

Ukraine

Second Roads and Safety Improvement Project (RSIP2, P127156)

**Summary of the
Environmental Impact Assessment
and
Environmental Management Framework
March 20, 2012**

Project Description

The objectives of the Project are an *improved condition and quality of sections of the M-03 road Kyiv-Kharkiv-Dovzhanskyi and increased traffic safety on roads* in Ukraine. This is to be achieved through (i) rehabilitating and upgrading various sections totalling about 108 km of the (M-03¹) road in the Poltava Oblast; and (ii) implementing various types of physical road safety measures on some dangerous road sections on Ukraine's network of main roads, using a "corridor approach". The latter will be identified based on a safety inspection of about 1,500 km of candidate roads which is now being executed under the ongoing first RSIP.

There are 83 communities in the project-affected area, the majority of which are situated outside the right-of-way of the M-03 road. The population of villages and towns in the project area is about 230 thousand people or 793 inhabitants per kilometer of road; this is in addition to about 300,000 inhabitants of the city of Poltava at the end point of the planned works on the M-03 road.

Environmental Impacts and Safeguards Policies

The project was classified as environmental category "A". This classification is justified due to new ("greenfield") construction of three bypasses under the project. Environmental impacts of road rehabilitation/repairs under RSIP2 will mainly be caused by road widening and road infrastructure safety improvements, and will be located to a large extent within the existing right-of-way of the road. These impacts are expected to be similar to those under the ongoing Road Safety Improvement Project (RSIP, P100580) and broadly include: (i) air pollution and noise from trucks, other construction machinery and asphalt plants, (ii) soil disturbance, (iii) tree-cutting, and (iv) impacts on surface water networks (siltation,

¹ The M-03 motorway is part of the backbone of the country's road infrastructure and a vital component of the economy, deriving significant revenues from transit fees. The first 100 km of the proposed section to be rehabilitated typically carry more than 20,000 vehicles per day, making it one of the highest trafficked roads in the region. Especially the corridor carries a large part of the heavy-loaded traffic transiting between Russia and the EU.

accidental pollution). These environmental impacts can be mitigated by good construction practices.

All bypasses will go mainly through farmland, only small portions of the bypasses will go through a forested area which contains low-value, planted tree species. A designated Compensating Tree Planting Plan will be developed by the Contractors as part of site-specific Environmental Management Plans (EMPs) in coordination with Poltava Oblast Forestry Department. No protected areas will be affected by the project. No physical cultural resources would be affected, however, “chance finds” provisions will be included in the standard bidding contracts. After completion, the project will have positive indirect impacts on human health and safety through reduced accidents and reduced air pollution that will result from more even travel speeds on rehabilitated road sections.

Environmental Assessment OP/BP 4.01 (triggered): The main envisaged potential negative impacts during construction are the operation of borrow areas, generation of waste (construction materials, spent consumables, household waste and wastewater from camps), topsoil destruction and erosion. There is also a potential impact on groundwater and surface water from excessive turbidity and siltation, washing equipment in rivers (e.g. cement trucks) and accidental spills involving fuels and lubricants. During operation of the road, storm drainage management, soils, ground and surface water contamination by heavy metals, soot and organic compounds (e.g. PAH), noise, dust, and air pollution will be the main issues.

For the purposes of the ongoing first RSIP a corridor-specific Environmental Impact Assessment/OVOS (EIA/OVOS 2007), documenting baseline conditions and environmental risks for the whole road Kyiv-Poltava, was prepared in 2007. Based on this, a generic Environmental Management Plan (EMP 2007) was prepared and its disclosure and public consultations organized under the first RSIP. Given that the EMP 2007 did not cover the road bypasses now included in the RSIP2 (which were not foreseen in 2007), the State Roads Administration (Ukravtodor) initiated in 2011 an additional EIA/OVOS to cover those bypasses². Findings of this EIA/OVOS are based on publicly available data, surveys and field studies (two field visits) undertaken by EIA/OVOS expert group during 2011 (EIA/OVOS 2011).

Similarly, an Addendum to the original EMP Framework (2007) was prepared in 2011 to cover the bypass road sections; it is based on the EIA/OVOS 2011. In order to provide detailed guidance for Contractors and general public, additional information on planted forest areas, biodiversity and special engineering solutions to minimize negative environmental impacts was provided by Ukravtodor, Ukgiproddor (the State Road Design Institute of Ukraine) and Ukrdorinvest (the Project Implementation Unit, or PIU).

Natural Habitats OP 4.04 (not triggered, but addressed in the Addendum to EMP): The area’s primary ecological functions have long been significantly modified by human activities during the last centuries. Large-scale farming has dominated land use for several decades. The landscape was also significantly modified by the development of infrastructure associated with large-scale farming, populated villages and towns along the road (private housing, shops, public buildings and various local infrastructure facilities). In addition, the existing main road between Kyiv and Kharkiv was constructed more than 50 years ago and has changed the landscape and local ecosystems in the broader road corridor. Given that the ecosystems’ biological communities have been historically affected by the

² The bypasses are around Pokrovska Bagachka (km 220+748 – km 228+000), Krasnogorivka (km 275+ 608 – km 276+726), Poltava (km 333+800 – km 344+817), Kopyly (km 344+817 – km 347+200), and Kovtuny (straightening, km 229+210 – 229+812).

above economic and social activities, and taking into account that the road upgrading works will not result in significant conversion or degradation of natural habitats, OP 4.04 (Natural Habitats) will not be triggered.

Forests OP 4.36 (not triggered, but addressed in the Addendum to EMP): The project area was significantly modified after World War II. Forested areas do not represent natural forests or related natural habitats. The predominant land use in the project area is agricultural and not dependent on forest cover. The project will affect only small segments of forested areas as a result of construction of bypasses. All forested areas affected by the project are planted with low-value tree species. Based on the above, OP 4.36 (Forests) is not triggered.

Physical Cultural Resources OP/BP 4.11 (not triggered, but treated in the Addendum to EMP): No physical cultural resources would be affected, however, “chance finds” provisions will be included in standard contracts.

Road Location and Discussion of Alternatives

The realities of socio-economic life of the project region (housing, agribusiness and infrastructure development), environmental considerations and increasing cost of road construction in Ukraine influenced the choice of the location of bypasses. Road location suggested by the initial feasibility study for construction of the M-03 motorway prepared in 2005-2006 was revised in 2011. Initially proposed alternatives either did not envisage bypasses (e.g. Poltava) or suggested different location of bypasses (e.g. Pokrovska Bagachka). This becomes evident from comparison of maps for different road sections contained in EIA/OVOS 2007 and EIA/OVOS 2011. The initially proposed location of the road would not be possible since it would have resulted in large-scale resettlement. Also, initially proposed location of bypasses was considered to be unacceptable from environmental perspective: its implementation would result in more serious impacts (e.g. scale and volumes of earth works) compared with the latest proposed location.

Impact Mitigation and Environmental Management

The key mitigation measures for the identified impacts will include (i) use of equipment and machinery complying with modern emission standards, proper siting of asphalt plants, regulation of work hours; (ii) minimization of project footprint, conservation and restoration of topsoil, grading, greening and re-planting after completion of construction works, (iii) compensatory planting of trees, corresponding to the number cut and augmented with appropriate factors to include potential future losses; and (iv) use of siltation barriers and settlement ponds, care and good housekeeping with transport, storage and handling of hazardous substances and fuels.

Wastewater from construction camps will be treated on site in settlement and aeration basins, where biological waste will be processed, before discharge into surface streams or rivers. Septic sludge from toilets will either be composted on site or trucked to existing water treatment plants along the alignment. Groundwater is not expected to be impacted by the project, as no deep excavations or major cuts are expected. Water for the construction activities as well as the camps will be extracted in relatively small quantities from existing wells or the public supply system. Generally water availability is unconstrained in the project area.

Borrow pits will be operated by the Contractors only at locations that have been pre-identified previous to project implementation and for which both operational and

environmental permits have been obtained. No borrow pit will be operated without a site-specific EMP that will contain a plan for its closure, remediation and recultivation that will be approved by the local environmental authorities as well as the supervising engineer (who will ensure that international good practice is followed).

To ensure adequate quality and provide guidance to the Borrower, the World Bank will undertake a prior-review of and provide “No-Objection” to the first site-specific EMP prepared for new road sections, before physical works start.

Public consultations and disclosure of environmental documentation

Following the requirements for Category A projects, public consultations on the terms of reference for environmental assessment (TOR for EA/OVOS) were organized in five locations along the project road (Lubny, Khorol, Bilkotserkivka, Poltava, Reshetylivka) in October 2011. The recommendations received during public consultations are being taken into consideration during design preparation.

Public consultations on the EIA report were organized on November 14, 2011 with participation of representatives of all rayons of the area of prospective construction. The EIA report, the minutes of public consultations, and the Addendum to EMP have been made available at Ukravtodor website since October 2011. Public consultations on the Addendum to EMP were organized by the client on December 23, 2011. Based on recommendations from these public consultations, the Addendum was updated and re-disclosed.

Public consultation on site-specific EMPs and their approval by the PIU will be a prerequisite for beginning of works on respective new sections of the road. Site-specific EMPs will be prepared by contractors as part of design working documentation. These site-specific EMPs will be disclosed in project locations and public consultations will be organized by Contractors prior to commencement of works on these road sections.

Conclusions

The project will have moderate environmental impacts during construction and operation periods. With appropriate mitigation, particularly during the construction phase of the project, none of the impacts referred to in this report will be significant.

The improvement of the M-03 road Kyiv-Poltava-Kharkiv will bring numerous social and economic benefits to the communities within the area. A fast, safe and all-weather road will allow the efficient and rapid movement of goods through this road corridor between Ukraine, Russia and Europe and beyond in Caucuses and Central Asia. Agricultural produce from the area, which is a significant part of the local economy in this important agricultural area of the country, can be transported rapidly and safer to a wider market, not just Ukraine. On a regional basis the larger communities along the alignment, specifically, Poltava, Kharkiv, Lugansk and Donetsk regions will benefit from faster travel times to other cities/regions in the center and north west of Ukraine.