Successful Public - Private Partnerships" (http://europa.eu.int/comm/regiona_policy/themes/infotech_en.htm) published in March 2003, which were designed as a practical tool for PPP practitioners in the public sector faced with the opportunity of structuring a PPP scheme and of integrating grant financing.
Table A2-1  
Alternative PPP Structures (Options for Private Sector Participation)

<table>
<thead>
<tr>
<th>PPP model</th>
<th>Operational efficiencies</th>
<th>Full life costing of Investments</th>
<th>Optimal use of capital Resources</th>
<th>Raising financial Resources</th>
<th>Implementation Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>X</td>
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<td></td>
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<td>Contract</td>
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<td></td>
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<tr>
<td>Lease</td>
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<td>Arrangement</td>
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<tr>
<td>DBO (BOT)*</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>medium</td>
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<tr>
<td>DFBO (BOOT)*</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>medium</td>
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<tr>
<td>Asset Transfer</td>
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<td>medium</td>
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<tr>
<td>Concession</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>high</td>
</tr>
</tbody>
</table>

Involving private participation in transport infrastructure projects entails:

- General project appraisal
- PPP specific appraisal
- Assessing private sector interest
- Assessing Value for Money

As part of a **general project appraisal** the following issues need to be taken into account:

- **Technical feasibility:**
  - Is the technology proven and commercially available
  - Are there significant environmental impacts that have not been mitigated
  - Are there significant social impacts that have not been mitigated

- **Economic and financial feasibility:**25
  - Is the cost-benefit of the proposed solution acceptable compared to available alternatives disregarding possible grants

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25 While the World Bank Toolkit for PPP in Highways can provide a useful assessment of the "financial" viability of a concession, the economic viability of a project is an essential criteria to determine whether it is beneficial for the country to proceed with a particular initiative. Three main questions require answering; firstly, the project has to be beneficial to the country in economic terms; secondly, the project has to be commercially viable; and thirdly, if a public contribution is necessary, the provision of this contribution needs to be economically viable for the country.

Is it clear where the money that will ultimately pay for the project will come from

- Organisational and legal feasibility:
  - Is the project ownership well defined
  - Is the project sponsor committed to the project
  - Is the project sponsor capable of implementing the project
  - Are the project boundaries well defined and tasks for various components distributed between project partners
  - Are links to other projects clear
  - Are there any legal limitations on the proposed project scope.

Successful PPPs require an effective legislative and control framework which ensures that each partner recognizes the objectives and needs of the others. Such an accepted methodology is necessary to ensure efficient application and to benefit from the recognized advantages for the public and private sector.

PPPs can achieve additional value compared with other approaches, if there is an effective implementation structure and if the objectives of all parties can be met within the partnership. It must be remembered however, that such financial packages are complex to design, implement and manage. They are by no means the only or preferred option: indeed in some cases it has been reported that they lead to an increase in the costs of services to citizens.

Therefore PPPs should be carefully assessed in the context of the project, the public benefit and the relative gains to be achieved under various approaches. Not least the national characteristics, individual macro-economic situations and the local policy framework must also allow and facilitate PPPs.

Hence, a PPP specific appraisal should seek answers to the following questions:

- What are the key drivers for proposing this project as a PPP?
  - PPP should be a conscious, professional and competitive process

- Is it likely that Value for Money can be obtained through a PPP solution?
  - Are there financial arguments for using PPP
  - Are there possibilities for risk transfer to the private sector
  - Is it possible to specify output based objectives
  - Will it be possible for the private sector operator to introduce innovative solutions that optimize project life cycle costs

- Is the public sector project sponsor ready to accept a different role compared to a traditional procurement?
  - Is the project sponsor ready to transfer key design decisions to the private sector
Is the project sponsor ready to transfer management autonomy to the private sector in the O&M phase

Appraisal of PPP projects also involves an assessment of private sector interest. In this respect, the following issues should be born in mind:

- Competition during the tendering of a PPP is a key prerequisite for obtaining Value for Money for the public sector
- Competition requires that the tender is sufficiently attractive to attract several experienced private sector operators
- To facilitate this, a mini market sounding of selected local and regional private sector operators may be performed to:
  - assess whether there is real interest among some Kosovo semi-state agencies, pension funds and similar entities and selected international private sector operators to participate in a given Highway PPP project in Kosovo
  - get feedback on the technical aspects of the project such as types of services that the private sector operators would be interested in and capable of providing
  - get feedback on the necessary framework conditions (legal, contractual, institutional and commercial) for attracting private sector participation in the specific sector or project in Kosovo.

Governments’ capacity to ensure good PPP contract design and contract execution is a main issue. Key aspects such as ensuring government skills to develop PPP contract standards and appropriate risk sharing solutions can be improved when a dedicated PPP unit is available. Important issues to consider are the following:

- The payment mechanism
- Service standards
- Risk transfer
- Other commercial parameters
- New challenges for the public contracting authority
- New challenges for the Kosovo private sector participants
- The need for a monitoring and regulatory function
- The role of a monitoring and regulatory function

Thus, PPP contracts involve features more advanced than traditional contracts. Depending on the goods and service that a PPP involves, several features have to be handled, for example: who will carry different types of risks (both current and potential), how to define and measure output and quality, and in the case of long contracts, how to renegotiate contracts. Setting up contracts that take these aspects into account is difficult, especially since the private sector partner might have an information advantage in some stages of the process.

Government skills, as for any other agent, increase with experience in the area and good practice. As PPPs can be complicated, they require that the government has solid skills not only in tendering procedures, with legal and manage-
ment aspects, but also with the actual functioning of assets, maintenance and service delivery. Knowledge and skills by government units involved in PPPs are essential to formulate adequate contractual frameworks that allow for the public sector to reap benefits of using PPPs compared to traditional in-house production. Whether this technical and legal knowledge is owned by one special unit in the government or several units within line ministries or agencies depends on country specific institutional set up and the scale of the use of PPPs.

PPP projects in highways have suffered from optimism bias, including in the two neighbouring countries Hungary and Serbia. Overall these highway projects have been characterised by:

- Forecasting errors from inability to obtain good data or incorrect assumptions in models
  - price elasticity of traffic to tolls
  - substitute services/intensified competition
  - benefits counted twice in different parts of appraisal
  - appraisal overlooks consequences for network as whole.

- Political commitment at too early a stage
  - before appraisal at sufficient depth to allow graceful exit
  - project timelines inconsistent with sound tendering practices

- Downplaying vulnerability of PPP projects to changing political, financial, economic context.

**Shadow Toll Agreements**

A Shadow Toll System consists of a concession awarded to a private contractor who has then the responsibility to Design, Build, Finance and Operate (DBFO) a road section for an agreed period of time. One of its special characteristics is that the Administration will pay the contractor on an annual basis depending upon the volume of traffic using the road. The term "shadow tolling" is used as there are no visible tollbooths and the users do not actually pay charges to the operators.

Shadow tolling is a tolling approach initially adopted in the United Kingdom (UK) where governments pay tolls rather than motorists. Unlike traditional tolls paid by motorists for the use of a specific transportation facility, a government makes shadow toll payments to a private concessionaire for a highway facility's construction, operation, or both. The payments are based on traffic volumes and service levels. Motorists see no visible evidence of government payments to the facility's contractor or operator.

The advantages of the shadow toll system are that it:

- minimizes traffic risks, making it easier for private investment partners to find more advantageous financing;
- accelerates construction and implementation of capital projects;
- captures the profit-seeking motives of the private sector, often resulting in capital construction costs savings;
• capitalizes on cost efficiencies of life-cycle costing;
• if structured properly, can dampen down the effect of lower than expected traffic volumes;
• transfers operating and maintenance risk to the concessionaire;
• caps the public sector's exposure, thereby eliminating the risk of super-profitability by the concessionaire;
• reduces public equity requirements; and
• avoids the need for toll plazas.

Most, but not all, shadow toll projects involved upgrades of existing roads. This has important attractions for private investors: historic traffic data reduce traffic risk and the need to depend on forecasts for revenue projections. In certain cases, it can also provide opportunities for generating cash flows during construction. As with conventional tolling, shadow tolls can amortize capital costs over the useful life of the investment and can create early completion and other incentives by sharing traffic forecasting and other risks with the private partners. An important advantage of a shadow toll structure is its creation of incentives for the contractor to construct a road quickly and with high quality. Because payments to the contractor are based on traffic volume, the contractor benefits by completing the project early, avoiding construction delays and ensuring a well maintained and long-lived road.

Shadow Toll Agreement Structure
A typical shadow toll agreement is made between a government and a private contractor/operator for the construction or reconstruction of a specific project. Under a DBFO arrangement, the contractor/operator might agree to provide some or all of the financing for the project by raising independent capital. The private partner has a set period, possibly 30 years, to recover costs and earn a reasonable return on investment from shadow tolls. At the end of that term, the road would revert to public ownership, and the shadow toll payments would cease. During the concession period, the host agency pays the concessionaire based on the number of vehicles traveling on the road. It does so using banding structure based on roadway usage. Tenderers for shadow toll projects must define their own banding structure, where they receive pre-specified compensation levels from the government for different traffic increments. Precedents in the UK for financing road projects in this way suggest that tenderers use each band to cover different elements of the project's cost profile. Band 1 has typically been used to cover fixed operating and maintenance costs and senior debt service. Band 2 covers variable operating and maintenance costs and subordinated debt service. Band 3 tends to be used to pay dividends and for quasi-equity debt service. Any traffic above an agreed level (Band 4) receives no toll, thereby capping toll payments and the concessionaire's potential returns.
Appendix 3 Strategic planning of a target motorway corridor

This appendix provides an outline of a strategic development planning of target motorway corridors as agreed with the SC. The plan focus on dividing the corridors into logical segments based on physical and financial constraints, examining issues of cost versus timing of development of the various segments, and then upon looking at optimum division of segments between public and private sector financing.

The Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo already provide a good preliminary assessment of the basic economic viability of various segments of the M2 and M25 corridors. However, the results of that study also indicate low traffic and low revenue generation potential at certain segments and in particular in the medium term.

Attracting substantive private finance (and also donor finance) will be facilitated to the extent that both public and private sector investments are concentrated within a single corridor in a manner that will attract long distance traffic to that corridor.

Strategic plan for corridor development
The Consultant recommends that the main corridors M25 be designated as the highest priority for development.

Based on the draft Kosovo Development Strategic Plan (KDSP), the government has designated the Route 7 as one of the priority road segments for motorway development M25.

Within the M25 corridor, preliminary indications are that the sections designated in the Two Axes Study as 7-3, 7-4 and 7-5 may be the appropriate general location to focus the initial phase of investments as also corresponding to the KDSP.

Strategy issues to be considered by the GoK are:

- Once the first priority corridor is chosen, focus at a strategic level on development of the entire corridor, from border to border.
- Establish a policy that this corridor will be tolled, and that the toll revenue from this corridor will be utilised for the development of this corridor.
- Establish the importance of developing this corridor to the overall economy, and give projects within the priority corridor (particularly the early projects) a reasonable priority of access to the governmental capital budget.
- Lobby neighbouring governments to invest in suitable improvements along the TEN route that links with Kosovo’s chosen priority corridor. Focus on
improving long term trade, and on encouraging long distance transport along the corresponding TEN route.

- Develop a phased upgrade plan for the strategic corridor. The upgrade plan should focus on prioritising improvements in such a manner that long distance traffic is attracted to the corridor as soon as possible.

- Avoid investing in the upgrade of competing parallel routes (to the priority corridor), except in the specific instance where such improvements have the potential to improve the long distance travel times and safety in areas where the final motorway solution will be very expensive (for example in mountain areas).

The phased upgrade strategy needs be accompanied by a strategic finance plan (see below), which addresses the major expenditures and the timing of the expenditure. The expenditures planned to be from the government budget need eventually be agreed with the MFE and entered into the MTEF. Expenditures planned to be financed from donor or multilateral sources need be eventually agreed with corresponding donor/lender. Private funded projects will need eventually be tendered and negotiated.

Periodically in the future, based upon actual budget possibilities and actual performance of the motorway “financial engine” (see below), the government may adjust certain projects within the plan and (re)allocate certain projects between public and private finance options.

**Strategies for attracting private finance**

**Asset transfer – rough analysis of potential**

The Consultant found substantive indications that it would be difficult in the medium term to obtain sufficient funding commitments from the central governmental budget to facilitate any type of stable governmental financial support for a sizable private investment in road infrastructure. This lack of stable governmental funding combined with low traffic and low ability to pay tolls will limit the range of PPP options available.

However, based on the Two Axes Study findings that there are segments of the M25 corridor that are on the verge of being financially self sufficient, the Consultant made some rough calculations of the potential viability of “asset transfer” based strategies for development of PPP projects – see below for more detailed explanation of asset transfer techniques. These preliminary calculations appear to show that an asset transfer scheme based on 1 part private to 3 or 4 parts public/donor financing may be feasible.
Asset transfer strategies avoid the need for periodic governmental support on low traffic motorway investments by using existing government assets (in this case motorways) to generate revenue to be used to support private finance repayments. In the case of Kosovo, which doesn’t have suitable assets to transfer, these assets will need to be funded from a combination of government/donor/multi-lateral sources, which will present substantive difficulties. However, once an asset transfer scheme is up and running it can continue to run essentially without governmental support. As economic and traffic conditions improve, it can grow – and if properly structured it becomes in essence a “financial engine” for developing more motorways.

Conceptual example:

1) Commence with a public sector financed project developed on “Road A”.
   • Finance of Road A is some combination of grants, soft loans, or potentially even sovereign debt forgiveness that is structured to allow the upfront costs and debt service of non-donor support to be financed from the governmental capital budget in the medium/long term.

2) Private funded project developed on a strategic “Road B” adjacent to the public financed Road A.
   • Purchase of land and securing of environmental/planning permits are responsibility of the government, and financed from short/medium term governmental budget.

3) The rights to utilise the publicly financed asset (Road A) to collect revenues is transferred into private sector DBOF contract upon completion of Road B.
   • The private developer establishes tolling system and operates and maintains both Road A and B (the core of the motorway “financial engine”).
• Projected base case revenues from the tolling of Road A and B sufficient to service the debt of Road B, pay the projected operations and maintenance costs of Road A and B, and provide a reasonable commercial return to the private operator.

4) Once the motorway “financial engine” begins to function, the private operator will eventually (dependent upon macroeconomics, development of other roads and countries along the corridor) become able to finance the development of additional Road segments.

• The contractual mechanism should give the private operator the incentive to develop new road segments, without giving a guaranteed right for the private operator to undertake additional development.

• The government would retain the option as to whether to allow the private operator to develop additional segments or whether to finance additional road segments from other sources.

• Additional road segments developed would ideally be operated and tolled by the private operator, subject to reasonable governmental control and buy-out provisions in the case that the private operator is not sufficiently engaged in building out the corridor. All “excess toll revenue” over an agreed cap on the private operator's profitability would flow back to the government, and reinvested into the corridor by the government.

**Location for private investments within the target motorway corridor**

The optimum location for private investments within the target motorway corridor includes the potential in combining public and private investments in creative ways to facilitate development of long term revenue sources.

The location and timing of proposed motorway investment projects are illustrated in the following three figures showing the situation of the M25 motorway options along Route 7 in respectively year 2013, 2017 and 2022 & 2027. The years are marked to indicate the implementation of road segments at various stages; upgrade of existing, 1/2 motorway and full motorway according to the recommended timing based on economic viability indicators and justification from traffic development. Due to public difficulties in Kosovo in financing transport infrastructure, project finance options, which is discussed further below, is a combination of public and private finance. An indication of the proposed public and private finance is shown by the figures. Furthermore, it is assumed, in order for the private sector to find their involvement attractive, that the public shall be responsible for all costs associated to land expropriation, environmental issues and other permits that will be required for the implementation of the motorway corridor.

Figure A3-2 show the proposed situation of the M25 motorway along Route 7 by year 2013.
As indicated above the first stage of the motorway development requires a considerable amount of public financial commitment to allow for a small part of private sources to finance motorways.

It is assumed that segments 7-3a+b, 7-4, 7-5b and the link between Route 7 and Route 6 are constructed as a new 4-lane motorway and financed by the public coming from a combination of budget sources, donor finance as either soft loans or grants. Segment 7-5a is expected to be financed by private finance and this segment consists of 5.9 km motorway compared to the full length of 7-3 to 7-5 including the link R7/R6.

The length of the private financed segment 7-5a correspond to 16% of the full length being also the financial part of the whole first stage motorway project. Implementation period is assumed to start in 2010 and last for 3 years. As further indicated on the figure, the public is proposed to finance and be responsible for upgrading of segment 7-1 and 7-6 before their eventual plans for being developed into motorways.
Below figure A3-3 show the proposed situation of the M25 motorway along Route 7 by year 2017. At this stage it is assumed that a concession agreement has been made on segment 7-3 to 7-5 between the Kosovan government and the private operator that initially financed segment 7-5a. The private operator is responsible for the operation of all segments as well as for maintenance based on revenues from collecting toll.

By year 2017 it is expected that the public shall finance two 1/2 motorway projects on respectively segment 7-1 and 7-2b.

In parallel to this, the private operator is expected to finance 1/2 motorway projects on 7-2a, 7-7 and 7-8.

Below figure A3-4 show the proposed situation of the M25 motorway along Route 7 by year 2022 and 2027.
At the end of year 2022, the motorway corridor is almost fully developed and it is assumed that private finance will be used to construct and convert segments 7-1, 7-2a+b, 7-7 and 7-8 into 4-lane motorways. Segment 7-6, at which almost half the total costs are for tunnel works in mountainous landscape, is assumed to be financed as a combination of public (majority) and private finance before it will become a 4-lane motorway.

**Figure A3-4  Route 7 - Situation for M25 motorway options by 2022 and 2027**

**Conceptual finance plan of the target motorway corridor**

The conceptual finance plan is outlined for different phase of the target motorway corridor with public and private involvement - 2013, 2017, 2022 and 2027. Focus on estimating the rough size and timing of financing needed from the governmental budget, donors and/or multilateral lenders, private sources. The main idea of the conceptual finance plan is to facilitate future plans between MTC and various entities and from which a realistic and committed strategic finance plan can eventually be developed.

Below figure provide a summary of the road intervention and implementation years for M25 / Route 7 with indication of the involvement of public and private finance.
**Figure A3-5** Summary of road interventions and years of implementation on M25 /Route 7

<table>
<thead>
<tr>
<th>Development Description</th>
<th>Start Year</th>
<th>Open Year</th>
<th>7-1</th>
<th>7-2a</th>
<th>7-2b</th>
<th>7-3a</th>
<th>7-3b</th>
<th>7-4</th>
<th>Link *</th>
<th>7-5a</th>
<th>7-5b</th>
<th>7-6</th>
<th>7-7</th>
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<tr>
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<td>2011</td>
<td>2013</td>
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<tr>
<td>Public - widen existing</td>
<td>2011</td>
<td>2013</td>
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<td>2017</td>
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</table>

Note: R7/R6 Link to be “½ motorway”

A summary is provided in below table of the expenditure figures for the proposed highway investments for the various road segments on M25/Route 7 by respectively public and private finance divided into design, works, land and maintenance.
### Table A3-1 Expenditures for M25/Route 7

<table>
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<tr>
<th>Segment</th>
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<th>O &amp; M</th>
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<td></td>
<td>2010</td>
<td>0.313</td>
<td>0.115</td>
<td>0.115</td>
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<tr>
<td></td>
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<tr>
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<td>2012</td>
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<tr>
<td></td>
<td>2013</td>
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<td>2016</td>
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<td></td>
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</tr>
<tr>
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<tr>
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<td>2021</td>
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</tr>
<tr>
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<td>2022</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>2023</td>
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</tr>
<tr>
<td></td>
<td>2024</td>
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<tr>
<td></td>
<td>2025</td>
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<td>0.300</td>
<td>0.300</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>2026</td>
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<td>0.300</td>
<td>0.300</td>
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<td></td>
<td>2027</td>
<td>0.300</td>
<td>0.300</td>
<td>0.300</td>
<td>0.300</td>
<td></td>
</tr>
</tbody>
</table>

#### Notes
1) Costs in €m (economic costs at 2006 prices, i.e. excluding VAT)
2) Generally assumes site investigation and design takes place in year -2
3) Generally assumes land acquisition takes place in year -1
4) The "0.5m/way" option assumes that all land will be purchased for the full motorway.
5) The split between public and private costs is only notional at this point in the planning process.
First stage indicative financial viability of private involvement

The financial viability of private sector financial assistance in the development of the motorway corridor M25/Route 7 has been made to indicate the possible private sector attractiveness. As already indicated, the segments 7-3 to 7-5 and the link between Route 7 and 6 correspond to the first stage of the proposed motorway development representing a total length of 37.7 km 4-lane motorway. The length of the proposed private financed segment 7-5a is 5.9 km and correspond to 16 % which is also the financial part of the whole first stage motorway project.

Below table outline the assumptions used for the financial analysis which is assessing the financial viability of the private investment in a 4-lane motorway of 5.9 km along segment 7-5a. Collection of toll revenue by the private operator will be made on the entire segments 7-3 to 7-5.

Table A3-2 Assumptions for financial analysis of Public Private Partnership on Segment 7-3 to 7-5 on M25 / Route 7

<table>
<thead>
<tr>
<th>Element</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lifetime of the investment is assumed to be 30 years and a scrap value for the road equal to the full investment is included in 2031.</td>
<td></td>
</tr>
<tr>
<td>Discount rate (real)</td>
<td>6%</td>
</tr>
<tr>
<td>Year of result (NPV-values)</td>
<td>2007</td>
</tr>
<tr>
<td>Price level</td>
<td>Fixed 2006-level</td>
</tr>
<tr>
<td>Time values</td>
<td>Based on other studies - estimated value of travel time in 2006; EUR 1.15 per hour for business travel and 0.37 for others (Two Axes Study)</td>
</tr>
<tr>
<td>Maintenance costs</td>
<td>Modelled in HDM-IV (Two Axes Study)</td>
</tr>
<tr>
<td>Cost of toll operation</td>
<td>Based on experience from other countries in the region and include cost of physical toll facilities, maintenance, labour and management. The private operator will as part of the concession agreement is allowed to collects toll revenues from the entire segments 7-3 to 7-5.</td>
</tr>
<tr>
<td>Investment costs for 4-lane motorway</td>
<td>Based on engineering analyses (Two Axes Study) and includes 15% VAT. Public will be responsible for the land acquisition and environmental and other permits required. Public finance of Segment 7-3a, 7-3b, 7-4, 7-5b and link R6/R7 corresponding to EUR 175 million. Private finance of Segment 7-5a corresponding to EUR 30 million excluding land.</td>
</tr>
<tr>
<td>Construction period</td>
<td>2010 - 2012. First year of operation 2013</td>
</tr>
<tr>
<td>Private loan finance</td>
<td>90 % loan finance by private operator, 5.5 % interest, 20 years repayment</td>
</tr>
<tr>
<td>Real growth of GDP</td>
<td>2006: 3%, 2007: -1.6%, 2008: 2.5%, 2009-2020: 3.0%, 2021-2031: 4%.</td>
</tr>
<tr>
<td>Real growth in time values</td>
<td>Expected growth in GDP applied with an elasticity of 1 (hence time values grow at the same pace as GDP).</td>
</tr>
<tr>
<td>Toll level</td>
<td>Toll rate EUR 0.025 from year 2012 based on corresponding level from neighboring countries e.g. Serbia and FYRO Macedonia</td>
</tr>
<tr>
<td>Traffic assumptions</td>
<td>Traffic model estimate (based on moderate willingness to pay) that 50 % of the traffic will used the toll roads in the first 4-5 years - gradual increase to 75-80% at the end of the period of analysis</td>
</tr>
</tbody>
</table>

Source: Two Axes Study and Consultant’s estimate
The return on private investment shall be regarded as indicative results as several of the assumptions taken may be subject to changes. Therefore further surveys should support the calculations e.g. the affordability and willingness to pay in Kosovo and its impacts on the traffic development on the toll roads compared to the existing road network.

Below table provide the indicative return on private investment in the motorway project after debt service.

**Table A3-3 Indicative return on private investment**

| Return on Investment after debt service (interest and repayment) | 8.5 % |

*Source: Consultant estimate*

The indicative financial viability is regarded slightly lower that would normally be accepted by private investors considering various risk factors in this region.

The conceptual example considered the situation at which public budget funds and donor funding are restricted in relation to development of transport infrastructure therefore requiring private finance.

The impact on the traffic diversion when imposing toll (EUR 0.02) are illustrated below for the three scenarios. The estimates are made by the traffic model (EMME/2) which was also applied on the Two Axes Study. The scenarios are showing in percentage how much traffic will stay on the motorways when imposing toll depending on willingness to pay.

**Figure A3-7 Traffic diversion from toll (low, average and high willingness to pay)**

*Source: EMME/2 traffic model*
The figure below shows the projected annual revenue cash-flow from toll charges assuming that the whole of M25/Route 7 has been developed into a toll road with a length of km 118. The revenue projections are based on three different scenarios for willingness to pay when using the tolled road segments - respectively low, average and high willingness.

Figure A3-8  Projected revenues from toll charges on M25 / Route 7

Source: Consultants estimates
Appendix 4  Conceptual Expenditures for Motorway Development

A4.1  Introduction
Investment costs are based on those worked up for the earlier feasibility study\textsuperscript{26} and set out in Chapter 8 (Design and Cost Estimation) of its Final Report. This appendix is an edited summary of that chapter in as far as it is relevant to the present study and tabulates the costs for the various options for full motorway development.

For the earlier feasibility study, the Consultant elaborated alternatives in the form of alignment centre line location and standard cross sections. For this purpose, design standards were reviewed, the conditions of the relevant existing roads and bridges were studied, appropriate cross sections for new works were identified, centre-line locations for new alignments were researched and prepared, and investment and maintenance costs were estimated.

A4.2  Design Standards and Cross-Sections

A4.2.1  Roads
The Consultant reviewed the design standards for roadworks as given in the set of the draft (Kosovo) Highway Standards for Road & Bridge Works\textsuperscript{27} and, for motorways, compared them with those used in the Route 7/M25 Vërmicë - Prishtinë - Merdare motorway design study\textsuperscript{28} (hereafter the "Route 7/M25 Motorway Design Study").

Although there were situations where challenging topography dictated the need to deviate from the design standards, the Consultant recommended that, in general, the following design parameters, as shown in Table A4.1 overleaf and typical cross sections shown in Figures A4-1, A4-2 and A4-3 be adopted for proposed new works alignments which are the subject of the feasibility study.

For motorways on a new alignment (Typical Cross Section Type 1) full grade-separated intersections are proposed. They are similarly proposed for the intermediate stage (Typical Cross Section Type 2) where a 2-lane road is to be provided on a new alignment and capable of being upgraded to a full motorway. Other 2-lane roads on new alignments (Typical Cross Section Type 3), where no increase in capacity is anticipated by the design year, assume at-grade "T" junctions (staggered in the case of crossings with existing roads) or roundabout junctions.

\textsuperscript{26} Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo, (COWI A/S for MTC/UNMIK), December 2006
\textsuperscript{27} Highway Standards for Road & Bridge Works (iC consulenten/DDC for UNMIK), July 2004
\textsuperscript{28} Motorway Vërmiçë - Prizren - Prishtinë - Merdare, Final Road Design Report (BPI-Consult GmbH for MTC), August 2005
### Table A4-6-1: Design parameters for new road alignments

<table>
<thead>
<tr>
<th></th>
<th>Motorway</th>
<th>% Motorway*</th>
<th>2-lane road</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Speed (kph)</strong></td>
<td>120</td>
<td>100</td>
<td>120 100</td>
</tr>
<tr>
<td>DIMENSIONS (m)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane width</td>
<td>3.75</td>
<td>3.75</td>
<td>3.75 3.75</td>
</tr>
<tr>
<td>Marginal strips</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50 0.50</td>
</tr>
<tr>
<td>Hard shoulder/emergency lane</td>
<td>2.50</td>
<td>2.50</td>
<td>2.50 2.50</td>
</tr>
<tr>
<td>Shoulder/verge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central reservation</td>
<td>4.00</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td><strong>GRADIENTS (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable max.</td>
<td>3.0</td>
<td>4.0</td>
<td>3.0 4.0</td>
</tr>
<tr>
<td>Absolute max.</td>
<td>4.5</td>
<td>5.0</td>
<td>4.5 5.0</td>
</tr>
<tr>
<td>Desirable min.</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5 0.5</td>
</tr>
<tr>
<td><strong>STOPPING SIGHT DISTANCE (m)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable min.</td>
<td>295</td>
<td>215</td>
<td>295 215</td>
</tr>
<tr>
<td>Absolute min.</td>
<td>215</td>
<td>160</td>
<td>215 160</td>
</tr>
<tr>
<td><strong>HORIZONTAL CURVATURE (m)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. radius (normal camber of 2.5 %)</td>
<td>2,040</td>
<td>1,440</td>
<td>2,040 1,440</td>
</tr>
<tr>
<td>Min. radius (normal camber of 3.5 %)</td>
<td>1,440</td>
<td>1,020</td>
<td>1,440 1,020</td>
</tr>
<tr>
<td>Desirable min. radius (superelevated at 5 %)</td>
<td>1,020</td>
<td>720</td>
<td>1,020 720</td>
</tr>
<tr>
<td>Absolute min. radius (superelevated at 7 %)</td>
<td>510</td>
<td>360</td>
<td>510 360</td>
</tr>
<tr>
<td><strong>VERTICAL CURVATURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable min. crest K value</td>
<td>182</td>
<td>100</td>
<td>182 100</td>
</tr>
<tr>
<td>Absolute min. sag K value</td>
<td>37</td>
<td>25</td>
<td>37 25</td>
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<tr>
<td><strong>OVERTAKING SIGHT DISTANCES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Overtaking Sight Distance (m)</td>
<td>580</td>
<td>580</td>
<td>580 490</td>
</tr>
<tr>
<td><strong>CLIMBING LANES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. gradient (%) if traffic-justified</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0 3.0</td>
</tr>
<tr>
<td>Min. length (m)</td>
<td>1,000</td>
<td>1,000</td>
<td>500 500</td>
</tr>
</tbody>
</table>

Note: "% motorway* = 2-lane road capable of being upgraded to a full 2 x 2 motorway; actual permitted speeds on such a 2-lane road will be lower than design speeds.
Figure A4-1  Typical Cross Section Type 1

Figure A4-2  Typical Cross Section Type 2
A4.2.2 Structures

Cross sections on new bridges would be complementary to the appropriate road cross-section and generally follow those set out in the draft (Kosovo) Design Standards for Bridges\(^{29}\) (Figures 6-10 to 6-15). The Consultant assumed that new bridges will be designed and constructed, and existing bridges repaired and rehabilitated, in accordance with the draft standards, subject to the following comments:

1 Structural bridge elements:

The above standards are based on the Eurocode system. However, the standard does not include National Application Documents (NADs). For instance the standards do not include values for live loads to be used as representative of the traffic load in Kosovo. Since the motorways and main roads in the study will connect with main roads in Serbia, Montenegro, Albania and Macedonia it is clear that all bridges must meet appropriate technical requirements related to international heavy traffic. The feasibility study assumed that commonly used design loadings will be adopted as set out in Eurocode EN 1991-3 Part 3, (Traffic Loads on Bridges). Similarly it is assumed that Eurocodes for structural design, primarily concrete, steel and composite structures, will be adopted with only minor deviations from national specifications.

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\(^{29}\) Highway Standards for Road & Bridge Works, Volume 1 Part 2: Design Standards for Bridges, Series 000: General Requirements (iC consulenten/DDC for UNMIK), July 2004
2 Service life:

In general the service life of new bridges shall be 100 years. Rehabilitated bridges shall be designed for a service life of 50 years.

3 Tunnels:

Although not located on the Trans European Transport Network (TEN/T), the Consultant recommended that any tunnels are constructed to comply with the EC directive on minimum safety requirements for tunnels which applies to all tunnels longer than 500 metres on the TEN/T road network.

A4.3 Comment on the M25 Motorway Design Study

In the earlier feasibility study the Consultant reviewed the Preliminary Design Report for the Route 7/M25 Vërmicë - Prizren - Prishtinë - Merdar motorway design study and those parts of the Final Road Design Report made available to them.

The study is reasonably detailed in terms of the background to the designs but is less detailed on the designs themselves and on cost estimation. The authors of that study considered many issues in some depth, including environmental mitigation, geotechnical, seismic loadings, the occurrence of unexploded ordnance etc. The design includes some challenging bridge construction (some over 1 km long) and a number of bored tunnels (with a total length of about 5 km). The Consultant is aware that the alignment, particularly in the vicinity of Prishtinë, was changed in that study's Final Road Design Report.

In the preliminary design for the proposed motorway, grade-separated intersections are located on the outskirts of the major towns with intermediate local communities only served via the existing road network. Some of these intersections are considerable distances apart. For the purpose of its cost estimation for the earlier feasibility and current studies the Consultant assumed that some additional intersections will be provided.

No mention appears to be made in the Route 7/M25 Motorway Design Study of climbing lanes (the draft Kosovo design standard gives guidance as to where climbing lanes should be provided). The Consultant also noted that no provision is made for emergency "arrester beds" (located towards the end of long downhill gradients on new construction to contain and stop runaway vehicles) and recommends that these be provided where gradients are steeper than 4% over lengths exceeding 2 km. Costs of such features have been included in the estimates for the current study.


It is not known whether the cost estimates presented in the Route 7/M25 Motorway Design Study include for contingencies or for design, supervision and management costs (which should be included in any investment cost) and therefore a direct comparison of the costs is not possible. However of interest is the low level of the land acquisition cost estimate in the Motorway Design Study (1.2% of construction cost) compared to the level estimated for full motorway alignments for the earlier feasibility and current studies (7.0% of construction cost).

A4.4 Road designs for new alignments
The alignment of the Route 7/M25 Motorway Design Study was reviewed during the earlier feasibility study for the purpose of costing any new motorway-standard alternative. In the absence of details of the alignment (considered confidential by the MTC and not made available to the Consultant) presented in the authors' Final Report, the Consultant reviewed the alignment presented in their Preliminary Design Report.

Alternatives involving a 2-lane road with provision for upgrading to full motorway were based on the same alignment as the motorway study.

For other alternatives involving upgrading of the existing Route 7/M25 road, possible centre-line alignments for new 2-lane by-passes were identified at Prizren, Suharekë, and Shtime, following discussions with the relevant municipal authorities.

For other new alignments (on Route 6/M2, except segment 6-7, and links between Route 7 and Route 6), centre-line designs were carried out by the Consultant, generally in accordance with the parameters set out in Table A4.1, with the aid of topographical maps (from the ex-Yugoslavia period) at a scale of 1:25,000, supplemented by orthophotos provided by the Kosovo Cadastral Agency and site inspections.

The proposed new Route 6/M2 alignment is intended to complement the existing M2 from QMI junction to Doganaj junction and includes a new by-pass of Ferizaj.

A4.5 Cost estimation

A4.5.1 General
Cost estimates were worked up from unit rates as used in the earlier feasibility study and accepted by MTC. The unit rates are based on the recent experience of the Consultant in the region and from prices quoted in recent work in Kosovo by others.

Costing for major new road and bridge works assumes that significant lengths of new work will be contracted in each construction contract.
For bridges, cost estimates were carried out on a per square metre of deck basis, tunnels on a per kilometre of route basis and road works similarly (after deducting the length of the route in tunnel or on bridges) according to terrain type.

Bridges over the M25 motorway are listed in the Route 7/M25 Motorway Design Study and were costed on this basis for both the full motorway alternative and that for 2-lanes capable of being upgraded to a 4-lane motorway. An average percentage rate for such bridges over the road, calculated from the M25 costings, was adopted for such alternatives on Route 6.

For the roadworks in each alternative, the road pavement costs were worked up (pavement layers, road marking and signing, safety barriers etc, and - for motorways - an SOS system). Then for the various alternatives (involving new works) the costs of land clearance, bulk earthworks and topsoiling were calculated based on volumes according to terrain type (flat/rolling, hilly or mountainous) with side slopes at 1:1.5 for both cut and fill and assuming heights of fill/depts of cut averaging about 3, 5.5 and 8 metres respectively. Allowance was made for retaining walls in mountainous terrain at 5% of total cost for "other structures".

For cost estimates at this level of accuracy, it is considered that earthworks do not need to "balance" since it is a reasonable assumption that the costs of excavating in cuttings and transporting material to the site of embankments is the same as winning and transporting the same volume from "borrow" pits. Use of geotextile has been assumed for 30% of the route where on embankment in flat/rolling terrain.

Safety fencing in the central reservation has been assumed throughout the length of the road in the full motorway case and for 25% of the length of each shoulder where on embankment in all new works cases.

Land purchase costs were calculated from the area of land clearance as determined from the works costs (which include a road reserve of an additional 5 m either side) multiplied by the appropriate unit price.

The following were added to the sub-totals of costs worked up from the unit rates:

- 6% for design, supervision and management,
- 5% for preliminary and general items (e.g. mobilisation, setting up contractor's facilities, insurances etc),
- 3% for miscellaneous works ordered under Dayworks,
- 10% for contingencies (including environmental mitigation measures).
A4.5.2 Costing of Roadworks

Unit rates for works

Unit rates for roadworks were tabulated from a number of winning tenders for contracts in the region (a Turkish contractor in Bulgaria, a German-led consortium and a national contractor in the Czech Republic, latest revised contract rates for Sofia airport, various Engineers’ estimates, including one for a major World Bank project in Albania), as well as from 3 smaller-volume local contracts. Unit rates were corrected to allow for differing (or lack of) costing of Preliminary and General Items and also corrected to 2006 prices. Extremely high and low unit rates were ignored and, in general, the remainder averaged in the selection of an appropriate unit rate. The results are shown in Table A4-2.

Table A4-2: Unit costs for Road Construction

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Albania B&amp;H PRR3 estimate 2000</th>
<th>Kosovo contracts</th>
<th>513 CZ 1 514 CZ 2</th>
<th>514 Ljubljana m/w Bulgaria 2006</th>
<th>Sofia Airport 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary and General (as % of total)</td>
<td>6.61</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
</tr>
<tr>
<td>Site clearance</td>
<td>m²</td>
<td>0.17</td>
<td>3.48</td>
<td>1.98</td>
<td>0.17</td>
</tr>
<tr>
<td>Excavate and transport material</td>
<td>m³</td>
<td>4.68</td>
<td>2.00</td>
<td>3.88</td>
<td>4.39</td>
</tr>
<tr>
<td>Prepare formation level</td>
<td>m²</td>
<td>0.39</td>
<td>0.45</td>
<td>0.84</td>
<td>0.56</td>
</tr>
<tr>
<td>Excavate/borrow and transport material</td>
<td>m³</td>
<td>3.70</td>
<td>2.93</td>
<td>2.93</td>
<td>4.68</td>
</tr>
<tr>
<td>Deposit, spread and compact material</td>
<td>m³</td>
<td>5.50</td>
<td>3.21</td>
<td>2.31</td>
<td>1.27</td>
</tr>
<tr>
<td>Borrow, transport, place and compact</td>
<td>m³</td>
<td>3.33</td>
<td>6.56</td>
<td>6.56</td>
<td>4.06</td>
</tr>
<tr>
<td>Topsoil spreading 30 cm thick</td>
<td>m²</td>
<td>0.40</td>
<td>0.39</td>
<td>0.39</td>
<td>0.39</td>
</tr>
<tr>
<td>Sub-base 30 cm thick</td>
<td>m²</td>
<td>3.37</td>
<td>1.73</td>
<td>5.40</td>
<td>2.43</td>
</tr>
<tr>
<td>Gravel base course 20 cm thick</td>
<td>m²</td>
<td>2.25</td>
<td>2.43</td>
<td>3.14</td>
<td>16.86</td>
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<td>AC base course 21 cm thick (incl prime)</td>
<td>m²</td>
<td>20.11</td>
<td>14.83</td>
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<td>AC wearing course 4 cm thick</td>
<td>m²</td>
<td>2.83</td>
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<td>Shoulder</td>
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<tr>
<td>Concrete culvert 0.8 m Ø</td>
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<td>76,71</td>
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<td>Concrete culvert 1.0 m Ø</td>
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<td>19.47</td>
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<td>Retaining walls</td>
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<td>Concrete safety barrier</td>
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<td>Steel safety barrier</td>
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<td>Dayworks (as % of total)</td>
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Notes:
* PRR3 rate used for all drainage of € 105/linear metre of motorway
** Included in earthworks
- all rates quoted in EUR
- adjusted for inflation to Sept 2006 prices
- originally in USD by 2%/year
- originally in EUR by 4%/year
- corrected for prelims and general Items
- adjusted for layer thickness where appropriate
1.08 = ignored in consideration of selected rate
New full dual 2-lane motorway
Cost estimates were made for new dual 2-lane motorway alignments for all segments proposed for new works in this study. However, since a full motorway alternative was never selected for the earlier feasibility study for segment 6-7 (south of Doganaj), no practical alignment has been drawn, for the purposes of this current study a "guesstimate" has been adopted based on mountainous terrain and includes 2 route km in tunnel and 2 km on viaduct.

Grade separated intersections were costed assuming that all will be in flat/rolling terrain and assuming an overhead rotary (large roundabout with two bridges over the route) type of intersection at a unit price of € 1.9 million. It is assumed that the costs of all types of such intersections are similar when bridge costs are taken into account.

New 2-lane road capable of being upgraded to full motorway
Designs involving a 2-lane road on a new alignment (Typical Cross-Section Type 2) include Route 6's Segments 6-2, 6-3, 6-4 and 6-5 and the whole of Route 7.

The costings assume that full grade separated intersections are provided as for the full motorway alternative, that bridges over the route will span the future full width motorway and that land will be purchased for the full motorway width in advance. It is also assumed that the future motorway design will be such that crossings of rivers, valleys, railways and other roads will be carried on twin-bridges; only one of these will be constructed initially for the 2-lane road.

2-lane road on a new alignment
This design applies to all by-passes.

At-grade junctions were costed as "T" junctions or roundabouts at € 0.4 million each (cross roads are assumed to be two staggered "T" junctions or roundabouts) and include for adjustment of the connecting local road network. These have been provided at each end of the bypasses, at all junctions with regional roads and as access to significant local communities.

High class-upgrade of existing 2-lane road
This applies in Option E to Segments 6-1a, (incorporating a new 2-lane by-pass of Pejë), 6-2, 6-7b (including a climbing/overtaking lane), 7-1, 7-6 (incorporating new 2-lane by-passes of both Suharekë and Shtime) and 7-8 (incorporating a new 2-lane south-western by-pass of Prizren).

The design involves widening of the shoulders, pavement repairs and over-lay, improving sight distances and the layout of junctions, upgrading drainage provision, stabilising cut and fill slopes, and all the works associated with the reference case; this has been costed at 20% of the roadworks element of a new 2-lane road plus the expenditure on the repair or replacement of damaged or under-strength bridges. Associated by-passes have been costed as for a 2-lane road on a new alignment and climbing/overtaking lanes individually costed.
A4.5.3 Costing of Structures

New works
For new longer, large volume bridges, in flat/rolling terrain a rate of €1,200 per square metre of deck was generally used (based on a number of on-going contracts in the Czech Republic); this figure was raised for hilly and mountainous terrain to €1,350 and €1,500 per square metre of deck respectively.

For tunnels, a unit rate of € 33.5 million per km of twin-bore (2x2 lanes) tunnel has been assumed based on the prices of recent NATM-driven New Austrian Tunnelling Method (NATM) tunnels between 1.5 and 2.0 km long in the Czech Republic. [There is no recent experience of major bored tunnel construction in Kosovo or Albania on which to draw].

Rehabilitation works
Costs for incorporating the existing road (upgrading, widening etc) include the cost of any necessary bridge rehabilitation works or their replacement.

Twelve of the existing bridges in Kosovo on the M2 road between Prishtinë and Kaçanik were rehabilitated in the period 2003 – 2005 by a French contractor. Reflecting their low volume "one-off" nature, the following rates from these rehabilitation works and from other bridge rehabilitation works in the region were adopted for rehabilitation and replacement works:

- rehabilitation of footways, safety barrier and guard rails at €2,000 per linear metre of bridge (includes both sides)
- strengthening of superstructure and possibly also substructure at €700 per square metre of bridge deck (also includes rehabilitation of footways, safety barriers and guardrails).
- replacement bridges at €1,700 per square metre of bridge deck (standard bridges of normal complexity). This rate was also used for smaller bridges.

A4.5.4 Maintenance Costs
Unit rates for future routine and periodic maintenance were largely based on information on unit costs and type of maintenance works presented in the Master Plan for the Maintenance and Development of the Road Network in Kosovo and from the Consultant's experience elsewhere in central and Eastern Europe. For unit rates for such expenditure in future on new roads, see those tabulated in Appendix 5's Table A5-1.

A4.5.5 Unit rates for Land Acquisition
Prices for land were obtained from land agents in Kosovo for typical major towns (Prishtinë, Pejë and Prizren), for other urban/village communities, for agricultural land, for forest and for mountainous terrain and are set out in A4.3.

---

32 New Austrian Tunnelling Method
Table A4-3: Unit Rates for Land Acquisition

<table>
<thead>
<tr>
<th>Location</th>
<th>rate/m² (€)</th>
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<tr>
<td>Prishtinë, Pejë and Prizren urban areas</td>
<td>90.0</td>
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<td>Other urban areas/village</td>
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<td>Forest area</td>
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<td>Mountain area</td>
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A4.6 Environmental mitigation measures

The Environmental Assessment Report prepared as part of the earlier feasibility study discusses measures for:

- enhancing human safety and mobility within settlements
- mitigating against emissions and spills
- controlling soil erosion and risk of rock slides
- mitigating against impacts on bodies of water
- protecting cultural heritage and national monuments, and for
- the protection of nature and natural heritage,

Furthermore, the report notes that the presence and possible environmental conflicts of the lignite fields and mining area west of Prishtinë (which may be relevant to new alignments over Segment 7-3) have not been assessed.

The estimated works costs include a contingency of 10% and which are deemed to allow, inter alia, for the cost of providing environmental mitigation measures.

A4.7 Cost Estimates of Options
Option 1: Recommended investment packages for the two routes

<table>
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<th>Location Description</th>
<th>Recommended intervention</th>
<th>Investment</th>
<th>Remarks</th>
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<tr>
<td>Prishtinë - administra-&lt;br&gt; tive boundary with&lt;br&gt; Serbia (route 7)</td>
<td>Motorway close to Prishtinë, new 2-lane road between Podujevë and Besi and upgrade of existing road to the administrative boundary with Serbia</td>
<td>€132.8 million</td>
<td>Motorway project should be closely co-ordinated with the Prishtinë ring road project.</td>
</tr>
<tr>
<td>Prishtinë - Border with&lt;br&gt; Albania (route 7)</td>
<td>Motorway between Prishtinë and Shtime and upgrade of existing road for other parts of route</td>
<td>€133.4 million</td>
<td>Motorway design should be optimised including supplementary interchange at Lipjan</td>
</tr>
<tr>
<td>Prishtinë - Border with&lt;br&gt; FYROM (route 6)</td>
<td>New high standard 2-lane road between Prishtinë and Doganaj, and upgraded existing road to border</td>
<td>€97.5 million</td>
<td>-</td>
</tr>
<tr>
<td>Prishtinë - Border with&lt;br&gt; Montenegro (route 6)</td>
<td>New high-standard 2-lane road from bypass at Fushë Kosovë to Komorane. Restoring design standards and smaller upgrading works on other parts of the route</td>
<td>€53.2 million</td>
<td>Sections close to Prishtinë should be co-ordinated with construction of Fushë Kosovë bypass</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>€416.9 million</td>
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Source: Feasibility Study and Environmental Assessment for two main road axes in Kosovo, COWI A/S, Dec 2006

Investment costs for each segment for the reference situation and the investment alternatives, MEUR, 2006 prices

<table>
<thead>
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<th>Segment number and name</th>
<th>Reference</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
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<td>6-1 Border to Montenegro - Pejë</td>
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<td>17.7</td>
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<td>6-2 Pejë - Kline</td>
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<td>6-3 Kline - Komorane</td>
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<td>6-4 Komorane - Fushë Kosovë</td>
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<td>6-5 Lipjan (QMI junction) - Ferizaj</td>
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<td>52.9</td>
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<td>7-1 Administrative boundary to Serbia - Podujevë</td>
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<td>7-6 Shtime - Suharekë</td>
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<td>7-7 Suharekë - Prizren</td>
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<td>7-8 Prizren - Border to Albania</td>
<td>0.6</td>
<td>3.4</td>
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</table>

Source: Feasibility Study and Environmental Assessment for Two Main Road Axes in Kosovo, (COWI A/S for MTC/UNMIK), December 2006
Option 2

Study to Assess the Viability and Options for PPP in the Highway Sector in Kosova

Summary of conceptual expenditures (strategic planning phase) for Route 7 - with R120 and M2 links

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Notes:
1) Costs in €m (economic costs at 2006 prices, i.e. excluding VAT)
2) Generally assumes site investigation and design takes place in year -2
3) Generally assumes land acquisition takes place in year -1
4) The "½m/way" option assumes that all land will be purchased for the full motorway.
5) The split between public and private costs is only notional at this point in the planning process
### Study to Assess the Viability and Options for PPP in the Highway Sector in Kosova

#### Summary of Conceptual Expenditures for Toll Motorway Development (in millions of €)

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| Notes                  | 1) Red figures are capital investment costs by public sector  
2) Blue figures are capital investment costs by private sector  
3) Green figures are annual operations and maintenance costs (road and tolls) contracted to the private sector  
4) This option assumes roads are constructed by the public sector, and then contracted to the private sector to install and operate toll system and perform routine maintenance of roads  
5) Costs in €m (economic costs at 2006 prices, i.e. excluding VAT)  
6) Generally assumes site investigation and design takes place in year -2  
7) Generally assumes land acquisition takes place in year -1  
8) Assumes "½ m/way" option for R7/R6 link but assumes that all land will be purchased for a future full motorway  
9) Does not allow for operation and maintenance costs of existing roads  
10) Road O & M includes routine (excluding winter) and periodic road, bridge and tunnel operation and maintenance costs  
11) Toll Operations Totals = additional toll system operation and maintenance costs

Plan period total  
Deferrals total  
Corridor Total

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| Notes      | 1) Red figures are capital investment costs by public sector  
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5) Costs in €m (economic costs at 2006 prices, i.e. excluding VAT)  
6) Generally assumes site investigation and design takes place in year -2  
7) Generally assumes land acquisition takes place in year -1  
8) Assumes "½ m/way" option for R7/R6 link but assumes that all land will be purchased for a future full motorway  
9) Does not allow for operation and maintenance costs of existing roads  
10) Road O & M includes routine (excluding winter) and periodic road, bridge and tunnel operation and maintenance costs  
11) Toll Operations Totals = additional toll system operation and maintenance costs
### Summary of Conceptual Expenditures for Toll Motorway Development (in millions of €)

#### Option 4 - Develop entire Route 7 (with R120 and M2 links) in 6 Year Implementation Time Frame

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#### Notes
1. **Red** figures are capital investment costs by public sector.
2. **Blue** figures are capital investment costs by private sector.
3. **Green** figures are annual operations and maintenance costs (road and tolls) contracted to the private sector.
4. This option assumes roads are constructed by the public sector, and then contracted to the private sector to operate and maintain toll system and perform routine maintenance of road.
5. Costs in €m (economic costs at 2006 prices, i.e. excluding VAT).
6. Generally assumes site investigation and design takes place in year -2.
7. Generally assumes land acquisition takes place in year -1.
8. Assumes "½ m/way" option for R7/R6 link but assumes that all land will be purchased for a future full motorway.
9. Does not allow for operation and maintenance costs of existing roads.
10. Road O & M = includes routine (including winter) and periodic road, bridge and tunnel operation and maintenance costs of existing roads.
11. Toll Operations Totals = additional toll system operation and maintenance costs.
### Summary of Conceptual Expenditures for Toll Motorway Development (in millions of €)

#### Option 5 - Develop entire Route 7 (with R120 link) plus Route 6 from Macedonian border via short R7/R6 link to QMI junction, in a 6 Year Implementation Time Frame

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<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>6-5b (11 km)</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
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<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>6-6 (10 km)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>6-7a (7 km)</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>6-7b (11 km)</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>R7/6 Link (½ m/way)</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

#### Total Expenditures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1514</td>
<td>1914</td>
<td>1514</td>
<td>1914</td>
<td>1514</td>
<td>1914</td>
<td>1514</td>
<td>1914</td>
<td>1514</td>
<td>1914</td>
<td>1514</td>
<td>1914</td>
</tr>
</tbody>
</table>

**Notes:**
1. Red figures are capital investment costs by public sector.
2. Blue figures are capital investment costs by private sector.
3. Green figures are annual operations and maintenance costs (road and tolls) contracted to the private sector.
4. Assumes roads are constructed by the public sector, and then contracted to the private sector for maintenance.
5. Costs in €m (economic costs at 2006 prices, i.e. excluding VAT).
6. Generally assumes site investigation and design takes place in year -2.
7. Generally assumes land acquisition takes place in year -1.
8. Assumes tolls will be purchased for a future full motorway.
9. Land is included.
10. Costs in €m (economic costs at 2006 prices, i.e. excluding VAT).
11. Toll Operations Totals = additional toll system operation and maintenance costs.
Appendix 5  Road Maintenance Strategy

Privatised road maintenance contract strategy

Introduction
The Consultant understands that road maintenance will shortly be the subject of a separate study focusing on performance-based maintenance contracts in addition to the recent study on the financial sustainability of the roads sector carried out for the MTC\(^{34}\). This activity is a brief analysis of current road maintenance practices, and development of broad recommendations for any potential improvement that may become apparent to serve as input these other technical assistance projects.

The subject is therefore only briefly discussed here insofar as it is relevant to the investments proposed, with limited comment on the existing situation.

Maintenance Expenditure for New Alignments
The Consultant has based its estimates for routine, periodic and operational costs, after the initial investments proposed in this report for the various road segments, on the rates set out in Table A5-1.

Table A5-1  Maintenance Expenditures for new alignments on new 2 and 4 lanes motorways

<table>
<thead>
<tr>
<th>Maintenance type</th>
<th>4-lane motorway</th>
<th>New 2-lane road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine winter #</td>
<td>5 500</td>
<td>3 300</td>
</tr>
<tr>
<td>Other routine #</td>
<td>25 000</td>
<td>15 000</td>
</tr>
<tr>
<td>Emergency #</td>
<td>1 500</td>
<td>900</td>
</tr>
<tr>
<td>Tunnel operation and maintenance *</td>
<td>220 000</td>
<td>132 000</td>
</tr>
<tr>
<td>Periodic #+</td>
<td>38 000</td>
<td>19 000</td>
</tr>
</tbody>
</table>

Source: Consultant’s estimates

Notes:
* applies only to lengths in tunnel and assumes full compliance with the EU Directive (2004/54/EC) on minimum safety requirements for road tunnels.
# applies to all road lengths outside tunnels and to bridge lengths.
+ applied from 6\(^{th}\) year after opening to traffic.

In general, rates for 2-lane roads on new alignments were estimated at 60% of those for 4-lane motorways for routine maintenance and at 50% for periodic maintenance. Appropriate adjustments were made for lengths of road with climbing lanes.

\(^{34}\) Strengthening the Financial Sustainability of the Roads Sector in Kosovo, ECORYS Nederland BV (for the Ministry of Transport and Communications, Kosovo, and World Bank, April, 2007)
The Consultant supports the opinion of the MTC that all new limited access highways be operated and maintained under specific new organisation(s), particularly where operated under PPP arrangements and tolled.

**Routine Maintenance of the existing national road network**

**Organisation**

Current operation and maintenance of the national road network is the responsibility of the Maintenance Department of the General Road Directorate. All work is contracted out on a regional basis separately for winter and summer routine maintenance and managed by a small team reporting to the Director for Maintenance. Salt for winter maintenance is provided free-of-charge to the contractors by the MTC and some GRD-owned plant is provided on loan for operation by contractors at lower rates than their own plant.

In practice routine maintenance contracts are currently restricted to a maximum of 12 months for budgetary reasons. The law requires that public bodies wishing to let contracts longer than this must ensure that budgetary provision for the longer period is assured. However there is no reason why such assurance should not be sought from the MoFE; the Public Procurement Agency advised that it is aware of a number of maintenance and operation contracts in other sectors where multi-year contracts have been awarded. Such contracts would encourage maintenance contractors to invest in appropriate plant and equipment and should result in lower unit rates being tendered. The Consultant supports the key finding in the Kosovo Road User Charges Study\(^3\) that alternative rules be put in place to allow more flexibility to permit GRD to award multi-year contracts and to permit the role-over of annual budgeted funds to subsequent years if necessary. In the Consultant’s opinion such contracts should be for at least 3 years and ideally for 5 years.

The national road network currently consists of Main (or "Magistrale", M) and Regional (R) roads and which include asphalt-paved and gravel-surfaced roads as set out in Table x.b. The totals of the various categories are reported to be:

<table>
<thead>
<tr>
<th>Type of Road</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt-paved M roads</td>
<td>644.0</td>
</tr>
<tr>
<td>Asphalt-paved R roads</td>
<td>1027.8</td>
</tr>
<tr>
<td>Gravel-surfaced M roads</td>
<td>4.9</td>
</tr>
<tr>
<td>Gravel-surfaced R roads</td>
<td>292.2</td>
</tr>
</tbody>
</table>

**Annual expenditure**

Table A5-1 also sets out the value of the most recent summer (2006) and winter (2006/07) maintenance contracts on which an average (gravel- and asphalt-paved roads) of € 2,770 per route km has been spent on routine maintenance; this is very low (about half of that recommended by Roughton assuming that the network is fully rehabilitated) and lower than currently budgeted, as Ecorys points out in its Inception Report. The Consultant suggests that spending on

\(^3\) Kosovo Road User Charges Study, Roughton International (Ministry of Transport and Communications, UNMIK, January 2004)
routine maintenance (including bridges) of the existing asphalt-paved road network should be of the order of €15,000 per route km.

**Table A5-2 Latest Annual Routine maintenance contracts**

<table>
<thead>
<tr>
<th>Region</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of GRD Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prishtinë</td>
<td>182.6</td>
<td>65.5</td>
<td>87.3</td>
<td>57.2</td>
<td>55.1</td>
<td>73.3</td>
<td>25.0</td>
<td>98.0</td>
<td>644.0</td>
</tr>
<tr>
<td>Gjilan</td>
<td>143.8</td>
<td>121.6</td>
<td>135.5</td>
<td>187.4</td>
<td>147.2</td>
<td>145.7</td>
<td>129.6</td>
<td>17.0</td>
<td>1.027.8</td>
</tr>
<tr>
<td>Ferizaj</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.9</td>
<td>0</td>
<td>0</td>
<td>4.9</td>
</tr>
<tr>
<td>Prizren</td>
<td>35.2</td>
<td>48.0</td>
<td>57.0</td>
<td>22.0</td>
<td>19.0</td>
<td>66.0</td>
<td>32.0</td>
<td>13.0</td>
<td>292.2</td>
</tr>
<tr>
<td>Peje</td>
<td>804.143</td>
<td>630.088</td>
<td>385.474</td>
<td>399.392</td>
<td>276.115</td>
<td>402.103</td>
<td>376.655</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Mitrovice1</td>
<td>3.437</td>
<td>3.843</td>
<td>1.996</td>
<td>2.292</td>
<td>2.348</td>
<td>2.205</td>
<td>3.359</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Mitrovice2</td>
<td>3.437</td>
<td>3.843</td>
<td>1.996</td>
<td>2.292</td>
<td>2.348</td>
<td>2.205</td>
<td>3.359</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Kosovo</td>
<td>3.437</td>
<td>3.843</td>
<td>1.996</td>
<td>2.292</td>
<td>2.348</td>
<td>2.205</td>
<td>3.359</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*Note* in EUR with contingencies, without VAT

**Source:** Maintenance Division, GRD

**Periodic Maintenance**

There does not appear to be any planned periodic maintenance but a number of road sections and individual bridges have been rehabilitated since the end of hostilities under grant aid.
Appendix 6   Legal Framework Review

This legal framework report summarizes certain issues and other matters that have been reviewed by us at the request of COWI in connection with the Study to Assess the Viability and Options for Private Sector Participation in the Highway Sector in Kosovo (the “Project”).

We have assumed that all copied documents used for the assessment of the legal framework were complete, were still in force, were not repealed or amended and that all the agreements reviewed were duly authorized and validly executed by the parties with the necessary capacity. We have further assumed that there are no undisclosed laws, orders, decrees, regulations which could affect the information reviewed by us.

A list of the documentation reviewed by us is attached as (Schedule 1) at the end of this appendix.

Executive Summary

Concessions
The Concession Law constitutes a solid basis for the implementation of concessions in the highway sector in Kosovo. It is entirely based on the international best practice of the UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects. Pursuant to Regulation, the Minister of Transport and Communication is responsible to secure funding and organise concessions for road infrastructure.

However, given that such implementation requires the existence and efficiency of other laws and institutional arrangements, the effectiveness of the overall regime of highway concessions will depend on such external factors as well.

Public Procurement
The Public Procurement Law constitutes a solid basis for the award of non-concession PPPs in Kosovo. This law also applies for the award of works concessions. It provides for the principles of equality of treatment, non discrimination and transparency and the general use of open competitive procedures.

Construction and operation of a highway is not specifically mentioned as a “public service activity”, but we believe that such activities would fall into this category. As such, they can be entrusted to a private operator based on “special or exclusive rights” (which, in our view includes concessions).

The Public Procurement Law provides that if procurement will give rise to financial obligations that are to be satisfied from public funds of future fiscal years, the public contract shall contain a provision conditioning the enforceability of such obligations on the availability of funds for purposes of satisfying these obligations and in a sufficient amount. This provision can constitute a barrier to certain PPP projects, including highways, because the risk of default by the contracting authority is transferred to the private partner or the financial institutions. In most concession/ PPPs, when the contracting authority is not...
able to satisfy its financial obligations, this should constitute a default under the contract and the private party should be indemnified.

**Sector specific issues**
The Law on Roads is a relatively concise law which divides the responsibility for public roads between the MTC, responsible for Main and Regional Roads and the Municipalities, responsible for Local Roads.

It provides for the possibility of toll collection, but provides that this issue should be regulated more in detail by the MTC. We have not been provided with further details in this respect.

The provision of the Law that allows Municipalities and the MTC to contract with private operators should be clarified.

**Foreign Investment**
The Foreign Investment Law provides general principles related to foreign investment protection in Kosovo including fair and equitable treatment, non discrimination, authorities’ compliance with obligations, stability of investment regime, right to due process, free transfer of currency as well as utilisation of international arbitration (ICSID, UNCITRAL, ICC).

We note however that all provisions related to expropriation and compensation in case of expropriation has been deleted from the Foreign Investment Law by the Regulation promulgating such law.

**Corporate**
The Company Law does not contain any provisions that may negatively impact the implementation of highway PPPs in Kosovo.

**Property rights**
Property rights pertaining to immovable's are registered with the Municipal Cadastral Offices. We are not aware how the cadastre system functions in practice, but suspect that, like in most countries in the region, not all immovable's and rights attached thereto are properly registered.

**Construction**
The Construction Law and Law on Spatial Planning divide the responsibility for the preparation of various plans (Spatial Plan of Kosovo, Municipal Development Plans, Urban Development Plans as well as Urban Regulatory Plans) as well as issuance of urban, construction and use permits between the Municipalities and the Ministry of Spatial Planning. Generally, Municipalities are responsible for the issuance of permits. However, for main public roads, the Ministry of Spatial Planning is responsible.

Under the Construction Law, a construction permit expires if the construction does not start within two years from construction permit issuance.

The Consultant note that the Law defines an “Infrastructure Plan” as a “plan presenting installations and existing buildings and planned underground and
above-ground installations” *inter alia* in the field of transport, but does not provide further details related thereto.

The Construction Law should be clearer with respect to the possibility of foreign persons to be carry out construction or to act as supervising engineers.

**Expropriation**

Under the Draft Expropriation Law, one of the valid grounds for expropriation is when the purpose thereof is *inter alia* to construct or enlarge public infrastructure including public roads.

The Draft Expropriation Law clearly defines the steps to be undertaken in the context of the expropriation (eventual preparatory works, expropriation procedure, compensation, etc.) as well as the bodies responsible for such steps.

The Consultant recommends that the time-period for revoking the expropriation decision for Main Roads Concessions/PPPs be extended to 5 years (where the works have not been initiated) in order to allow such complex projects additional time.

1. **Concession Law**

We have reviewed the Law n°02/L-44 On the Procedure For The Award Of Concessions dated 3 October 2005 (the “*Concession Law*”) and the Regulation n°2006/27 on the promulgation of the Concession Law adopted by the assembly of Kosovo (UNMIK/REG/2006/27) dated 27 April 2006.

The Concession Law is entirely based on UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects. These Model Legislative Provisions represent international “best practice”.

The Consultant note however that the Concession Law does not contain a list of sectors in which Concession Contracts may be granted. However, the definition of “Concession Contract”, “Infrastructure Project” and “Infrastructure Facilities” (see paragraph below) is sufficiently large to authorize concessions in the highway sector, with one or more components such as: design, construction, development and operation of new highways or the rehabilitation, modernization, expansion or operation of existing highways, if any.

The Consultant also note that the Concession Law defines the term “Contracting Authority” by referring to another law giving the authority to an entity to enter into a Concession Contract. Pursuant to UNMIK Regulation n°2001/19 of 13 September 2001 (“Regulation 2001/19”) the Ministry of Transport and Communication (the “MTC”) is designated as responsible “in the specific sector of road infrastructure” to “secure funding and organize the award of concessions”.

“Concession Contract” is defined as a “*contract concluded between a Contracting Authority and a Concessionaire that has its principal object the implemen-
tation of an Infrastructure Project, the performance of which is compensated, in whole or in part, by a grant of a right to exploit the object of such contract”.

“Infrastructure Project” is defined as the “design, construction, development and operation of new Infrastructure Facilities or the rehabilitation, modernization, expansion or operation of existing Infrastructure Facilities”, “Infrastructure Facility” being “physical facilities and systems that directly or indirectly provide services or items of value to or for the benefit of the general public”.

Even though no specific reference is made to the transfer of exploitation risk in case of a concession as opposed to public procurement, this may be implied from the definition of the Concession Contract and should be used when selecting the appropriate legislation for a particular contract.

The Concession Law provides that matters not covered by the Concession Law are regulated by the Public Procurement Law and more specifically by the provisions on works concession. It would be preferable if it was stated that all contracts that do not fall with the definition of “Concession Contract”, should be granted following the Public Procurement Law, even though this may be implied.

Regarding provisions that may be of particular interest for highway concessions, the Concession Law provides, in line with UNCITRAL Model Provisions that:

- the Concession Contract shall provide for the remuneration of the Concessionaire, whether consisting of tariffs or fees for the use of the facility or the provision of services; the methods and formulas for the establishment or adjustment of any such tariffs or fees; and payments, if any, that may be made by the Contracting Authority or other Public Authority;
- the Contracting authority shall make available or assist the Concessionaire in obtaining rights related to the project site;
- the Concessionaire shall have the right to enter upon, transit through or do work on fix installations upon property of third parties (in accordance with Law on Property Rights);
- the Concessionaire shall have the right to charge, receive and collect tariffs or fees for the use of the facility in accordance with the Concession Contract which shall provide for methods and formulas for establishment of those tariffs or fees, in accordance with the rules established by a “Public Authority”. (The Consultant is not aware of any such rules being established regarding toll charges);
- The Contacting Authority shall have the power to agree to make direct payments to the Concessionaire as a substitute or in addition to tariffs or fees. (This leaves the possibility to structure a highway PPP not only as a “pure” concession, with the total transfer of risk to the concessionaire, but to share this risk, where necessary with the Contracting Authority. In that case, care should be taken when selecting the applicable award procedure);
- Compensation for early termination and in case of change in law; and
Possibility to create security interests, subject to the restrictions of other relevant laws. (We are not aware of any of such restrictions).

Given Regulation 2001/19, it is within the power of the MTC to “organize the award” of concessions and as such it could take the responsibility to set up a concession award committee, perhaps with representatives from various Ministries for the purpose of expediting concession awards and ultimately permitting and approvals. This could be done via secondary legislation such as an “Administrative Direction”.

2. Public Procurement Law


The Public Procurement Law regulates the award of “public contracts” comprising:

- service contracts;
- supply contracts;
- works contracts (including works concession contracts, defined as a works contract the performance of which is compensated, in whole or in part by a right to exploit the object to such contract); and
- immovable property contracts (defined as contracts for pecuniary interest concluded between a contracting authority and any person, undertaking or contracting authority that relates exclusively to the acquisition of immovable property or and interest in immovable property).

The Public Procurement Law provides for the principles of equality of treatment, non discrimination and transparency. The general tendering procedure for the award of public procurement contracts is the open procedure. Restricted and negotiated procedures require the authorization by the Public Procurement Authority and the satisfaction of conditions provided in the Law (e.g. for the general restricted procedure- complexity , for special restricted procedure- highly intellectual and complex consulting services; for negotiated procedure with notice publication- inability to define contract specifications, etc).

The Public Procurement Law defines “public service activity” as activity involving inter alia the “provision or operation of a fixed physical network intended to provide a service to the public in connection” with inter alia transport. Construction and operation of a highway are not specifically mentioned as a “public service activity”, but we believe that it may fall into such category.

The Public Procurement Law further provides that a “public service operator” i.e. person engaged in public interest activity, may be a person which is not a public authority or public undertaking if such person is engaged by a competent public authority on the basis of “special or exclusive rights”. No specific reference is made to concession arrangements, but the definition of “Special of Ex-
**Exclusive Rights** under the Public Procurement Law and **Concession Contract** under the Concession Law, implies that the performance of a public interest activity may be entrusted to a private operator through the concession contract.

A person that performs a public service activity on the basis of special or exclusive right shall respect the Public Procurement Law when awarding medium or large value public contracts (as defined in the Public Procurement Law). In addition, where the works concessionaire is not a contracting authority, and when concluding procurement activities having an estimated value in excess of 100,000 EUR, the public procurement rules apply to them. We note that the amount fixed in the EU Public Contracts Directive in this respect is much higher (6 242 000 EUR).

The Public Procurement Law requires contracting authorities to prepare yearly procurement forecasts and submit them to the Public Procurement Agency, but we understand that it does not mean that the Contracting Authority can not decide to proceed with additional procurements in the course of the year. It also requires contracting authorities to conduct a formal needs assessment of each public procurement and ensure the availability of funds.

Article 8.3 provides that if a procurement will give rise to financial obligations that are to be satisfied from public funds of future fiscal years (which may be the case in certain highway projects), (i) the contracting authority shall ensure that there is a “reasonable basis” to expect that such funds will be available and (ii) the public contract shall contain a provision conditioning the enforceability of such obligations on the availability of funds for purposes of satisfying and in an amount sufficient to satisfy the obligations. Provision (ii) above constitutes a barrier to government support of certain PPP projects, including highways, because the risk of default by the contracting authority is transferred to the private partner or the bank. In case the contracting authority is not able to satisfy its financial obligations, it should constitute a default under the contract and the private party should be entitled to be indemnified.

Generally, public procurement contracts are awarded and entered into by a Procurement Officer (head of Contracting Authority Procurement department), but in case of large value contracts (contract the estimated value of which is equal or greater than 100,000 EUR (for services and supply) and 250,000 EUR (for works of immovable property contracts) and “technically complicated matters”, a Contract Award Committee is established by the Public Procurement Agency.

A public procurement contract is awarded either to the economic operator which has submitted the lowest-priced tender or to the one that has submitted the most economically advantageous render. The criteria for determining the

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36 “Rights that arise from a grant or authorization made by a competent public authority pursuant to any legislative, regulation or administrative provision that (i) has the effect of limiting to one or more entities the right or ability to engage in certain activities and (ii) substantially affects the right or ability of other persons, undertakings, bodies or organizations to carry out such activity”.

most economically advantageous tender relate to (i) the tender price, (ii) terms of payment, (iii) O&M and life costs, (iv) delivery date, period and period of completion, (v) functional characteristics, (vi) after sales services and technical assistance and (viii) the terms of any warranties or guarantees. Such criteria are adapted for eventual tenders for non-concession highway PPPs.

The Public Procurement Law provides that the tender security requirement may be imposed and that the value of such security shall be no less than 3% and no greater than 5% if the estimated value of the public contract. The Public Procurement Law provides for a mandatory performance security for inter alia (i) works contracts, (ii) contracts involving many workers, subcontractors or suppliers and (iii) other medium or large contracts if there is a risk that a breach of the contract would cause material damage to the Contracting Authority. In case of (i) and (ii), the minimum amount is 15% of the contract value; in case of (iii), the minimum amount is 10% of the contract value and in both cases the level thereof should be consistent with usual practices. The fixed amounts are reasonable for highway PPPs.

Regarding works concessions, the Public Procurement Law provides that the value of works that the tenderer wishes to subcontract should be specified in the tender.

The Public Procurement Law provides for a possible review mechanism by any interested party before a review panel appointed by the Public Procurement Regulatory Commission, and courts.

3. **Roads**


Under the Law on Roads, public roads are designated for general use. There are four categories of public roads: Main Roads (connecting major cities and eventually areas outside Kosovo), Regional Roads (connecting two or more major cities), Local Roads (connecting residential areas inside municipalities) and Residential Roads.

Main and Regional Roads are under the authority of the MTC responsible for their management, maintenance and construction. Local and Residential Roads are under the authority of Municipalities. The Law on Roads provides that the Municipalities should “seek advice” from the MTC for roads management, maintenance and construction, but does not provide further details in this respect.

Under the Law on Roads, a Municipality may expropriate any land the acquisition of which is necessary for the use, construction or maintenance of public roads. For Main and Regional Roads, the expropriation is done at the request of the MTC. However, the Law on Roads refers to the Law on Expropriation regarding the procedure. Given that the Expropriation Law has not been adopted, those provisions of the Law on Roads remain ineffective for the moment.
Regarding the financial aspects, the Law on Roads provides that maintenance and construction of public roads financed from the Kosovo Consolidated Budget, taking into account *inter alia* fees for the use of roads and fees from concessions. It also specifically provides that the users of public roads may be subject to the payment of certain fees, based on distance and fees category. We understand that specific rules should have been adopted in this respect by the MTC, but were not provided with further details in this respect.

Regarding the technical aspects, the Law on Roads provides that the MTC issues rules on technical standards for construction and reconstruction of public roads. It also prepares annual maintenance plans for Main and Regional Roads. Municipalities prepare annual plans for Local Roads maintenance. Any project for road development requires the preparation of an Environmental Impact Assessment. For Main and Regional roads, such Environmental Impact Assessment is prepared by the MTC, in cooperation with the Ministry of Environment and Spatial Planning. For Local Roads, such Environmental Impact Assessment is prepared by the Municipality in cooperation with the Ministry of Environment and Spatial Planning.

The Law provides that the MTC, for Main and Regional Roads and the Municipality for local roads can “*conclude contracts with the trusty companies which are subject to procurement legislation*”. This provision should be clarified, providing clearly that public roads management, construction and/or maintenance can be entrusted to a private operator, following public procurement or concession rules, depending on the project. We note that this provision is inserted in the chapter related to maintenance which may mean that only maintenance of public roads may be entrusted to a private operator.

4. Foreign investment

We have reviewed the Law n°02/L-33 on foreign investment (the “*Foreign Investment Law*”), dated 21 November 2005 and the Regulation n°2006/28 on the promulgation of Foreign Investment Law adopted by the assembly of Kosovo (UNMIK/REG/2006/28) dated 28 April 2006.

The Foreign Investment Law provides for general principles related to foreign investments protection in Kosovo including fair and equitable treatment; non discrimination, authorities’ compliance with obligations, stability of investment regime, right to due process, free transfer of currency as well as utilisation of international arbitration (ICSID, UNCITRAL, ICC rules).

We note however that all provisions related to expropriation and compensation in case of expropriation has been deleted from the Foreign Investment Law by the Regulation promulgating the Foreign Investment Law mentioned above.

5. Corporate issues

We have reviewed the regulation n°2000/8 on the provisional registration of business in Kosovo (UNMIK/REG/2000/8) dated 29 February 2000 (the “*Company Law*”) and Regulation n°2001/6 on business organizations (UNMIK/REG/2001/6), dated 8 February 2001.
Under the Company Law there are five types of business organizations in Kosovo: personal business enterprise, general partnership, limited partnership, joint stock company and limited liability company. For a joint-stock company, the charter capital shall be at least 50,000 DM. For a limited liability company the charter capital shall be at least 5,000 DM.

The Company Law does not contain any provisions that may negatively impact the implementation of highway PPPs in Kosovo.

6. **Ownership regime**


Under the Immovable Register Law, property rights pertaining to land, buildings and apartments include ownership, mortgages, servitudes and rights of use of socially owned property and state-owned property. Such rights are registered with Municipal Cadastral Offices. Kosovo Cadastral Agency has the authority for overall administration of the registration. The Immovable Register Law does not provide a list of the documents which have to be provided in order to register a property right on immovable. We understand that this is regulated by other laws.

The Consultant understands that Municipal Cadastral Offices and Kosovo Cadastral Agency have actually been established by the Cadastre Law. Under the Cadastre Law, one of the “*basic cadastre units*” is a “*utility of public importance*”, which includes telephone lines, high voltage power lines, water and sewage as well as utilities through which heat, oil, gas or other raw material is conveyed. We understand that this does not include roads.

However, it should be noted that under the Cadastre Law, any person that intends to perform works that could interfere on a registered utility, shall contact the relevant Municipal Cadastral Office “*to make sure that such risks do not exist*”. If the utility could risk being hurt or destroyed, the “*person concerned*” (we understand this being the constructor), should contact the registered owner of the utility. The Cadastre Law does not provide further details on this issue.

7. **Construction and spatial planning.**

We have reviewed the Law n°2004/15 on Construction dated 27 May 2004 (hereinafter, the “*Construction Law*”) and the Regulation n°2004/37 on the promulgation of the Construction Law adopted by the assembly of Kosovo (UNMIK/REG/2004/37). We have also reviewed the Law n°2003/14 on Spatial Planning, dated 3 July 2003, (the “*Spatial Planning Law*”) and
Regulation n°2003/30 on the promulgation of the Spatial Planning Law adopted by the assembly of Kosovo (UNMIK/REG/2003/30).

Under the Spatial Planning Law, a Spatial Plan of Kosovo, prepared by the Ministry of Environment and Spatial Planning, is approved by the Government and the Assembly and published in the Official Gazette. It is a 10-year plan, which takes into account inter alia development strategies of the transport system. Municipalities are responsible for preparing 5-year Municipal Development Plans, Urban Development Plans as well as Urban Regulatory Plans (which define constructions zones). The Spatial Planning law defines the Infrastructure Plan, as a plan presenting installations and existing buildings and planned underground and above-ground installations inter alia in the field of transport. However the Law does not provide further details related thereto (who is responsible for preparing and implementing it, how often, etc.).

Under the Spatial Planning Law, the construction of buildings may be planned outside of construction zones exceptionally inter alia for the needs of transport and other infrastructure. More detailed requirements in this respect shall be provided in Municipal Development Plans.

Urban permits are issued by the municipalities and shall be in accordance with Municipal Development and Urban Regulatory Plans. They are valid for a period of two years following issuance and may be extended for another two years if the part of the spatial plan on which the permit was issued has not changed.

If construction activities require access to public spaces, the investor has to apply for provisional use of public spaces. The investor can also apply for a preliminary permission, enabling him to start preparatory works.

Construction permits are generally issued by Municipalities. However, for certain facilities including public roads that interconnect all Kosovo territory and are also interconnected with main public regional and European roads, the construction permit is issued by the Ministry of Environment and Spatial Planning, but such Ministry can delegate its powers to a municipality. The Construction Law provides that the time period for issuing the construction permit is, for the Municipality 30 days from the submission of a complete file and for the Ministry 60 days.

Under the Construction Law, the construction permit expires if the construction does not start within two years from construction permit issuance. This period may be short for large highway projects.

Before the construction/building can be used, it must have obtained a utilization permit, issued by the same authority as the construction permit.

The Construction Law provides a useful provision in the context of PPP projects whereby the registration of a construction/building in a cadastre is possi-
ble even before a utilization permit has been issued for purposes of registering a security.

Under the Construction Law, any person has the right to build and apply for a construction permit in Kosovo. Regarding the “executors” (constructors?) and supervising engineers, they have to be licensed by the Ministry of Environment and Spatial Planning. The Law does not regulate the status and rights of eventual foreign constructors and supervising engineers in Kosovo.

8. Expropriation

We have reviewed the Draft law on expropriation (the “Draft Expropriation Law”)\(^\text{39}\).

The Draft Expropriation Law defines expropriation as the transfer of ownership from a private person to a public body or to another private person, when such transfer is in the public interest. Under the Draft Expropriation Law, expropriation is permitted if the public interest prevails over the private interest, if it is not discriminatory and is compensated in a fair manner and without delay.

The public interest shall prevail over the private interests if the purpose of the expropriation is *inter alia* to construct or enlarge public infrastructure including public roads.

The Draft Expropriation Law clearly defines the steps to be undertaken in the context of the expropriation (eventual preparatory works, expropriation procedure, compensation, etc.) as well as the bodies responsible for such steps.

The expropriation authority is the Government, unless the expropriation is related to project implementing spatial and urban plans at municipal level in which cases Municipalities are expropriation authorities. Beneficiaries of expropriation may be private persons, central and municipal bodies and public enterprises. The expropriation beneficiary is responsible for the payment of compensation.

Article 14 of the Draft Expropriation Law provides grounds for the revocation of the decision on expropriation. We would recommend inserting language that prolongs the period in which the works have to be started in case of a concession/PPP for a Main Road in order to make such period adapted to with the practical requirements for such projects:

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“(1) The expropriating authority shall revoke the decision on expropriation if:

a) within one year as of the transfer of ownership on the immovable property to the beneficiary, the beneficiary has not initiated works related to the project for which the expropriation was permitted;

b) within two years as of the transfer of ownership on the immovable property to the beneficiary, the beneficiary has not initiated works on
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\(^{39}\) We are not aware of the date of such draft.
the construction or enlargement of a mine or of other facilities for the exploitation of mineral resources for which the expropriation was permitted;

c) within [five] years as of the transfer of ownership on the immovable property to the beneficiary, the beneficiary has not initiated or caused to be initiated works related to a Main Road, or a Concession Contract or other type of public-private partnership contract, related to the Infrastructure Facility for which the expropriation was permitted. For the purposes of this paragraph, “Concession Contract” and “Infrastructure Facility” shall have the meaning attributed by the Law n°02/L-44 On the Procedure for the Award of Concessions, and “Main Road” shall have the meaning attributed by the Law n°2003/11 On the Law On Roads;

d) the beneficiary uses the expropriated immovable property in a manner which is in contradiction with the purpose and reason for expropriation;

e) the beneficiary changes the destination of the immovable property in contradiction with the purpose and reason for expropriation;

(2) In the event of a revocation of the decision on expropriation, all real rights formerly held by the expropriated owner and other persons with respect to the immovable property shall be re-established.

(3) Persons who have received compensation due to expropriation shall return the amount of compensation they have received. Section 41, paragraph 4, shall apply mutatis mutandis with respect to the return of the amount of compensation.

(4) Expropriated persons and any other persons who have lost real rights over the expropriated immovable property due to the expropriation may request from the beneficiary compensation for the damage incurred due to the expropriation.”
### Schedule 1

<table>
<thead>
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<th>Reference</th>
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<tr>
<td>Regulation n°2002/22 on the promulgation of the law adopted by the assembly of Kosovo on the establishment of an immovable property rights register (UNMIK/REG/2002/22)</td>
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<td>Law n°2002/05 on the establishment of an immovable property rights register</td>
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<td>Regulation n°2001/6 on business organizations (UNMIK/REG/2001/6)</td>
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<td>Law n°02/L-33 on foreign investment</td>
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<td>Regulation n°2006/27 on the promulgation of the law on the procedure for the award of concessions adopted by the assembly of Kosovo (UNMIK/REG/2006/27)</td>
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<td>Law n°02/L-44 on the procedure for the award of concessions</td>
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<td>Regulation n°2003/24 on the promulgation of the law adopted by the assembly of Kosovo on roads (UNMIK/REG/2003/24)</td>
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<td>Law n°2003/11 on the law on roads</td>
<td>29 May 2003 (repeals the Law on roads n°43/74)</td>
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<td>Regulation n°2004/37 on the promulgation of the law on construction adopted by the assembly of Kosovo (UNMIK/REG/2004/37)</td>
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<td>Law n°2004/15 on construction</td>
<td>27 May 2004</td>
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<td>Regulation n°2003/30 on the promulgation of the law adopted by the assembly of Kosovo on spatial planning (UNMIK/REG/2003/30)</td>
<td>10 September 2003</td>
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<td>Law n°2003/14 on Spatial Planning</td>
<td>3 July 2003</td>
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<td>Regulation n°2004/4 on the promulgation of the law on cadastre adopted by the assembly of Kosovo (UNMIK/REG/2004/4)</td>
<td>18 February 2004</td>
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<td>Law n° 2003/25 on Cadastre</td>
<td>4 December 2003</td>
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<td>Draft law on expropriation</td>
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</tbody>
</table>
Appendix 7 People met

Ministry of Transport and Communications (MTC) / General Road Directorate (GRD)
Florim Grajcevci, Political Advisor, MTC, e-mail: florim.grajcevci@ks-gov.net
Afrim Kamberi, Director General of Roads, GRD, e-mail: afrinkamberi25@hotmail.com
Ismet Hoxha, Head of Project Division - Road Infrastructure Department, MTC, e-mail: ismet.hoxha@ks-gov.net
Gjynejt Mustafa, Civil Engineer & Database responsible (COWI project contact person) GRD, e-mail: Gjyni@yahoo.com
Avdi Kamerolli, Head of Legal Office, MTC, e-mail: akamerolli@hotmail.com
Tahiri Xhevat, Head of Maintenance Division, GRD
Shaban Latifaj, Technical Director, GDR

Ministry of Environment and Spatial Planning
Dr. Muhamet Aliu, Permanent Secretary, e-mail: muhamet.aliu@ks-gov.net

Ministry of Economic and Finance
Agim Krasniqi, Director of Budget, phone: 00381 (0) 38 29034113
Kenneth Schwartz, Senior Advisor to the Director of Budget, e-mail: Kenneth.schwartz@bearingpoint.com

European Union/UNMIK
Jozef Zuallaert, Advisor Road and Infrastructure and MTC, e-mail: zuallaert@unmikonline.org

Kosovo Economic Development Initiative (USAID/Bearing Point)
Matthew Smith, Chief of Party, e-mail: m.smith@bearingpoint.com
Peter Thurlow, Principle Advisor to the Minister, e-mail: phthurlow@mie-ks.org
Sharon Hester, Director Economic Growth Office, e-mail: shester@usaid.gov

Kosovo Cluster & Business Support (USAID)
Valdet Osmani, Construction Specialist, e-mail: vosmani@usaidkcbs.com

The World Bank, Kosovo
John T. Hodges, Infrastructure Specialist, e-mail: jhodges@worldbank.org
Edon Vrenezi, Operations officer, e-mail: evrenezi@worldbank.org
Shpend Ahmeti, Operations Officer, e-mail: sahmeti@worldbank.org
Hernan Levy, Consultant, e-mail: hlevy@worldbank.org

Municipality of Prishtinë
Avdurrahman Krasniqi, Director, phone: 00381 (0) 38 225 060

Association of Kosovo Municipalities
Sazan Ibrahimie, Executive Director

Public Procurement Agency
Vlora Kuqi, Executive Director, e-mail: vlorakuqi@hotmail.com
Afërdita Selmani, Procurement Manager e-mail: aferdita.avdiu@ks-gov.net

Road Construction Association of Kosovo
Eljesi Surdulli, Executive Director, e-mail: info@rruga.org
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Regulation no. 2004/37 - Law on Construction
Regulation no. 2003/24 - Law on Roads
Regulation no. 2006/27 - Law on Concessions
Regulation no. 2006/28 - Law on Foreign Investment
Regulation no. 2000/8 - Provisional Registration of Businesses in Kosovo
Regulation no. 2002/22 - Law on establishment of an immovable property rights register
Regulation no. 2003/9 - Law on Environmental Protection