1. **Country and Sector Background**

1. **Ukraine’s economy has enjoyed a strong economic recovery, with average annual growth at around 7.5 during the past five years.** Economic recovery has benefited from significant excess capacity in industry, a favorable external environment, and initially, a strongly undervalued currency. Trade expansion was rapid and its geographical orientation is gradually changing towards Europe and other markets outside the former Soviet Union, however Russia remains Ukraine’s largest single trading partner. The rapid economic growth has also facilitated a recent sharp decline in poverty—from 31 percent in 2001 to 8.0 percent in 2005.

2. **Raising productivity and decreasing poverty will require improvements in productive sectors of the Ukrainian economy on several fronts.** The country generates far more transport movements relative to its GDP than any EU country due to its reliance on agriculture and on heavy industries, in particular ferrous metallurgy. This implies that transport costs make up a proportionally large part of the final price of many goods. Consequently, the transport system has substantial potential to improve aggregate productivity and regional competitiveness, which is why the Government is pursuing public intervention to improve transport system efficiency.

3. **As Ukraine moves up the value chain to gain market share in Europe and other developed markets, its economy’s transport intensity will gradually shift toward road transport.** At present, the modal split of cargo transport remains typical of a pre-independence economy—road transport contributes relatively little. Official statistics show that only five
percent of freight turnover (in ton kilometers)\(^1\) is road transport, while rail and pipelines account almost equally for most freight volume. However road transport dominates short-distance transport of goods, accounting for close to 60 percent of the gross freight tonnage, and this trend is growing.

4. **Existing road infrastructure has been relatively adequate during the 10-year transition period\(^2\), but now on certain sections of roads, the quality and capacity of assets hinder efficient movement of goods and people.** The 1998 financial crisis exacerbated the shortage of funds for maintaining and renewing transport infrastructure assets in Ukraine. Some economically strategic sections of the network are not only in poor condition but also functioning at peak capacity due to steadily increasing commercial traffic, and annual passenger traffic that has been growing an average of 11 percent per annum over the last three years with an accelerating trend. Furthermore, substantial portions of the core network still need to be upgraded to European technical and safety standards as is the case for the proposed project.

5. **Inadequate technical and safety standards are not the only reason for the high rates of road accidents in Ukraine—a rate that compares poorly with other countries in the region and in Europe.** The number of traffic crashes in absolute terms has almost doubled over the past six years, and the cost of road crashes is estimated to be between 1.5 and 3.5 percent of GDP\(^3\), most of which is due to steadily increasing vehicle ownership and use. Deaths per 10,000 registered vehicles is 8.0 (2005),\(^4\) similar to many Eastern European countries such as the Russian Federation, but much higher than many EU countries (between 3 and 4 times higher in 2006).

2. **Objectives**

6. **The main project development objective is to reduce road transport costs along the M-3 express motorway, and improve access and safety along Ukraine’s main road network.** Ukraine is an important transit country given its location between Russia and other CIS\(^5\) states, and the EU market. The proposed project will leverage returns on major shared infrastructure investments, such as EU-funded improvements to European priority corridors, because this proposal focuses on rehabilitating crucial domestic and regional corridors that complement the European ones. These domestic and regional corridors include a section between Boryspil and Lubny: a section of the M-3 express motorway Kyiv-Kharkiv-Dovzhansky linking eastern Ukraine industrial areas to the EU main road network.

7. **In Ukraine, fatal crash rates are among the region’s highest—three to four times EU rates.** Estimated total socio-economic cost of road accidents in Ukraine ranges between 1.5 and 3.5 percent of GDP. The Government, well aware of this pervasive issue, has collaborated with the EU to develop a road safety program. The proposed World Bank-supported project aims to contribute to reducing road traffic crashes, injuries, and fatalities to EU levels. In part this will

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\(^2\) Recent surveys show that most of the state road network is still in reasonable condition: the International Roughness Index (IRI) is usually less than about 5.00. See Table 1.

\(^3\) Depending on methodology.

\(^4\) WSP, 2006, Road Financing Report, State Road Services of Ukraine – Ukravtodor.

\(^5\) Commonwealth of Independent States (CIS), created in December 1991, now comprises Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.
involve eliminating some 162 identified “black spots,” which are road sections or locations that have significantly higher-than-average number of road accidents each year.

8. **Proposed key development indicators are as follows:** (a) reduce transport time between Boryspil and Lubny from current 2 hours and 40 minutes to 2 hours and 20 minutes and reduce vehicle operating costs by 12 percent per vehicle trip; (b) eliminate 162 of 300 “black spots” identified by Ukravtodor along the national road network; and (c) reduce by a factor of two the annual number of road accidents between Boryspil and Lubny—from current 248 to 126 at the completion of the project.

9. **The proposed project is fully consistent with the Country Partnership Strategy (CPS) for Ukraine for FY08-11.** The CPS emphasizes sustainable growth and improved competitiveness (Pillar 1) with a focus on infrastructure (energy and transport). These priorities remain central in the second Development Policy Loan approved by the Board in December 2007. Efforts to improve the investment climate in Ukraine are facing serious challenges, in particular upgrading Ukraine’s trade facilitation, transport, and logistics systems to standards required for competing internationally.

10. **The primary objectives are to integrate Ukraine’s transport network with that of the EU, to promote Ukraine's transit potential, and to maximize the use of Ukraine’s existing transport assets.** The authorities intend to support the ambitious proposed investment program with significant public resources, and to pursue private investors by developing a Law on Public Private Partnerships, among other measures. Also, the authorities aim to increase transport safety in both road and air transport, for example European flight safety standards are being introduced. To participate successfully in the global economy, including WTO membership, Ukraine’s large export-oriented trade sector requires improved transport infrastructure. The proposed project will contribute to achieving these higher-level objectives.

11. **Ukraine and Poland will jointly host the 2012 European Football Championships.** Both governments intend to upgrade transport infrastructure serving cities where matches will be played—in Ukraine—Kyiv, Donetsk, Lviv and Dnipropetrovsk. The investment under the proposed project is already amply justified by present traffic along the Kyiv-Dnipropetrovsk/Donetsk corridor. Moreover, the Ukrainian government is also motivated by a desire to successfully host the football championship, which augurs well for adequate commitment of funds and attention to maintaining the schedule and quality of the proposed works.

3. **Rationale for Bank Involvement**

12. **The proposed project, the Bank’s first in the transport sector in Ukraine, resulted from a policy dialogue between the Government of Ukraine and the World Bank, ongoing since 2005.** The project builds on recommendations underpinning 2005 and 2006 analytical work, including a comprehensive Transport Sector Policy Note, prepared by the World Bank in 2006 at the Government’s request and based on a detailed review of the transport sector carried out by Ecorys in 2005 under a grant from the Netherlands (see Annex 1). Key policy note recommendations include the following: (a) establish a sustainable financing strategy for the road sector; (b) reduce the maintenance backlog; (c) improve road safety by eradicating “black spots” and (d) introduce performance-based contracting in road network maintenance.

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6 World Bank, Report No. 40716-UA (December 6, 2007)
7 Odessa and Kharkiv are alternative locations.
13. The proposed project complements ongoing and planned roads projects in Ukraine, but primarily emphasizes improving road safety standards. The Bank’s international experience in improving road safety offers substantial value added through the proposed project, in particular by reducing the high accident rate. The Bank’s project team will draw on its past decade of experience improving road safety in Poland, and other CIS countries such as the Russian Federation\(^8\) (which has similar reasons for high road traffic accident rates). Finally, the project provides a stepping stone for further cooperation in the transport sector.

4. Project Description

14. The proposed project cost is estimated at US$500 million of which the World Bank loan will finance US$400 million. The design has been kept as simple as possible, as it will be the first World Bank-financed transport project in Ukraine. The National Roads Administration, Ukravtodor, has successfully implemented three consecutive EBRD-financed projects during the past five years. However Ukravtodor would need to familiarize itself with World Bank procedures, especially procurement and environmental and social safeguards.

15. Details of the three components are provided below:

16. **Component 1: Road Rehabilitation of a 128 kilometer section (Borispil-Lubny) of the Kyiv-Kharkiv-Dovzhansky highway (M-3) (estimated cost US$300 million financed 100 percent by the World Bank).** This component comprises civil works for the rehabilitation/strengthening of the existing 2x2 lanes M-3 expressway (128 kilometer section), including safety measures for the vehicles (signaling, lighting in critical sections, crash barriers, etc.,) and for local inhabitants (pedestrian crossings, parking, and special facilities). The M3 expressway is strategic for Ukraine’s integration with the EU network and as a potential domestic and international transit corridor. The design features of the rehabilitation works are being evaluated vis-à-vis the expected traffic volumes and composition.

17. **Component 2: Road safety improvement (estimated cost US$198.5 million of which US$100 million financed by the World Bank).** The proposed project will eliminate 162 “black spots” of some 300 identified by Ukravtodor; the project could support the recently established National Road Safety Council. In addition the project will fund the supply and installation of safety improvements such as vertical and horizontal signaling, cats’ eyes, rumble strips, and modern crash barriers on the most critical points of the national road network.

18. **Component 3: Capacity Building (estimated cost US$1.5 million financed 100 percent by Ukravtodor).** Ukravtodor will finance this component, which could include funding for advisory services and equipment to: (a) modernization of the current control system of road condition taking into account international experience. Integration of roads e-passports into the current control system; (b) clarification of road classification in terms of possible reform of the control system of state and local roads; (c) preparation of a possible second road project; and (d) implementation of a weighing station for vehicles to protect roads from early destruction.

5. Financing

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<thead>
<tr>
<th>Source:</th>
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6. Implementation

19. **The Ministry of Finance in Ukraine in conjunction with Ukravtodor has overall responsibility for coordination of funds.** This includes funds from International Financial Institutions (IFIs), the EU, bilateral agencies, and any private sector partners. The road safety and capacity-building component proposed in this project will serve the entire road sector and benefit projects regardless of their funding source, including projects financed by the EU and other IFIs such as EBRD and EIB. The World Bank project team will maintain regular contact with all entities to coordinate and cooperate on lending and technical assistance.

20. **Ukravtodor, as the Project Implementing Entity will have sole responsibility for overall project implementation.** Within Ukravtodor, the Deputy Head has been appointed to be responsible for project implementation. The Head of Ukravtodor financial department has been appointed to coordinate fiduciary aspects of project implementation. Ukravtodor will also be responsible for overall FM management, i.e., authorizing withdrawal applications and budget report. Ukrdiprodor (UGD), the State Road Design Institute (also in charge of EBRD-financed projects) has been designated to manage implementation of all project components.

21. **A Project Implementation Unit (PIU) will be in charge of day-to-day project operation and technical support.** This PIU was established in 2002 as the management unit for the first EBRD-funded project, and in 2007 its original statutes were amended to include responsibilities for managing the proposed World Bank financed project. Additional staff and resources will be made available at the PIU level to implement the project. Generally, PIU staff is regular Ukrdiprodor staff.

22. **A draft Project Operational Manual (POM) to be satisfactory to the Bank is to be submitted to the Bank before negotiations.** The Manual will describe procedures for project implementation, including, inter alia: (a) procedures governing administrative, procurement, accounting, financial management, and monitoring and evaluation arrangements; (b) targets to be achieved under the project; and (c) a sample format for Project Progress Reports.

23. **In general, weak governance and corruption pose a development challenge for Ukraine and increased spending in the road sector has potential to increase opportunities.** However, an internal Bank review on the vulnerability of the Bank portfolio to Ukraine’s fiduciary risks found that project risks can be mitigated to acceptable levels. To mitigate fiduciary risks in Bank operations, the Country Partnership Strategy (CPS) for Ukraine for the Period FY08-11\(^9\) envisions strengthening existing fiduciary standards (such as enforcing the Bank’s procurement rules, requiring competitive bidding) and adequate supervision and attention to capacity building among project counterparts.

7. Sustainability

24. **Based on the Bank’s international experience with the transport sector, including in Central and Eastern Europe, detailed designs and construction implementation will be closely supervised to ensure that physical assets are constructed to high quality standards and completed**

\(^9\) World Bank, Report No. 40716-UA (December 6, 2007)
on schedule. Long-term sustainability, particularly of road assets, will depend on effective and timely maintenance. Support provided under the project will improve data collection on road asset condition and mechanisms to incorporate this data into Ukravtodor’s management systems, which will enhance the knowledge base necessary to improve road maintenance planning decisions. The intention is that this effort will support optimum use of the maintenance resources and increase the sustainability of the road investments.

25. In response to increasing demands to maintain the national road network, budgets in Ukravtodor have increased from UAH 466 million in 2004 to 1.9 billion in 2007. According to Bank’s assessment, the total budget figures appear reasonable (albeit short of covering all necessary maintenance demands), whilst the needs are likely to increase as regards ageing of the network. As of today, Ukravtodor’s budget proposals are based on the periodic assessment of the highways network physical condition done on an annual basis. The corresponding data are included into a database platform for managing the condition of the road paving (PMCP\textsuperscript{10}). The platform then computes the amount and type of repair needed to maintain the road assets in good condition, and its results are used as a basis for budgeting purposes. Currently the level of financing to maintain the highway network does not make it possible to use the possibilities of PMCP in its full extent. With the support of the proposed Project, Ukravtodor would modernize the existing platform for managing the highways network, which would ensure optimal use of the resources for real demands of the network maintenance. In order to ensure proper maintenance of the national road network in the future, it has been agreed with Ukravtodor that a specific covenant related to the annual review of Ukravtodor’s road maintenance budget by the Bank will be included in the project agreement.

8. Lessons Learned from Past Operations in the Country/Sector

26. The recent IEG evaluation\textsuperscript{11} of the Bank’s assistance to Ukraine in other sectors, especially the energy sector, yields some useful lessons. For example, IEG commended the choice of policy dialogue, AAA, and linkage of the energy program to cross-sectoral adjustment lending (DPL program) as the main instruments to support energy sector reform. (No transport project has yet been implemented in Ukraine.) The clear long-term objective and the programmatic design of Bank support would mitigate the risk of policy reversal by agreeing up-front with the Government on the policy lending (DPL program), and sequencing Bank financial support to the transport sector through a series of SILs without back-loading policy conditionality to investment lending.

27. The beneficiary, Ukravtodor, the National Road Administration, has already demonstrated good technical skills, strong project ownership, and commitment to results. The three consecutive EBRD-financed projects have been and are being implemented satisfactorily in an evolving reform environment since the year 2000.

9. Safeguard Policies (including public consultation)

\textsuperscript{10} During the period of 2001-2002 the platform for managing the condition of the highway paving was analyzed by the experts of the University of Birmingham (under the TACIS programme) and was recommended for application in the NIS countries.

\textsuperscript{11} The IEG’s Country Assistance Evaluation (CAE) covers Bank assistance to Ukraine during FY99-06.
28. In accordance with the World Bank’s safeguard policies and procedures, the project has been classified as Category B for environmental assessment purposes. Under Ukrainian legislation the project is not included in the “List of Activity Categories and Installations which are environmentally unsafe or hazardous.” A corridor-specific Environmental Assessment, documenting baseline conditions and environmental risks was prepared and proposed/considered as professional “good practice.” Two EIAs were developed based on Ukrainian legislation covering two regions in Ukraine (Kiev and Poltava Regions) and later summarized in one EIA; an English-language version was delivered and a Ukrainian-language version was disclosed during December 2006-February 2007 in three regions at local administrations and with environmental authorities (the two detailed EIAs had already been disclosed in Ukraine).

29. Most road rehabilitation projects have positive environmental impacts, particularly when the existing alignments are retained. While the roadway passes through or nearby some designated protected areas (including forested land), land areas that would be directly affected by the works are not natural habitats and safeguards are not triggered. No physical cultural resources would be affected, however, “chance finds” provisions will be included in the standard bidding contracts.

30. For the rehabilitation of the project supported road section between Boryspil to Lubny, Ukravtodor with assistance from UGD provided the World Bank generalized Environmental Management Plan (EMP) in English language that were placed in the Infoshop on 19th November, 2007. Ukraine language versions of these EMPS were disclosed on the ‘Ukravtodor’ website and at the project sites on 16th of November, 2007. Prior to disclosure, public consultations were held at 3 locations alone Kyiv-Kharkiv-Dovzhanskyi motorway (M3). The EMPS and documentation for the public consultations are included in the project files.

31. Relevant stakeholders have been consulted during project preparation and the descriptions of who was consulted, when, where, and the method of consultation are fully described in the EMP. Public hearings were held at three locations along the route (in Pyriatyn on 24th of October 2007, followed in Lubny on 25th of October and finalized in Yahyn on 30th of October 2007) where communities are located close to road sections to be rehabilitated under the project to ensure that those most directly concerned by the project can, by voicing their opinions and suggestions, increase the quality and efficiency of the works design.

32. OP 4.12 is triggered because during project implementation Ukravtodor might acquire some small parcels of land for the elimination of some black spots and possibly for the construction of interchanges along the section of the M3 under the project. A Land Acquisition Policy Framework has been prepared and shared with Ukravtodor with a view that it will be used as a guide for any land acquisition process to ensure compliance with OP 4.12. The Resettlement Policy Framework (RFP) has been placed in the Bank’s Info shop on 19 November 2007.

33. The proposed project supports the Government’s road sector policy of broad and evenly distributed benefits and promotion of economic growth and improved road safety. The social impact of the proposed project is important as it will improve the condition and safety of a portion of M3 that is in dire need of rehabilitation, and improve road signs and eliminate “black spots,” a major cause of highway crashes around the country. An Environmental Impact Assessment (EIA) conducted by the counterpart during project preparation concludes that communities view the rehabilitation of the M3 motorway as positive as it improves their standard and quality of life.
As part of project implementation, a beneficiary assessment (BA) with the following objectives will be carried out: (a) to assess project impact not only on highway users—those with access to motorized transit such as vehicle owners and passengers—but also on pedestrians and non-motorized users, such as residents and businesses; (b) to consult and inform these groups on project objectives and elicit their views on how best to implement the project to minimize negative impacts on motorway users, inhabitants, and those working along the motorway corridor; and (c) to develop social indicators for follow-up during the life of the project.

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10. List of Factual Technical Documents

1. Ecorys review of the transport sector (November 2005)
2. Identification mission – Aide-memoire (September 2006)
3. Transport Sector Strategy Note (November 2006)
4. Documentation from Ukravtodor
5. Identification Stage Safeguards Meeting Minutes (November 2006)
6. Project Concept Note Review Meeting Minutes (December 2006)
7. Preparation mission – Aide-memoire (December 2006)
8. ISDS prepared/ updated (August 2007)
9. Pre-Appraisal mission – Aide-memoire (September 2007)
10. Minutes of QER (October 2007)
11. EBRD Sector Reform Documents (October 2007)
12. PID (Appraisal Stage) (November 2007)
13. ISDS (Appraisal Stage) (November 2007)
15. EMP (November 2007)
17. Safeguards Clearances for EMP and RPF (November 2007)
18. Audit Requirements for PHRD grant (November 2007)
19. EMP/ RFP – Processed by Infoshop (November 2007)

11. Contact point

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas
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