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Report No: RES8823

RESTRUCTURING PAPER  
ON A  
PROPOSED PROJECT RESTRUCTURING  
OF THE  
ROAD UPGRADING AND MODERNIZATION PROJECT  
P118375  
LOAN 7971-BY  
BOARD APPROVAL DATE: November 11, 2010  
TO THE  
REPUBLIC OF BELARUS

February 4, 2013

ECSTR  
EUROPE AND CENTRAL ASIA REGION

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**BELARUS**  
**ROAD UPGRADING AND MODERNIZATION PROJECT**

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## DATA SHEET

*Belarus*

*Road Upgrading and Modernization Project (P118375)*

*EUROPE AND CENTRAL ASIA*

*ECSTR*

<b>Basic Information</b>									
Project ID:	P118375	Lending Instrument:	Specific Investment Loan						
Regional Vice President:	Philippe H. Le Houerou	Original EA Category:	Partial Assessment (B)						
Country Director:	Qimiao Fan	Current EA Category:	Partial Assessment (B)						
Sector Director:	Laszlo Lovei	Original Approval Date:	11-Nov-2010						
Sector Manager:	Juan Gaviria	Current Closing Date:	30-Nov-2014						
Team Leader:	Andreas Schliessler	Report No:	RES8823						
Borrower:	Republic of Belarus								
Responsible Agency:	Minskavtodor-Center (MA-C)								
<b>Restructuring Type</b>									
Form Type:	Full Restructuring Paper	Approval Authority: Board Approval							
Restructuring Level:	Level 1								
<b>Financing Information ( as of February 1, 2013 )</b>									
Key Dates									
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date		
P118375	IBRD-79710	Effective	11-Nov-2010	19-Nov-2010	05-Jul-2011	30-Nov-2014	30-Nov-2014		
Disbursements (in Millions)									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Un disbursed	% Disbursed
P118375	IBRD-79710	Effective	USD	150.00	150.00	0.00	65.08	84.92	43.38
<b>Policy Waivers</b>									

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [ X ]
Does the project require any policy waiver(s)?	Yes [ ]	No [ X ]

### **A. Summary of Proposed Changes**

The original design of the Belarus Road Upgrading and Modernization Project included the design, procurement, supply and installation of the first stage of a countrywide state-of-the-art electronic road tolling system, under its "modernization" Component 2. Under the original design of the project, the first stage of the tolling system would have been implemented with World Bank funding, with the intention to gradually expand the system to about 2,600 km of major highways in Belarus over several subsequent years with the Government's own funding. The full implementation of the tolling system would have taken about 5 to 7 years. However, while the functional design of the system was carried out (during the first year of implementation of the World Bank funded project) the Government decided to accelerate the full implementation of the tolling system. In early 2012, it signed a PPP concession contract with a leading European firm for the supply and installation of the system on about 2,600 km of major highways, and its operation during 20 years. The contract is under implementation and the first phase of the new tolling system should be operational in mid-2013. It is important to note that the contract is not in any way related to the World Bank funded project.

The Bank and the Government have agreed to nevertheless maintain their collaboration on the subject of road network modernization. The redefined project Component 2 will address another aspect of modernization of road network management. The proposed change is to replace the support for the tolling system by support for the design, supply, installation and commissioning of a countrywide state-of-the-art axle load monitoring and control system. The sole purpose of the project restructuring of the project is to redefine the content of Component 2 of the project and reflect this in the Project Development Objective and the Results Framework. There are no other changes to the project. The formal risk rating of the project remains "moderate".

Change in Implementing Agency	Yes [ ]	No [ X ]
Change in Project's Development Objectives	Yes [ X ]	No [ ]
Change in Results Framework	Yes [ X ]	No [ ]
Change in Safeguard Policies Triggered	Yes [ ]	No [ X ]
Change of EA category	Yes [ ]	No [ X ]
Other Changes to Safeguards	Yes [ ]	No [ X ]
Change in Legal Covenants	Yes [ ]	No [ X ]
Change in Loan Closing Date(s)	Yes [ ]	No [ X ]
Cancellations Proposed	Yes [ ]	No [ X ]
Change to Financing Plan	Yes [ ]	No [ X ]
Change in Disbursement Arrangements	Yes [ ]	No [ X ]
Reallocation between Disbursement Categories	Yes [ ]	No [ X ]

Change in Disbursement Estimates	Yes [ ] No [ X ]
Change to Components and Cost	Yes [ X ] No [ ]
Change in Institutional Arrangements	Yes [ ] No [ X ]
Change in Financial Management	Yes [ ] No [ X ]
Change in Procurement	Yes [ X ] No [ ]
Change in Implementation Schedule	Yes [ ] No [ X ]
Other Change(s)	Yes [ ] No [ X ]
Appraisal Summary Change in Economic and Financial Analysis	Yes [ ] No [ X ]
Appraisal Summary Change in Technical Analysis	Yes [ X ] No [ ]
Appraisal Summary Change in Social Analysis	Yes [ ] No [ X ]
Appraisal Summary Change in Environmental Analysis	Yes [ ] No [ X ]
Appraisal Summary Change in Risk Analysis	Yes [ ] No [ X ]

## **B. Project Status**

The key activities under project Components 1 (Road upgrading) and 3 (Technical Assistance and Capacity Building) continue to advance well. Physical road works under Component 1 started very well in the winter of 2011/2012 but then slowed down during a few months in 2012, when the road contractor started to accumulate delays in the late spring and during the summer. However, works have accelerated during the fall and the accumulated delays are now rather small (about 10 percent of total contractual construction time). It is expected that road upgrading works will be fully completed as planned, by the end of 2013, one year before the project closing date. Under Component 3, technical support and advisory services, and various types of training are being provided to the project implementing agency Minskavtodor-Center (MA-C), the State Road Construction Supervision agency BELDORCENTER and other institutions. These are mainly to increase local capacity for the management of the FIDIC-type civil works contracts, for environmental and social management of infrastructure investment projects, and for economic assessment of road sector investments. (FIDIC is the International Federation of Engineering Consulting Firms.) The Client is satisfied with the various capacity-building activities carried out under this Component. A total of US\$ 65.08 million (43.38 percent of loan amount) has been disbursed to date, most of which are payments to the road contractor TODINI.

The current performance of the project implementing entity Minskavtodor-Center (MA-C) is satisfactory. Financial audit reports were received and are satisfactory. There are no outstanding audit reports.

## **C. Proposed Changes**

### **Development Objectives/Results**

#### **Project Development Objectives**

Original PDO

The development objective of the project is to reduce transport costs for road users on the upgraded

sections of the M5 road, and introduce an efficient cost recovery mechanism in Belarus' road sector through electronic tolling. The project objective would be achieved mostly by improving the condition, quality and capacity of a road section, and by implementing the initial stage of an electronic road tolling system.

**Change in Project's Development Objectives**

Explanation

The electronic road tolling system included in the original project design is being replaced by an axle load control system.

Proposed New PDO

To reduce transport costs for road users on the upgraded sections of the M5 road and introduce a modern axle load control system in Belarus as a tool to increase road sector sustainability.

**Change in Results Framework**

Explanation:

The electronic road tolling system included in the original project design is being replaced by an axle load control system. Therefore, the original indicator "Modern electronic road toll system is installed and operational on the section from km 22 to km 131 of the M5 road" is being replaced by another indicator: "Axle load monitoring and control system has been supplied and installed on non-tolled main roads in Belarus".

**Compliance**

**Change in Safeguard Policies Triggered**

**Change of EA category**

**Financing**

**Components**

**Change to Components and Cost**

Explanation:

The electronic road tolling system included in the original project design is being replaced by an axle load control system.

<b>Current Component Name</b>	<b>Proposed Component Name</b>	<b>Current Cost (US\$M)</b>	<b>Proposed Cost (US\$M)</b>	<b>Action</b>
Road Upgrading		131.00		No Change
Modernization of Road Tolling System	Axle Load Monitoring and Control System	18.00		Revised
Technical Assistance and Capacity Building		1.00		No Change

	<b>Total:</b>	0.00	150.00	
<b>Other Change(s)</b>				
<b>Change in Procurement</b>				
Explanation:				
<p>The procurement plan has been revised to reflect the change in Component 2. The "Supply and Installation of a road tolling system" is to be replaced by "Supply and Installation of Axle Load Monitoring and Control System". Consulting services under this component have been changed accordingly.</p>				
<b>Change(s) in Appraisal Summary</b>				
<b>Appraisal Summary Change in Technical Analysis</b>				
Explanation:				
<p>In Belarus, new or reconstructed roads are being designed to carry axle loads of 11.5 tons in line with European standards, but older roads were designed to carry only 10.0 tons per axle. The different road types have thus different load limits, but both road types need to be protected from overloading. The revised Component 2 of the project will consist of the design, procurement and implementation of weigh-in-motion devices embedded in the pavement of major roads that carry large numbers of trucks. The system will make it possible to screen all trucks without stopping them, and to identify overloaded trucks. These overloaded trucks could then be stopped and their axle loads measured with precision, either at existing fixed weighing stations or by mobile units deployed at strategic locations throughout Belarus, for the purpose of enforcing legislation and issuing fines. This system would entail large efficiency gains, since (i) most heavy vehicles traveling in Belarus could be screened without causing any delay or interference with their trip; (ii) overloaded vehicles, and only those, could be identified, stopped and fined. The system would bring Belarus to the forefront of efficient axle load control and thus protect its road assets from premature deterioration.</p> <p>The Bank team reviewed and confirmed the technical and operational feasibility of the planned axle load monitoring and control system. The detailed functional and technical design of the system and the determination of the locations of the axle load control stations will be carried out by an international consulting firm. The stations will be along the non-tolled portion of the main road network, since the axle load control along the toll roads will be integrated in the tolling system (outside the scope of the project). The technology needed for the system is available from several suppliers. The proposed technological option is to implement weigh-in-motion devices embedded in the pavement of all major roads that carry large numbers of trucks. These devices will be combined with vehicle recognition technology and with ICT technology.</p>				



**ANNEX 1**  
**Results Framework and Monitoring**  
**Belarus - Road Upgrading and Modernization Project**

Project Name:	Road Upgrading and Modernization Project (P118375)	Project Stage:	Restructuring	Status:	Retrofitted ORAF
Team Lead:	Andreas Schliessler	Requesting Unit:	ECCU2	Created by:	Andreas Schliessler on 26-Nov-2012
Product Line:	IBRD/IDA	Responsible Unit:	ECSTR	Modified by:	Andreas Schliessler on 04-Feb-2013
Country:	Belarus	Approval FY: 2011			
Region:	EUROPE AND CENTRAL ASIA	Lending Instrument:	Specific Investment Loan		

**Project Development Objectives**

Original Project Development Objective:

The development objective of the project is to reduce transport costs for road users on the upgraded sections of the M5 road, and introduce an efficient cost recovery mechanism in Belarus' road sector through electronic tolling. The project objective would be achieved mostly by improving the condition, quality and capacity of a road section, and by implementing the initial stage of an electronic road tolling system.

Proposed Project Development Objective (from Restructuring Paper):

To reduce transport costs for road users on the upgraded sections of the M5 road and introduce a modern axle load control system in Belarus as a tool to increase road sector sustainability.

**Results**

Core sector indicators are considered: Yes

Results reporting level: Project Level

Project Development Objective Indicators							
Status	Indicator Name	Core	Unit of Measure		Baseline	Actual(Current)	End Target
No Change	Vehicle Operating Cost	<input type="checkbox"/>	Percentage	Value	100.00	100.00	94.00
			Sub Type	Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments	Baseline Vehicle Operating Cost Data Set is in HDM4 files. The overall VOC data "without project" are set as the baseline value of 100%.	Works underway.	By the end of Project, the VOC (at baseline traffic levels) should be at least six percent lower than before the project.
Revised	Axle Load Monitoring and Control System introduced on non-tolled main roads in Belarus.	<input type="checkbox"/>	Text	Value	No		Yes
			Sub Type	Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments	System not in place.		By the end of Project, the system should be in place and operational.
Intermediate Results Indicators							
Status	Indicator Name	Core	Unit of Measure		Baseline	Actual(Current)	End Target
No Change	Roads constructed, non-rural	<input checked="" type="checkbox"/>	Kilometers	Value	0.00	0.00	52.70
			Sub Type	Date	12-Feb-2010	08-Jun-2012	30-Nov-2014

				Comments		Works underway, but no completed sections yet.	End of Project
No Change	Road Roughness	<input type="checkbox"/>	Number Sub Type	Value	3.20		2.00
				Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments	The baseline value represents the roughness (IRI) before the works.	Present value not available. Roughness will only be measured after construction is completed.	The target roughness value of IRI 2.0 is to be achieved after the completion of the works.
No Change	Traffic Fatalities	<input type="checkbox"/>	Number Sub Type	Value	12.00		5.00
				Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments	The baseline fatality figure represents the average annual fatalities on the road section to be improved under the project.	Recent statistics on annual fatalities not available.	After the opening of the completed road, annual traffic fatalities should drop to 5 or less.
Revised	Axle Load Monitoring and Control System operational	<input type="checkbox"/>	Text	Value	No		Yes
			Sub Type	Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments		Not expected	

						until 2014.	
No Change	Capacity to manage FIDIC type contracts	<input type="checkbox"/>	Text Sub Type	Value	No		Yes
				Date	10-Feb-2010	08-Jun-2012	30-Nov-2014
				Comments		Training underway.	