



**Bosnia and Herzegovina**  
**Route Donja Gračanica - Klopče and**  
**Svilaj - Odzak (Part of Corridor Vc)**  
**ENVIRONMENTAL AND SOCIAL**  
**ASSESSMENT**

**Environmental and Social**  
**Action Plan**

August 2016



Bosnia and Herzegovina  
Route Donja Gračanica - Klopče and Svilaj - Odzak  
(Part of Corridor Vc)  
ENVIRONMENTAL AND SOCIAL ASSESSMENT

**Environmental and Social Action Plan**

August 2016

**Project:** Bosnia and Herzegovina – Route Donja Gračanica - Klopče and Svilaj - Odzak (Part of Corridor Vc) – Environmental and Social Assessment  
**Report:** Environmental and Social Action Plan  
**Prepared by:** ENOVA d.o.o. Sarajevo (Consultant)  
**Financed by:** European Bank for Reconstruction and Development

# 1. Environmental and Social Action Plan

The table below constitutes the ESAP. It identifies the required actions during pre-construction, construction and operation of the project. Implementation of the actions is the responsibility of PC Motorways. When contractors perform work under contract, PC Motorways will be responsible for those contractors' compliance with the requirements of the ESAP.

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
<b>PR 1</b>	<b>Assessment and Management of Environmental and Social Impacts and Issues</b>					
1.1	<p>Obtain and comply with all necessary environmental, water and health and safety permits. Permits to apply for include:</p> <ul style="list-style-type: none"> <li>▪ Environmental Permit for the Donja Gračanica-Klopče - application submitted (but still not issued)</li> <li>▪ Water Act for all highway sections - the application process normally follows the completion of construction</li> <li>▪ Operation Permit for all highway sections – the application process normally follows the completion of construction</li> </ul>	Compliance with national and EBRD requirements	Local regulatory requirements, PR 1	<p>Responsibility: PC Motorways and Contractor; PC Motorways has to ensure that Contractor has all necessary construction related approvals.</p> <p>Resources: In house resources, Contractor resources</p>	<p>Pre-construction</p> <p>During construction</p> <p>During operation</p>	<p>Permits and Approvals from competent authorities</p> <p>Report in Annual Environmental and Social Report (AESR) to EBRD</p>
1.2	<p>Develop and implement Construction Site Organization Plan (CSOP) which should include mitigation measures for specific issues such as: construction waste, air emissions, access, constrains, flora and fauna, groundwater and surface water, influx of workers, human resources policies, working relationships, child and forced labour, non-discrimination and equal opportunity, workers' organisations, wages, benefits and conditions of work, grievance management, worker accommodation (as applicable), security personnel requirements (as applicable),</p>	All environmental and social issues properly addressed	Local regulatory requirements, PR 1	<p>Responsibility: PC Motorways for supervision of implementation of mitigation measures. Plans will be developed by Contractors.</p> <p>Resources: In house resources, Contractor may hire consultants</p>	<p>Before construction commences, Contractor has to develop Plans which have to be approved by PC Motorways.</p> <p>Contractor to implement all Plans during construction.</p>	<p>Management plan documented</p> <p>Report on updates in AESR to EBRD</p>

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	<p>information disclosure, etc.</p> <p>If CSOP has already been developed, check whether CSOP encompass all relevant aspects of environmental protection. If not, update the CSOP.</p> <p>Other plans, required by this ESAP or legally required, should also be incorporated into the CSOP, e.g.: Construction Environmental and Social Management Plan (CESMP), Fire and Explosion Management Plan, Occupational Health and Safety Management Plan.</p> <p>Traffic Management Plan is to be reviewed by a road safety auditor before implementation, especially where transport is moving through or near settlements or areas with vulnerable road users. Include timely maintenance and rehabilitation of local roads used for highway construction impacted by construction vehicles.</p> <p>Emergency Preparedness and Response Plans will identify and address all major hazards for workers and the local community during the motorway construction and operation.</p>					
1.3	<p>Develop and implement Operational Environmental and Social Management Plan (OESMP) for the operation and maintenance of planned motorway, which should include (but not be limited to): Waste Management Plan, Emergency Preparedness and Response Plan, Traffic Management Plan and Health and Safety</p>	<p>All environmental and social issues properly addressed</p>	<p>Local regulatory requirements, PR 1</p>	<p>Responsibility: PC Motorways.</p> <p>Resources: In house resources, external consultant support</p>	<p>Prior to operation (development of OESMP) and during operation (implementation of OESMP)</p>	<p>Management plan documented</p> <p>Report on updates in AESR to EBRD</p>

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	<p>Management Plan.</p> <p>Emergency Preparedness and Response Plans will identify and address all major hazards for workers and the local community during the motorway construction and operation.</p>					
1.4	<p>PC Motorways to identify requirements for environmental and social monitoring during construction and operation and include in the relevant E&amp;S management procedures (internal procedures concerning environmental and social management)</p> <p><b>Before construction</b> complete the baseline measurements and surveys for key environmental topics (e.g. air, noise, water, biodiversity, road conditions, access arrangements, road conditions, access arrangements, etc.).</p> <p><b>During construction</b>, the contractor will develop a monitoring plan for their specific sub-section(s) and PC Motorways will approve this plan. Key issues to be monitored include (but not limited to): air emissions, construction noise levels, water quality, habitat clearance, erosion, grievances, haulage routes, etc.</p> <p><b>During operation</b>, key issues to be monitored include (but not limited to): noise levels (upon complaints), effluent quality, soil contamination, wildlife passes, animal carcass, etc.</p> <p>Monitor stakeholder engagement and grievance management throughout all</p>	All environmental and social effects appropriately monitored	Local regulatory requirements, PR 1 PR 10	<p>Responsibility: PC Motorways to control, monitor and ensure implementation. Contractor is responsible to organise monitoring (a third party consultant may be hired).</p> <p>Resources: Internal Contractor resources, external resources (consultants, laboratories, etc.).</p>	<p><b>Prior to construction:</b> baseline monitoring and monitoring plans prepared.</p> <p><b>During construction:</b> Monitoring plan implemented</p> <p><b>During operation:</b> Monitoring plan implemented</p>	<p>Monitoring plans documented and updated</p> <p>Monitoring results published</p> <p>Report on updates in AESR to EBRD</p>

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	phases of the project. PC Motorways has to make publicly available the key monitoring results of the project.					
<b>PR 2</b>	<b>Labour &amp; Working Conditions</b>					
2.1	Assess accommodation needs for non-local workers and any required worker camps to be developed in-line with international good practice. Including: 'Workers' accommodation processes and standards, EBRD/IFC Guidance Note, 2009.	Managing impacts associated with influx of workers Ensuring adequate working conditions	PR 2 and PR 4	Responsibility: Contractor Resources: Costs for worker accommodation	Pre-construction phase.	Limited number of grievances from community members, employees.
2.2	Ensure that the conditions of contract with Contractor meet EBRD PR 2 in relation to labour standards. The Contractor will ensure that sub-contractors/suppliers apply the same standards.  PC Motorways will monitor contractor E&S performance including implementation of PR 2 standards by carrying out regular site visits.	Ensuring that the Project is implemented in line with EBRD's PRs	PR 1 PR 2	Responsibility: PC Motorways. Resources: In house resources	Pre-construction During construction	Report on performance of contractors in AESR to EBRD.
<b>PR 3</b>	<b>Resource Efficiency and Pollution Prevention and Control</b>					
3.1	Implement existing Solid Waste Management Plan (given as Annex to national EIA Studies). Require from Contractors to develop and implement comprehensive Construction and Demolition Waste Management Plans for both sections.	Soil and water pollution prevention, reduction of GHG emission	National environmental and solid waste management laws and PR3	Responsibility: Construction and Demolition Waste Management Plans will be developed by Contractor. PC Motorways will carry out supervision of implementation. Resources: In house or Consultant support	Before construction commences, Contractor has to develop Plans which have to be approved by PC Motorways. Contractor to implement all Plans during construction.	Construction and Demolition Waste Management Plans documented  Report on updates in AESR to EBRD
3.2	Construct drainage systems in line with	Wastewater	National	Responsibility: Contractor	During construction	Drainage system in

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	final design. Any breaches of chloride discharge limits are to be noted and investigated.	pollution control	environmental and water laws and PR3	Resources: Costs for worker accommodation		place and operational, discharge wastewater quality in line with national wastewater discharge limits.
3.3	Undertake an Initial Screening Assessment (following EBRD GHG Guidance) to determine if a GHG Assessment is required as it is not mandatory for all road schemes.	Promotion of reduction of GHG emission.	PR 3	Responsibility: PC Motorways Resources: In house or Consultant support	Pre-construction phase.	Initial Screening Assessment Report sent to EBRD
<b>PR 4</b>	<b>Health and Safety</b>					
4.1	Develop and implement an occupational health and safety management system in accordance with OHSAS 18001 standard in 2017	Improvement of HS management through a formalised system	PR 4	Responsibility: PC Motorways Resources: In house and external consultant support	Preferably prior to construction	Implemented HSMS, certified to OHSAS 18001
4.2	PC Motorways to complete a Road Safety Audit (RSA) in accordance with the EU Directive on Road Infrastructure Management.  Following the RSA there should be mandatory inclusion of economically viable safety improvements into the design. Road Safety Audit will be conducted by a certified auditor. Where the road safety auditor recommendations are not implemented, the reason why each recommendation has been declined needs to be confirmed to the Bank.  A road safety inspection shall be carried out on road once operational, and if appropriate action plans developed for low cost remedial road safety measures.	Health and safety risks for consumers addressed in the design and operational phase  Reduction of accident risks and improved road safety.	Local regulatory requirements, PR 4, EU Directive on Road Infrastructure Safety Management (2008/96/EC)	Responsibility: PC Motorways Resources: In house resources, external resources as appropriate (consultants, designers, etc.).	Prior to commissioning of motorway sections	Documented Road Safety Audit Report in AESR to EBRD

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
4.3	<p>PC Motorways to ensure that the Contractor establishes a Health and Safety Management Plan with special focus on (but not limited to): unexploded ordnances, movement of vehicles and traffic management, working at heights, working in confined spaces, working with hazardous material (e.g. explosives), management of electrical hazards, prevention of unintended ground movements and collapse, and biological hazards (poisonous snakes).</p> <p>Develop a Hazardous Materials Safety Plan as part of the H&amp;S Plan.</p> <p>Include contractual conditions to ensure that all sub-contractors follow and implement the H&amp;S Plan.</p>	Safe working environment and improved HS performance of contractors	Local regulatory requirements, PR 4	<p>Responsibility: Contractor</p> <p>Resources: In house or Consultant support</p>	Before construction commences the Plan must be approved by PC Motorways and Local H&S Authorities.	<p>Documented HS Plan</p> <p>Safety statistics and data</p> <p>PC Motorways to report on updates in AESR to EBRD.</p>
4.4	<p>Health &amp; Safety Operation Management Plan will have to clearly describe the HS requirements for both the Company and the sub-contractor's personnel during the road operation and maintenance. It should include (but not be limited to): hazardous materials management, traffic accidents, working at heights, working in confined spaces, electrical hazards, etc.</p> <p>Include contractual conditions to ensure all sub-contractors follow the H&amp;S Operation Plan.</p>	Safe working environment and improved HS performance of contractors	Local regulatory requirements, PR 4	<p>Responsibility: PC Motorways</p> <p>Resources: In house or Consultant support</p>	Before operation phase	<p>Documented HS Plan</p> <p>Safety statistics and data</p> <p>PC Motorways to report on updates in AESR to EBRD.</p>
4.5	PC Motorways to ensure that the Contractor develops and implements an	Adequate emergency	Local regulatory requirements,	<p>Responsibility: Contractor</p> <p>Resources: In house or</p>	Before construction commences the Plan	Documented Emergency



No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	Emergency Preparedness and Response Plan.	response.	PR 4	Consultant support	must be approved by PC Motorways	Preparedness and Response Plan PC Motorways to report on updates in AESR to EBRD.
4.6	Construct all noise barriers foreseen in the Main Design for both sections Investigate and assess any complaints made to them in relation to noise or dust nuisance, both during construction and operation	Health and safety of local communities	Local regulatory requirements, PR 4	Responsibility: Contractor Resources: included in bid price	During construction	PC Motorways to report on updates in AESR to EBRD.
<b>PR 5</b>	<b>Land Acquisition, Involuntary Resettlement &amp; Economic Displacement</b>					
5.1	Update the Resettlement and Compensation Framework (RCF) from March 2009 and the PC Motorways Procedure for Managing Expropriation of Immovable Assets (November 2013), to reflect amendments in national legislation, particularly the Expropriation Law, as well as the new EBRD Policy from 2014. Update the RCF to fully comply with 2014 EBRD E&S policy PR 5 and PR 10. The revised framework should: <ul style="list-style-type: none"> <li>▪ Include detailed requirements for grievance management.</li> <li>▪ Include updated information on consultations.</li> <li>▪ Ensure that displacement is avoided or minimised.</li> <li>▪ Reconsider the cut-off date for eligibility, compensation and assistance principles, as well as the timing of compensation and potential displacement resulting from use</li> </ul>	Management of displacement impacts. Ensuring that land acquisition and displacement are addressed as required under PR 5.	Local regulatory requirements, PR 5	Responsibility: PC Motorways Resources: In house and Consultant support	Prior to loan effectiveness	Updated RCF approved by EBRD. Report on implementation in AESR to EBRD.

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	<p>restrictions.</p> <ul style="list-style-type: none"> <li>▪ Retention of records relating to any disputes.</li> <li>▪ Completion audit to be carried out.</li> </ul> <p>The updated RCF is to be publicly disclosed.</p>					
<b>PR 6</b>	<b>Biodiversity and Living Natural Resources</b>					
6.1	<p>Vegetation clearance activities to be restricted to the winter period (from 1st December to 28th February).</p> <p>Cutting of vegetation at other times of year should be done only for maintenance purposes and should be kept to a minimum to avoid disturbance of potential nesting sites.</p>	Avoiding destruction of nests	PR 6, EU Birds Directive	<p>Responsibility: PC Motorways/Contractor</p> <p>Resources: Internal resources</p>	To be completed before the construction phase	Documented by PC Motorways to report on updates to EBRD.
6.2	Re-cultivation with indigenous plant species	<p>Ensuring successful re-cultivation in order to prevent erosion and support biodiversity</p> <p>Ensuring new nesting sites for common nightingale</p>	PR 6, EU Habitats Directive	<p>Responsibility: PC Motorways/Contractor</p> <p>Resources: Internal resources</p>	To be completed before the operational phase as soon as all construction machinery is moved from the construction site	Documented by PC Motorways to report on updates to EBRD.
6.3	PC Motorways to share with Contractor the list of bird nesting sites as well as list of indigenous plant species prepared during rapid biodiversity assessment in the framework of the Project	<p>Ensuring successful re-cultivation in order to prevent erosion and support biodiversity</p> <p>Ensuring new</p>	PR 6, EU Habitats Directive	<p>Responsibility: PC Motorways</p> <p>Resources: Internal resources</p>	Prior to the construction phase	Documented by PC Motorways to report on updates to EBRD.

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
		nesting sites for common nightingale				
6.4	Implementation of measures for prevention of collision of birds with vehicles such as optical barriers or fences along the flyover sites and on bridges	Ensuring no loss of animals on the road, as well as enhancing the safety of drivers	PR 6, EU Birds Directive	Responsibility: PC Motorways/Contractor  Resources: Internal resources	To be completed during construction phase, before the operational phase	Documented by PC Motorways to report on updates to EBRD.
<b>PR 8</b>	<b>Cultural Heritage</b>					
8.1	PC Motorways to ensure the Contractor will develop and implement a Chance Find Procedure. This will include notification of competent authorities of found objects, alerting project personnel to the possibility of chance finds being discovered and preventing any disturbance or destruction.	Preservation on cultural heritage and minimising risks to archaeological remains.	PR 8	Responsibility: PC Motorways to oversee. Contractor to develop.  Resources: In house or external consultant support	Prior to construction.  To be implemented during construction.	Documented procedure  PC Motorways to report on updates in AESR to EBRD.
<b>PR 10</b>	<b>Information Disclosure &amp; Stakeholder Engagement</b>					
10.1	Implement and regularly update the Stakeholder Engagement Plan (SEP), to ensure that all stakeholders are identified, that sufficient information about issues and impacts arising from the Project and proposed mitigation measures are disclosed in a timely manner and that all stakeholders are consulted in a meaningful and culturally appropriate way throughout project implementation. PC Motorways are to ensure that Contractor is involved in engagement with stakeholders and implements appropriate parts of the SEP.  Give clear responsibility for SEP	Management of risks and impacts on communities affected by the Project	PR 1 and PR 10	Responsibility: PC Motorways and Contractor  Resources: In house resources	Pre-construction During construction During operation	Stakeholder Engagement Plan in place prior to construction and regularly updated.  Report on stakeholder engagement in AESR to EBRD

No.	Action	Environmental Risk, Liability / Benefit	Requirement (Legislative / EBRD PR / Best Practice	Resources, Investment Needs / Responsibilities	Timetable	Target and Evaluation Criteria For Successful Implementation
	<p>implementation. The responsible person will be assigned to the Department for Planning and Construction, which will coordinate activities of other departments, monitor implementation and report to PC Motorways management and EBRD.</p> <p>Determine whether any vulnerable / disadvantaged groups, including Vulnerable Road Users, or communities are likely to be disproportionately or permanently and adversely affected by the Project and identify and implement appropriate mitigation measures.</p>					