

PUBLIC ENTERPRISE FOR STATE ROADS
Republic of Macedonia



Environmental and Social Assessment and Management
Framework (ESAMF)
for rehabilitation of State Road Sections
(First year program with WB, 2014)

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List of Abbreviations:

PESR - Public Enterprise for State Roads

WB - World Bank

MoEPP - Ministry of Environment and Physical Planning

ESAMF – Environmental and Social Assessment Management Framework

EMP - Environmental Management Plans

LAPs - Land Acquisition Plans

RAPs - Resettlement Action Plans

RPF – Resettlement Policy Framework

EA - Environmental assessment

EPSAU - Environmental protection and social aspects Unit

EIA – Environmental Impact Assessment

EIARs – Environmental Impact Assessment Reports

ESAR - Environmental Social Assessment Report

UNECE - UN Economic Commission for Europe

GEF - Global Environment Facility

OP / BP - Operational Policy/Bank Procedure

1. INTRODUCTION

1.1. Background Information

The road network in the Republic of Macedonia comprises 3.781 km of regional roads and 8.496 km of local roads and is considered to provide adequate coverage for the most part of the country. However, the road network conditions are below the standards of those in European road networks and in most of the neighboring countries.

The Public Enterprise for State Roads (PESR) intends to receive a loan/credit from the World Bank (WB) in relation to the Macedonia Regional and National Roads Rehabilitation Project. The project objective is a rehabilitation of the regional and national roads.

The rehabilitation of some road sections should include pavement rehabilitation, drainage rehabilitation, small repairs of bridges and structures, and installation of road safety equipment/signs. In the first year the Project is expected to cover rehabilitation of at least 3 different road sections with the length of 42 km, as follows which are referred to as 'sub projects':

- Rehabilitation of national road A3 from Bitola to Makazi (23km);
- Rehabilitation of national road A3 from Resen to Bukovo (11km).

On the section Resen – Bukovo (existing road with approximate length of 11 km) of the State road A3 (old mark M5) enormous damage is determined by supervision engineers of PESR and Public Enterprise for the maintenance and protection of national and regional roads "Makedonija pat". Actually there is existing significant net of road breaks, by length and rutting. From reasons mentioned it was decided to conduct an improvement of this section of the State road A3, respectively rehabilitation of following aspects of the current carriageway: structure, dimensions and constructive details. The beginning of the section Resen – Bukovo is at the mountain pass Bukovo (km 28 + 903 on A3), and the end is at the entry of the village Jankovec;

- Rehabilitation of regional road P409 from Boskov Bridge to Debar (8 km). The route begins on the junction from the road P1202 with P2246 (km 45 + 475), and ends at the entrance of city of Debar. On this section significant damage was also determined.

Selected road sections are located in 2 neighboring regions of the Republic of Macedonia (Southwest region and Pelagonija region). The activities of this Project embrace rehabilitation of the current roads in both directions. They need to produce optimal solution and improved technical and useable features of this road oriented toward safe, fast, economic and comfortable road traffic and after rehabilitation of these sections, the road features will be improved. Transit transportation will run better than in the past, thus promoting the trade and

economic relations, and traffic safety conditions of the population living in those 2 regions will be improved.

The Project is to be implemented by the Public Enterprise for State Roads (PESR). The PESR has engaged consulting services for the preparation of the Environmental and Social Assessment and Management Framework, and Environmental Assessment Reports and Environmental Management Plans for the rehabilitation of the regional roads identified for the first year of the Project (3 'sub-projects').

In accordance with the National legislation ("Decree amending the Decree for actions and activities for which preparation of Environmental Impact Assessment Report (Elaborate for environmental protection) the preparation of the EIA Reports for such projects is obligatory, and performing professional works in the field of environment is authorized ("Official Gazette in Republic of Macedonia" No. 80/2009 and 36/2013) for such projects EIA Reports should be prepared. The responsible authority for the approval of the EIA Reports is the Ministry of Environment and Physical Planning (MOEPP) – Administration for Environment.

The ESAM Framework (ESAMF) has been designed to facilitate Project implementation and ensure compliance with country legislation, procedures and policies, international Conventions and WB safeguard policies, in particular in terms of environment, land acquisition and resettlement. The Environmental Management Plans (EMP) and Land Acquisition Plans (LAPs) / Resettlement Action Plans (RAPs), with adequate public participation and disclosure¹, will be prepared for each subproject in line with the requirements of the EASMF and RPF.

1.2. Purpose of Environmental Social Assessment & Management Framework

Environmental assessment (EA) is a key WB environmental safeguard policy. EA should take into account the natural environment (air, water, and land), human health and safety, social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources), in an integrated way. It also will take into account country conditions, the findings of country environmental studies, national environmental action plans, the country's overall policy framework, national legislation, and institutional capabilities related to the environmental protection and nature conservation and social aspects.

The purpose of the EASMF is to outline the procedures for the management of environmental issues related to Category B sub-projects (ex. outline potential negative and positive environmental impacts, recommendation of measures for prevention, minimization, mitigation or compensation for adverse impacts) during implementation of the proposed Projects, with overall target improvement of environmental performance.

¹ The World Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at WBs' internet InfoShop and (ii) in-country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons

One of the main objectives of the EASMF is to ensure that the sub-projects meet national environmental requirements in addition to WB safeguard requirements. **One of the roles of the framework is to distil these requirements into a single process/procedure to be applied by PESR** in the course of Project implementation, and to ensure high level of environmental protection.

2. APPLICABLE POLICIES

2.1. Environmental Institutions

The key environmental institution in the Republic of Macedonia for approval of such environmental projects is the Ministry of Environment and Physical Planning. MOEPP is sub-divided into following main Departments/Organizational units:

- Department for EU affairs;
- Sustainable Development Department;
- Physical Planning Department;
- Legislation and standardization Department;
- MEIC Department;
- Administration for environment;
- GIS Department;
- State Environmental Inspectorate;
- Public Relation office.

The authority of the state administration responsible for performing professional activities in the domain of environment (Administration for Environment²), which operates under the MOEPP, is responsible for the review and approval of EIA Reports for the projects for such type of activities as submitted by the PESR (as investor).

The Administration for Environment carries out professional activities and technical supervision over protected parts and items of nature, over sources of pollution of soil, water and air, proposes professional, technical and technological solutions for reduction and prevention of environment and nature pollution and degradation, elaborates technical documentation in the domain of environment and nature protection and improvement, conducts measurements and monitors the state of and changes in environment and nature.

The first step according to the Law on Environment ("Official Gazette of RM" no. 53/2005, 81/2005, 24/2007, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13), is that PESR should prepare and submit an Notice of intention for project implementation. MOEPP according to the notice determines the level of the project (EIA Study / EIA Report).

² In Annex 1 is given the organization chart of the Administration for Environment.

The responsibility for ensuring the implementation of the recommendations contained in this Environmental Assessment and Management Framework and for ensuring compliance with national environmental standards lies with the Environmental protection and social aspects Unit (EPSAU) within PESR. Annex 7 contains the PESR organization chart. .

2.2. Environmental Protection and Social Aspects Unit's responsibilities

Environmental protection is one of the key aspects of planning, implementation and operation and maintenance of the national roads. Public Enterprise for State Roads is one of the most advanced institutions in the country that has Environmental Protection and Social Aspects Unit (EPSAU) which deals with the implementation of the national environmental legislation and IFI's environmental and social safeguard policies.

In the past, the former Agency for State Roads had only 1 (one) environmental protection engineer employed in 2008. In October 2012, with the Act of Systematization of working posts, 1 (one) more environmental protection engineer was employed. In order to ensure that the PESR can meet its environmental responsibilities, **a separate Environmental Protection and Social Aspects Unit was established with the Act of Systematization of working post no. 02-6407/4 dated 17.09.2013.** This would enable the PESR to fulfill its environmental functions in a more efficient and effective manner and contribute to raising environmental awareness within the Institution and in the wider road construction sector within Republic of Macedonia.

The EPSAU has an important role within the PESR. It has the key responsibility to advise the enterprise on all environmental and social policy issues related to the rehabilitation, reconstruction and construction of state roads and is responsible for the specification, commissioning review and monitoring of all strategic and project environmental appraisals undertaken by the PESR.

The EPSAU has an interface not just with their colleagues within the PESR but also with international financing institutions, MoEPP, external consultants and companies and the concerned population.

The key roles of the EPSAU include:

- Provision of Guidance on Environmental Law and Regulations;
- Provision of Environmental Guidance on the Roads Sector Programme;
- Managing the PESR Project Environmental Impact Appraisals;
- Submittal of Applications for Environmental Permits;
- Environment Monitoring of Roads;
- Collaboration with International Financial Institutions and the European Union.

The staff positions within the Environmental Protection and Social Aspects Unit within the PESR are:

- Head of EPSA Unit (1 position) – fulfilled at the moment with engineer in Environmental protection (BSc.);
- Advisor for Environmental Protection (2 positions) – fulfilled at the moment with two engineers in environmental protection (BSc), 1 (one) engineer is seconded at the moment in the Director's cabinet;
- Advisor on Social Aspects of Road Construction (1 position) – not fulfilled at the moment;
- Associate for Environmental Protection (1 position) – fulfilled at the moment with one traffic engineer, seconded at the moment in other Department in PESR.

Based on the existing situation, the PESR Environmental Protection and Social Aspects Unit has a qualified and skilled staff to perform the task of ensuring that ESMP is going to be implemented.

2.3. National EA legal and institutional framework

The European Union Environmental Impact Assessment Directive (EIA Directive 85/337/EEC as amended by 97/11/EEC and 2003/35/EC) sets out the requirements for undertaking environmental assessments of potential environmental impacts of public and private projects which are likely to have a significant impact on the environment before development consent is granted in the form of approval for project implementation. Impacts on the environment can include impacts on human beings and biological diversity; soil, water, air and other natural resources and climate; historical and cultural heritage as well as the interaction between these elements (as per Article 76 sub paragraph (2) of the Law on Environment, 2005). This EU Directive has been transposed into laws of the Republic of Macedonia. Hence, it is required that before development consent is granted for certain types of projects in the Republic of Macedonia, an EIA has to be carried out. The EIA process is meant to anticipate potential environmental harm and to avoid or mitigate such harm while balancing environmental, social and economic objectives.

Republic of Macedonia has developed full legal and institutional framework for Environmental Assessments. This framework is generally in compliance with the existing WB EA rules and procedures as well as in full compliance with the EU EIA Directives. Environmental Impact Assessment of certain projects is required to be carried out in the Republic of Macedonia in accordance with Articles 76-94 of the Law on Environment ("Official Gazette of the Republic of Macedonia" No. 53/05, 81/05 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13). The types of projects that require an EIA are to be determined in accordance with Article 77 of the Law on Environment, which are specified in details by the Government of the Republic of Macedonia in the "Decree for Determining Projects for which and criteria on the basis of which the screening for an environmental impact assessment shall be carried out" ("Official Gazette of the Republic of Macedonia" No. 74/2005). The Ministry of Environment and

Physical Planning have prepared Guidance for conducting, screening, scoping and review in environmental impact assessment in the Republic of Macedonia, Report Ref. No. 300033-06-RP-325, Skopje 2006. An aim of this Guidance is to assist in the interpretation of the EIA laws so that they can be applied in practice. This Guidance is drawn in part from screening, scoping and review Guidance provided by the European Commission. It accompanies Republic of Macedonia efforts to implement the EIA Directive and is designed to help investors, bodies of the state administration and other involved parties to undertake the highest standards of environmental impact assessment.

2.4. Legal and Regulatory Framework on EIA in Republic of Macedonia

Since 2002, adoption of the EU *Acquis* is common obligation of all sectors of the state administration, and they all have been working according to the activities set in the National Program for approximation of Macedonian and European legislation. Due to these activities new legislation has been adopted that is in compliance with the EU requirements. Thus, new laws on Environment, Nature, Air Quality, Waters and Waste Management have been adopted by the Parliament of the Republic of Macedonia.

Below is the list of the key national laws related to environmental assessment:

Law on Environment	("Official Gazette of RM" No. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13)
Law on Waters	("Official Gazette of RM" No. 87/08, 6/09, 161/09, 83/10, 51/11, 44/12, 23/12)
Law for Waste Management	("Official Gazette of RM" No.68/04, 71/04, 107/07, 102/08, 143/08, 124/10,09/11, 51/11, 123/12)
Law on Public roads	("Official Gazette of RM" No. 84/08; 52/09; 114/09; 23/11, 168/12)
Law for safe traffic on roads	("Official Gazette of RM" No. 54/07; 86/08; 98/08; 64/09)
Law on ambient air quality	("Official Gazette of RM" No. 67/04; 92/07; 47/11, 59/12,100/12, 4/13)
Law on Noise protection	("Official Gazette of RM" No. 79/07;47/11)
Law for protection and welfare for animals	("Official Gazette of RM" No. 113/07)
Law for plant protection	("Official Gazette of RM" No. 25/98, 6/00)
Law for nature protection	("Official Gazette of RM" No. 67/04, 14/06, 84/07, 35/10, 47/11, 59/12, 13/13)

Law for health and safety during work	("Official Gazette of RM" No. 92/07, 136/11, 23/13, 25/13)
Law for fire prevention	("Official Gazette of RM" No.67/04, 81/07)

2.5. Law on Environment

The Law establishes the rights and obligations of the State, public associations and citizens in regards to environmental protection.

The law defines the environmental quality standards, permitting requirements for activities that may affect the environment, measures for prevention and reduction of environmental pollution, environmental monitoring and control systems, the role of the public and sanctions imposed on polluters and others that violate the Law.

Screening is a stage of the Environmental Impact Assessment (EIA) process during which the body of the state administration responsible for affairs of the environment in the Republic of Macedonia (Ministry of Environment and Physical Planning) determines whether an EIA is required for a certain project when a notification on the project implementation intention is made. Such determination is legally required in accordance with Article 80 sub paragraph (5) of the Law on Environment ("Official Gazette of RM" No. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13).

A number of steps are taken at the screening stage to determine whether EIA is required for a project which should be taken by the Investor as far as possible and the body of the state administration responsible for affairs of the environment. Once the body of the state administration responsible for affairs of the environment has received the Content of the Notification from the Investor, including the Screening Checklist, the body of the state administration responsible for affairs of the environment shall check the Screening Checklist and shall complete it as far as possible.

In cases where the Investor is unable to provide complete and comprehensive information in the notification and screening checklist the body of the state administration that has legal competence for environmental matters will require the Investor to complete this document. Once it is completed then body of the state administration that has legal competence for environmental matters may take advice from persons on the List of Experts or may consult informally with other bodies of the state administration that have legal competency for environmental matters, including but not limited to bodies of the state administration that have competence for water management, health and safety, hazard prevention, industry, economy, construction, transportation, energy and agriculture.

The body of the state administration responsible for affairs of the environment may seek the opinions of other interested parties including the public to help identify any local concerns about the proposed project in accordance with its responsibilities under the Decree determining

projects for which and criteria on the basis of which the screening for an environmental impact assessment shall be carried out. Further to its obligations under Articles 4 to 9 of this Decree, the body of the state administration responsible for affairs of the environment may seek advice from EIA experts who will have either had experience with similar EIA studies or issues. Such experts may have the specialized knowledge that is necessary for determining whether, for example, an environmental impact is significant for a given environmental resource.

The following flow diagram summarizes the basic procedural and substantive elements of the EIA:

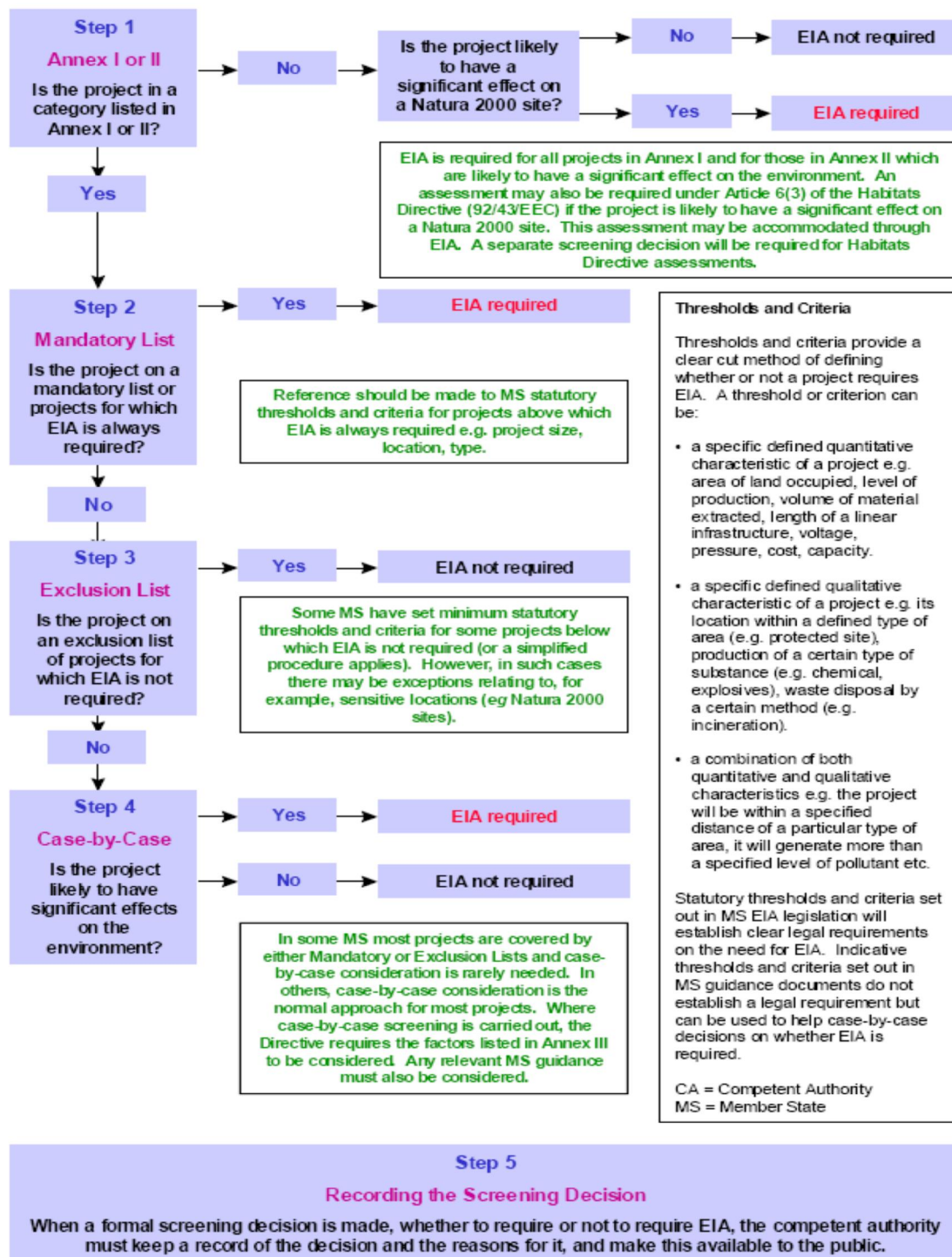


Figure 1: Environmental Assessment Process (source: Guidance for conducting, screening, scoping and review in environmental impact assessment in the Republic of Macedonia, Report Ref. No. 300033-06-RP-325, Skopje 2006)

The procedures for Environmental Assessment Process cover the following aspects:

- a) Notification of intent to conduct a project to MOEPP
- b) Project Screening
- c) EA Document Content (Scoping)
- d) EA Review and Approval including Public Consultation
- e) Disclosure

2.6. Environmental Screening

A number of steps are taken at the screening stage to determine whether ESAR is required for a project. The following steps should be taken by the Consultant and the body of the state administration responsible for affairs of the environment upon receipt of the Notification as follows:

Does the Proposed Project (including any change in an existing project) fall within the lists comprising Annex I or Annex II of the Decree for Determining Projects for which and criteria on the basis of which the screening for an environmental impact assessment shall be carried out?

There are four possible answers:

- ❖ Project falls within the list comprising Annex I. In this case, the screening decision is that an EIA is required.
- ❖ Project falls within the list comprising Annex II. In this case, the screening stage continues to Step 2.
- ❖ **Project does not fall within the lists comprising either Annex I or Annex II. In this case, the screening decision is that EIA is not required.**
- ❖ Project is exempted from EIA under Article 78 of the Law on Environment. In this case the screening decision is that EIA is not required. Those cases that might fall under Article 78 of the Law on Environment are to be considered via an alternative procedure.

In case where the project does not fall within the lists comprising either Annex I or Annex II, and in accordance to the article 24 of Law on Environment ("Official Gazette of the R. Macedonia" no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13) and decision of the authority responsible for performing professional activities in the field of environmental protection at MoEPP (Administration for Environment) upon Notification of intention according to Decree amending the decree for the activities and actions that require preparation of elaborate (EIA Report), and for which approval is competent the authority for performance of professional activities in the field of environmental protection ("Official Gazette of RM" No. 36/12).

The EIA Report (Elaborate) is prepared in accordance with the Law on Environment³ and Bylaw (Rulebook) on the form and content of the Elaborate for environmental protection ("Official Gazette of RM" No. 44/13).

The World Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The World Bank classifies the proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. **The current projects for rehabilitation of road sections have been classified by the World Bank as a Category B project.**

A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category A projects. These impacts are site-specific and smaller in scope and shorter in duration; they require a chapter in the prefeasibility or feasibility report; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects. The scope of an EA for a Category B project may vary from project to project. The EA examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

2.7. Review and decision for approval or disapproval for implementation of project (approval of EIA Study / EIA Report)

The second stage of the EIA process starts with submission of Environmental Impact Assessment Report (EIA Report) by the Consultant to the Investor/PESR (Unit for environmental protection and social aspects) and the World Bank (WB) team for review and comments for compliance with environmental, social and legal safeguard policies of the WB. Final approval of EIA Study will be given after public consultation meeting in the project area is held in accordance with WB Requirements and national requirements. For the EIA Report, according to the national legislation no public consultation process is required.

At this stage, an environment review group is formed by Department of Environment (Unit for EIA) within the MoEPP. There are no firm requirements on group composition, but MoEPP (Administration for Environment) has a roster of employees from various departments and licensed national experts on EIA and composes each commission based on case-specific considerations. This environment review expert group is chaired by Unit for EIA within the Administration for Environment (MoEPP) and carries out the public submissions, investigations and consultations if needed. Finally, a written review of documentation together with draft Decision for approval or disapproval for implementation of project is submitted by the

³ Article 24, Elaborate for environmental protection

environmental review group to the responsible authority (Director of the Administration for Environment or Minister of the MoEPP) for approval and issue of Decision for approval or disapproval for implementation of project (EIA Study or EIA Report).

Implementation

During project implementation, the borrower reports to the World Bank on (a) compliance with measures agreed with the World Bank on the basis of the findings and results of the EA, including implementation of any Environmental Management Plan (EMP), as set out in the project documents; (b) the status of mitigation measures; and (c) the findings of monitoring programs. The World Bank bases supervision of the project's environmental aspects on the findings and recommendations of the EA, including measures set out in the legal agreements, any EMP, and other project documents.

According to the Law on Environment ("Official Gazette of the R. Macedonia" no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13 and 187/13) Article 198, State Environmental Inspector and Designated Environmental Inspector (Local Environmental Inspector from the municipality) have legal right to perform *inter alia*: on site visits in order to determine does the construction activities fulfill environmental standards, does emissions of pollutant materials and substances have occurred, does the measures given in program of measures for environmental protection within the EIA Report are implemented and to what extent, etc.

2.8. Relevant international conventions

With regard to the context of the present 'Rehabilitation of National road roads program', the Law on EP specifically states that Administration for Environment is guided, *inter alia*, by international legal obligations.

The Republic of Macedonia is a party to the **UN Economic Commission for Europe (UNECE) Convention** on EIA in a Trans-boundary Context (or Espoo Convention), which stipulates the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. The Convention also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. The present Project will be physically restricted to the territory of Macedonia, so that issues of serious trans-boundary concern are not anticipated. The fact, however, that Macedonia ratified this Convention suggests that the general and internationally accepted principles that apply to the EIA process and that are laid down in this Convention are accepted. The Convention was ratified by the Law on Ratification ("Official Gazette of RM" No. 44/99).

The objectives of the **Convention on Wetlands of International Importance as Waterfowl Habitat ('Ramsar Convention')** are to stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational value; and to coordinate international efforts for this purpose. Signatories are obliged to: (i) specify at least one wetland on a List of Wetlands of International Importance; (ii) encourage the wise use of wetlands; (iii) establish wetland reserves, cooperate in the exchange of information and shared wetlands species. The Convention was ratified with the Decree for ratification ("Official Gazette of SFRJ" No. 9/77). Republic of Macedonia accedes to this Convention by act of succession and with nomination of Prespa Lake in Ramsar list in 1995.

The Convention on Biological Diversity seeks to ensure conservation of biological diversity and sustainable use of its components. WB is one of the Implementing Agencies for channeling resources available from the Global Environment Facility (GEF) to viable biodiversity projects in developing countries and is engaged in project lending for environmentally sustainable development. The Convention on Biological Diversity (Rio) was ratified with Law on Ratification ("Official Gazette of RM" No. 54/97) and entered into force in 1998.

The UNECE Convention on Access to Information, Public Participation in Decision-Making and access to Justice in Environmental Matters ('Aarhus Convention') establishes a number of rights of the public (citizens and their associations) with regard to the environment. Public authorities (at national, regional or local level) are to contribute to allowing these rights to become effective. The UNECE Convention was ratified in 1999. The Convention provides for:

- The right of everyone to receive environmental information that is held by public authorities ('access to environmental information'). This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Citizens are entitled to obtain this information within one month of the request and without having to say why they require it. In addition, public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession;
- The right to participate from an early stage in environmental decision-making. Arrangements are to be made by public authorities to enable citizens and environmental organizations to comment on, for example, proposals for projects affecting the environment, or plans and programmes relating to the environment, these comments to be taken into due account in decision-making, and information to be provided on the final decisions and the reasons for it ('public participation in environmental decision-making');

- The right to challenge, in a court of law, public decisions that have been made without respecting the two aforementioned rights or environmental law in general ('access to justice').

2.9. Relevant World Bank safeguards policies

WB environmental and social safeguard policies are regarded as a corner stone of its support to sustainable poverty reduction. The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. These policies provide guidelines for the WB and borrowers in the identification, preparation and implementation of programmes and projects. Environmental Impact Assessment (EIA) is one of 10 environmental, social and legal safeguard policies of the WB. EIA is used in the WB to identify, avoid and/or mitigate the potential negative environmental impacts associated with lending operations. The purpose of EIA is to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been adequately consulted. The WB's environmental assessment policy and recommended processing are described in **Operational Policy (OP)/Bank Procedure (BP) 4.01: Environmental Assessment**. This policy is considered to be the 'umbrella' policy for WB environmental 'safeguard policies'. For the present Projects for rehabilitation of National road program, the relevant safeguard policies to be considered at all stages of preparation and planning are:

- Involuntary Resettlement (World Bank OP/BP 4.12);
- Natural Habitats (World Bank OP/BP 4.04: Natural Habitats 2001);
- Forestry (World Bank OB/BP 4.36);
- Management of Cultural Property (World Bank OP 11.03).

The WB's requirements on Information Disclosure are detailed in the Access to Information Policy last revised in July 2013.

The WB OB/BP on Involuntary Resettlement requires WB-assisted projects to avoid or minimize involuntary land taking. If such cannot be avoided, displaced persons need to be meaningfully consulted, compensated for lost/damaged assets and assisted in restoring or improving their living standards and livelihood. The policy requires that if involuntary land taking and resettlement become necessary, a clear plan for compensating and assisting displaced persons be prepared by the borrower by appraisal for WB review. Such a plan must be substantially completed prior to the commencement of civil works.

The WB OP/BP on Natural Habitats seeks to ensure that WB-supported infrastructure and other development projects take into account the conservation of biodiversity, as well as the numerous environmental services and products which natural habitats can provide to human society. The policy strictly limits the circumstances under which any WB-supported project can

damage natural habitats, i.e. such land and water areas where most of the native plant and animal species are still present. Specifically, the policy prohibits WB support for projects which would lead to significant loss or degradation of any Critical Natural Habitats, whose definition includes those natural habitats which are either:

- legally protected;
- officially proposed for protection;
- unprotected, but known of high conservation value.

In other (non-critical) natural habitats, WB-supported projects can cause significant loss or degradation only when:

- there are no feasible alternatives to achieve the project's substantial overall net benefits; and
- acceptable mitigation measures, such as compensatory protected areas, are included within the project.

At the Project level, WB seeks to ensure that its lending operations comply with international obligations to protect biodiversity. EIAs for WB should take into account the impacts of proposed projects on a country's biodiversity.

The WB OP/BP on Forestry aims to reduce deforestation, enhance the environmental contribution of forested areas, promote afforestation, reduce poverty and encourage economic development. The policy defines a forest as an area of land of not less than 1.0 ha with a tree crown cover (or equivalent stocking level) of more than 10% that has trees with the potential to meet a minimum height of 2 m in situ (in its original position). The WB does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. Critical forest areas are natural forest lands which are:

- existing protected areas and areas officially proposed by governments as protected areas, areas initially recognized as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas;
- sites identified by WB or an authoritative source, such as areas with known high suitability for biodiversity conservation and areas that are critical for rare, vulnerable, migratory or endangered species.

The WB OP on Cultural Property is based on the acknowledgement of cultural resources as sources of valuable historical and scientific information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. WB policy as stated in Operational Directive (OD) 4.50 is to: (a) assist in protecting and enhancing cultural property through specific project components and (b) decline to finance projects which significantly damage cultural property, and assist only those that are designed to prevent or minimize such damage.

WB policy on Access to Information follows specific procedures: ESAR reports will be presented to both the Government of the Republic of Macedonia and WB Management and

serve as a background document for approval by the competent authority. In accordance with OP/BP 4.01, the Borrower will have to make the draft ESAR Report and Land Acquisition Plan (LAP) available in Macedonian at a public place accessible to project-affected groups and local NGOs. The Borrower must also officially transmit the ESAR report and LAP to WB. Once the ESAR report and LAP have been locally disclosed and officially received and approved by WB, the WB will also make them available to the public through its Infoshop.

As regards WB's internal ESAR procedure, Environmental Screening is an important step at the stage of project preparation through which proposed projects are attributed to the appropriate extent and type of ESAR. In practice, the significance of impacts, and the selection of screening category accordingly, depends on the type and scale of the project, the location and sensitivity of environmental issues, and the nature and magnitude of the potential impacts.

3. PROPOSED FRAMEWORK FOR SCREENING, APPROVAL AND MANAGEMENT

3.1. Introduction

All sub-projects under the proposed Project will have to conform to current Macedonian environmental laws, and at the same time comply with international requirements and the regulations and the procedures of the WB's safeguard policies, including Environmental Assessment (EA) policy outlined in Operational Policy 4.01, and (as applicable), Natural Habitats (OP 4.04), Cultural Property (OPN 11.03), and Involuntary Resettlement (OP 4.12).

To achieve this goal, particular tools are outlined in the following section that supports the project management process. A side benefit of this approach will be improved communications and trust between PESR and MoEPP, and increased transparency and accountability in the decision making process for the environmental assessment of internationally financed road projects in Republic of Macedonia. A summary of the key steps to be completed by PESR's EPSAU to ensure the environmental assessment and management of sub-projects is outlined in the attached diagram. Detailed guidance is provided in the following text.

PROJECT PREPARATION	Activities	Tools to be used
1. Preliminary screening and preparation of Notification Letter	Identify project as Category A, B or C Prepare Notification Letter and submit to MoEPP.	As per WB OP 4.01 and national legislation Notification Letter format given in Annex 2 Sample ToR for ESAR and EIA Report (Elaborate) is given in Annexes 3 & 5
2. Final Notification Letter and ToR	MoEPP comments on Notification Letter and Final ToR for ESAR and EIA Report are prepared	
EIA STUDY AND DISCLOSURE PHASE		
3. ESAR and EIAR	Carry out ESAR and EIAR to collect and prepare the required environmental information according to the agreed TOR	
4. Internal quality review	Review the document for its completeness	Complete coverage of ToR bullets for ESAR and EIAR in Annexes 3 & 5
5. Submission of draft ESAR & EMPs to PESR and WB	Submit draft ESAR and EMP to WB for review and clearance	
6. Submission of draft EIAR to MoEPP	Submission of draft EIAR for review and approval	
7. Disclosure	Disclose draft ESAR, EMPs and EIAR within Republic of Macedonia	
8. Public Consultations	Organization of presentation to public and relevant institutions	

9. Environmental Approval	MoEPP issues Decision for Approval	
10. WB approval	Confirm to WB that all applicable environmental procedures such as public consultations have been followed and necessary supporting documentation submitted to obtain 'no objection'	
PROJECT IMPLEMENTATION PHASE		
10. Compliance monitoring during construction	Ensure proper implementation of EMP during construction and operational phase. The overall supervision of works that will be carried out by the contractor will be done by relevant departments of PESR, with support from consultants, to ensure that the EMP is properly followed	
11. Reporting	Submit progress reports to WB	

3.2. EIA Management Steps

3.2.1. Introduction

The Environmental and Social Assessment and Management Framework for rehabilitation of National road Sections will provide a useful source of information in preparation of documentation required according to the ToR:

- i. Consultant will prepare Notification letter for intention for conduction of a project (project brief⁴). Notification letter will be submitted to MoEPP;
- ii. Consultant will prepare **Resettlement Policy Framework**⁵ (RPF) compliant with the World Bank Operational Policies on Social Safeguards;
- iii. Consultant will prepare **The Resettlement Action Plan – RAP**⁶ (Land Acquisition Plan) per specific subprojects;
- iv. The consultant will prepare the **Environmental and Social Assessment Reports and Environmental Management Plans** (ESAR & EMP) for each road specified above comprising at least of following:
 - ✓ **Environmental and Social Assessment Reports**⁷
 - ✓ **Environmental Management Plans**⁸ (comprised of: **Mitigation Plan, Monitoring Plan and Implementation Schedule and Cost Estimates**)
- v. Consultant will prepare **Environmental Impact Assessment Report** (EIAR) for each sub project in accordance to Decision of MoEPP (Administration for Environment)⁹.

⁴ Annex 2 presents an example of how should be written the Notification letter in accordance with the national legislation

⁵ RPF is separate document

⁶ RAP is separate document

⁷ Annex 3 presents the outline for ESAR

⁸ Annex 4 presents the outline for EMP

⁹ The ESARs/EMP and EIARs for each road section should be compatible documents acceptable for the WB and National Authorities. ESAR shall be approved in English by WB, and EIARs shall be approved by the MoEPP in Macedonian language.

After receiving WB confirmation on ToR and ESAMF, EPSAU will submit the Notification letter to MoEPP, which will have about one month to examine the application and to consult with appropriate experts and members of various departments within the MoEPP (Administration for Environment) regarding the affected environmental mediums as well as with the potentially affected public if required, before informing PESR of its requirements regarding the scope and depth of the EIA documents EIARs as well as need or no need for public consultation.

Sample TOR for Category B projects and ESAR/EMP are included in Annexes 3 and 5. The main differences for sub-projects classified as 'Category A' and 'Category B' relate to (i) the requirements for public consultation on the draft TOR; and (ii) the requirements for an analysis of project alternatives.

Table 1 Category B projects, analysis of alternatives

	Category B projects
Public consultation	Public consultation is held at least once, i.e. 1. when a draft EA Report has been prepared; this meeting is chaired by Public enterprise for state roads with support from their EIA consultant
Analysis of alternatives	Consideration of alternatives is not mandatory

Environmental and Social Impacts Assessment Report should be completely prepared and submitted to the PESR and WB for approval. EIAR should be completely prepared and submitted to the MoEPP for approval. The ESARs/EMP and EIARs for each road section should be compatible documents acceptable for the WB and National Authorities (it can be considered as one document with small modification needed for its approval). ESAR shall be approved in English by WB and after approval shall be translated in Macedonian language for public access and consultations. EIARs shall be approved by the MoEPP in Macedonian language.

The Environmental and Social Impacts Assessment Report should cover the under mentioned essential requirements:

1. Conservation, protection, recovery and promotion of the quality of the environment;
2. Protection of the people's life and health;
3. Protection of the biodiversity;
4. Rational and sustainable usage of natural resources;
5. Implementation and promoting the measures for solving the regional and global problems of the environment,

EIA Report should be prepared in accordance with Rulebook (Bylaw) on the form and content of the EIA Report (elaborate) ("Official Gazette of RM" No. 44/13) and Decree amending

the decree for the activities and actions that require preparation of elaborate, and for which approval is competent the authority for performance of professional activities in the field of environmental protection ("Official Gazette of RM" No. 36/12). The indicative content of the EIA Report is given in Annex 5.

3.2.2. Finalization of ToR for ESARs, EMPs and EIARs

The ToR for the required environmental documents (ESARs, EMPs and EIARs) for each sub-project shall be reviewed and approved by WB.

3.2.3. ESARs, EMPs & EIARs

PESR has engaged consultants to prepare the first year roads' draft ESARs, EMPs and EIARs in accordance with the agreed TOR. A sample EMP is provided for reference in Annex 4 which specifically identifies the responsibilities of the Contractor.

The preparation of the draft ESARs, EMPs and EIARs for the second to forth years of the project is subject to a separate consultancy assignment which will be launched after the roads for the next phase of the project are identified. It is important that those consultants are provided by PESR with a copy of the Environmental and Social Assessment and Management Framework and any other related documentation.

The overall objective of this document is general identification of environmental and social aspects and concerns associated with the foreseen road rehabilitation activities. The following impacts during the rehabilitation activities are expected:

- fugitive emissions of dust from the excavation activities;
- emission of exhaust gasses from the construction machinery;
- generation of municipal waste from the employees', and construction waste;
- waste waters produced by the employees;
- emissions in to surrounding soil;
- noise and vibrations from the construction machinery;
- impacts on the biodiversity present in the area;
- socio – economic impacts;

Detailed elaboration of above mention impacts will be done in road – specific Environmental and Social Assessments and Management Plans.

3.2.4. Environmental mitigation and monitoring plans

Financial obligation for preparation of EA/EIA, as envisaged by the national requirements, is with the Public Enterprise for State Roads, as a part of preparation of project documentation.

Cost of activities determined as necessary in the Environmental Mitigation Plans will be included in the overall sub-project costs and eventually will be incorporated into construction contracts, while the cost of the implementation of Environmental Monitoring Plans will be borne by the Public Enterprise for State Roads on maintaining the infrastructure funded by the project.

Final responsibility for ensuring timely preparation of site-specific ESARs, EMPs and EIARs, according to requirements of national legislation and in line with WB procedures, will lie within the Public Enterprise for State Roads. In performing this task the PESR will liaise with the relevant authorities in recipient municipalities, the Ministry of Environment and Physical Planning and other national bodies and authorities as may be defined in relevant national legislation, as well as with the World Bank. Coordination of environmental monitoring and reporting in line with this Report and environmental section of PESR will be undertaken by the PESR, and reported to the Bank on quarterly basis as part of the project progress reporting.

4. Content of Environmental Management Plans (EMPs)

The EMP will identify the mitigation, monitoring and institutional measures to be eliminating adverse environmental or social impacts, offset them, or reduce them to acceptable levels. The EMP should include:

(i) **Mitigation Plan** - identify feasible and cost effective measures to reduce potentially significant adverse environmental impacts to acceptable levels. Compensatory measures should also be addressed and links should be provided to any other mitigation plans. Institutional arrangements for the implementation of this plan should be well defined.

(ii) **Monitoring Plan** - identifies and describes the monitoring measures that will be employed to track the effectiveness of the Mitigation Plan. Describe the environmental parameters to be monitored, the monitoring methods, sampling locations, frequency, costs, detection limits and thresholds that would signal corrective actions. Outline the monitoring and reporting procedures. Institutional arrangements for the implementation of this plan should be well defined.

(iii) **Capacity Development and Training** - assess the capacity, and outline measures to strengthen the environmental management capability, of agencies responsible for implementation of the Mitigation and Monitoring Plans.

(iv) **Implementation schedule and Cost Estimates** - for (i) to (iii) above the Environment Management plan is providing an implementation schedule and estimation of the cost based on foreseen mitigation measures, implementation of monitoring plan and capacity development and trainings.

5. Proposed frameworks for public consultation/participation and disclosure

5.1. Procedure for public consultations

Within the national EIA procedures the Public involvement is regulated by environmental laws, secondary legislation on public information, public participation and access to justice and in accordance with International Conventions signed and ratified by Republic of Macedonia (e.g. Aarhus Convention).

The Public and stakeholders involvement is performed through:

- disclosing of the information about the project and the EIA report to the Public;
- public participation where the public can actively be involved in public discussions and present their written or verbal opinion within the different EIA phases of the procedures; and
- through the mechanism of access to justice, when the public can influence the decision making by submitting appeals to the Court or Second Instance Commission of the Government.

Public involvement entails a dialogue with interested parties before key project decisions are made. While the final decisions on project options generally remain with the PESR, public inputs should be seriously considered and identified if used in reaching road planning decisions. Participation does not imply complete sharing of decision-making power, but recognizes shared responsibility for both negative and positive aspects of the project.

For projects falling under WB Category B, PESR will consult with the project affected groups and local NGOs about the project's environmental aspects and take their views into account.

The public consultation will occur when the ESARs, and EMPs are in a 'close-to-final' draft phase and the findings of the draft ESARs/EMPs will be discussed. The views of the public will be incorporated in the final ESARs, EMPs and EIARs.

During the public consultation meeting, PESR will be supported by its environmental consultants.

For meaningful consultations, PESR will provide relevant information to the public in an appropriate form and language, and in timely manner. The minutes of public meetings will be recorded and included in the final ESARs, EMPs and EIARs.

PESR will consult with the public throughout project implementation, as necessary, to address ESARs, EMPs and EIARs related issues that affect them.

5.2. Procedures for Disclosure

The PESR will ensure that the findings of the ESARs, EMPs are available in a public place. In addition, PESR will make the ESARs / EMPs available at a place accessible to the public and especially to the groups which are likely to be affected by the project, and NGOs. These reports will be in Macedonian language.

The PESR will ensure that all ESARs, EMPs are submitted to WB in English for review and clearance. After these documents are disclosed in country in a local language, the WB will disclose the ESARs, EMPs and summary versions (if any) available to the public through its InfoShop.

6. Reporting requirements (Timing And Reporting)

The progress under the assignment will be closely supervised by the Environmental Specialist of the PESR. The assignment will include site visits by the Consultant (at least twice to each project site, or as may be needed for the fulfillment of the assignment).

The draft Environmental and Social Assessment Reports and Environmental Management Plans will undergo review by the Client and the World Bank. All the comments provided as a result of these reviews will have to be incorporated by the Consultant within 5 Working Days (WD) after receipt of the comments.

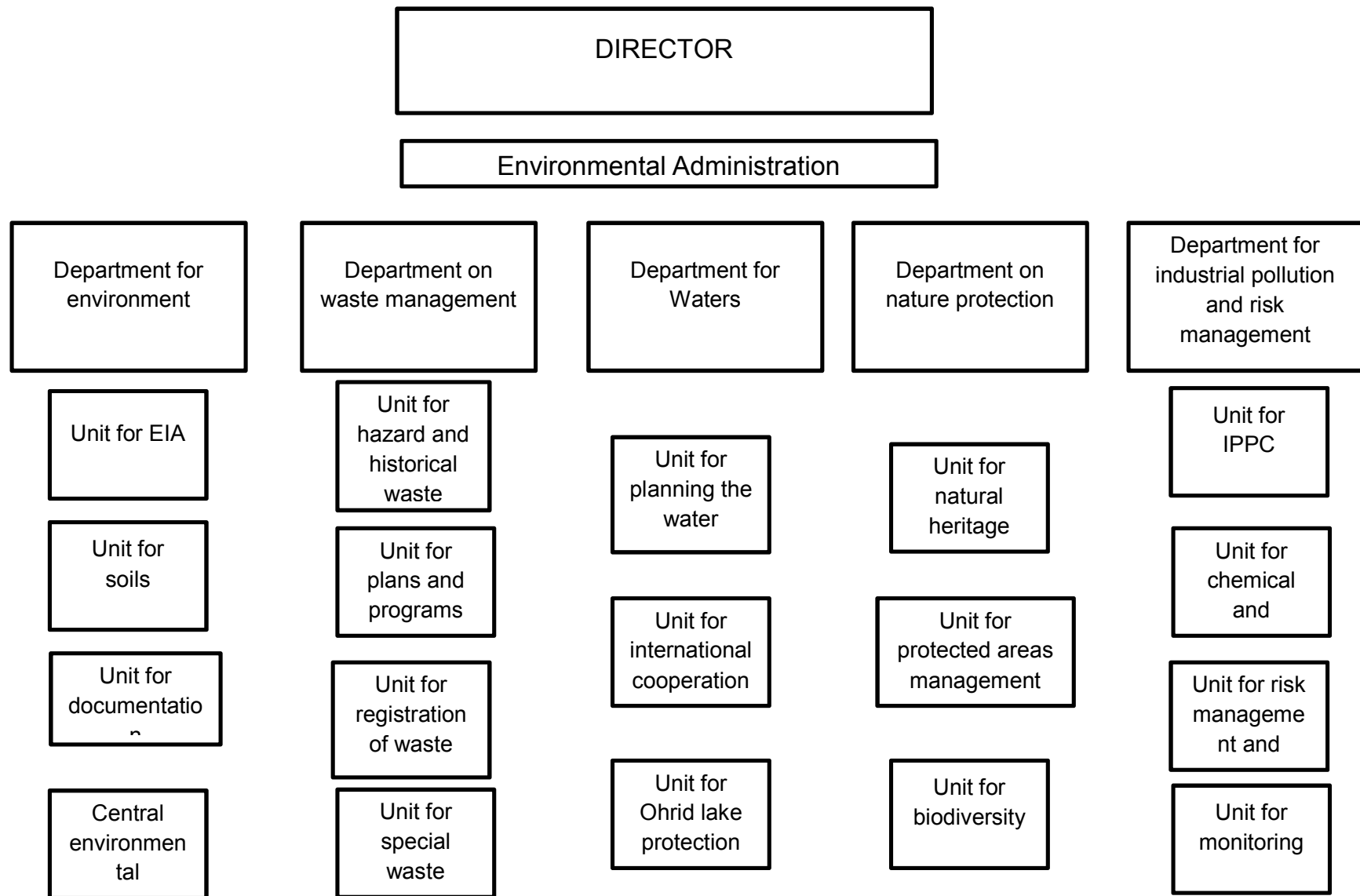
Written reports, newsletters, and Leaflets written documents for informing general audiences should be clear and concise, avoiding long sentences and technical terms or jargon.

As part of regular reporting on the project, PESR will submit to WB a brief statement on the status of the environmental compliance under the project through the Project Summary Report. The outline of the report to be submitted to WB is attached (Appendix 6).

ANNEX 1

Organization chart of Administration for Environment (within MoEPP)¹⁰

¹⁰ Latest Organisational chart can be found on www.moepp.gov.mk



ANNEX 2

Notification letter to MoEPP

The Notification letter (to MoEPP) of implementation of a project contains the following information:

1. Information for the investor;

- The name and surname of the investor;
- Postal fax of the enterprise seat;
- Telephone, fax and e-mail address of the investor; and
- The name and surname of the appointed person for contact and his postal fax, telephone and e-mail address.

2. Project characteristics;

- It states the category, in which category the project belongs and (Appendix I or Appendix II from the Decree of project determination and the criteria basis used to confirm the necessity for implementing the action of evaluation the impacts on the environment (Official Gazette of Republic of Macedonia No. 74/05)
- The reasons counted for the assessment and proving that they are not necessary; short description of the proposed project including the proposed capacity and the project size;
- Description of the main processes including the range, production capacity, invested resources at the beginning of the process and manufactured quantity; reasons for project proposal, concept where the borders of the construction zone are represented, including the land that it is necessary for the time of construction; special form of the construction zone (appearance, construction objects, other objects, construction materials etc.).
- Potential new grips related to the approach of the construction area or changes in the existing placement of the public roads; working frames for the phases of construction, working and letting in use, and returning the former condition and the activities after the end of the construction where it is necessary; construction methods.
- Resources which are used for the construction and the working process (materials, water, energy, etc.); connection with other existing or planned projects; information for the alternatives which are taken into consideration.
- Information for measures intended to make decrease of the negative influences; other that could arise as a consequence of the project (exploitation of mineral raw, providing a new water supply systems, generating and transmission of electricity, increased number of households and sewerage system);
- Data for other eventually approvals necessary for the project; and stating other consulted sides which receive a notification.

3. Location of the project

- Characteristics of the protected areas;
- Sensitive landscapes; and
- Data for eventually alternative locations that possibly will be taken into consideration.

4. Characteristics of the possible influence:

- Indicating the potential emissions in the water, air and soil;
- Influences on the human health and living conditions, biological diversity, soil, land purpose, material goods, climate, noise and vibrations, landscape and visual surrounding, natural, cultural and historic heritage, and their mutual influences;
- Character of the impacts (directly, indirectly, secondarily, cumulative, short-term, medium-term, long-term, permanent, temporarily, positive, negative);
- Scale of impact (geographical area, range of the population/households/species concerned.
- Range and greatness of the influence;
- Probability of the influence;
- Time duration, frequency and reversibility of the influence;
- Measures included in the project design for decreasing, avoiding or neutralization of the most significant negative influences; and
- Cross-border influences.

5. Additional information

- Stating the authority and the board responsible for issuing permit respectively decree for project conduction.
- Notification date;
- In the cases where differs from the investor – the name, surname, address and telephone number of the person planning the notification and the persons that took part in the preparation phase;
- Signature of the person setting up the notification and proving the authenticity of information included;
- An overview that determines the necessity of the impact on the environment;

In accordance with the suggestions and the authority responsible for the issues from the environment, number of copies which the investor must provide it's equal with the number of authorities which took a part. The procedure for determination of the environmental impact could vary from one action to another.

ANNEX 3

Environmental and Social Assessment Reports (ToR requirements)¹¹

¹¹ As per World Bank ToR requirements.

(i) Executive Summary and Conclusions

(ii) Policy, Legal and Administrative Framework

(iii) Project Description

(iv) Baseline Data

(v) Environmental and Social Impacts

The consideration of potential adverse impacts should include, inter alia:

- Borrowing construction materials: identify and assess potential borrow areas as well as access roads, material storage areas, and any sensitive receptors in the vicinity of the borrow areas; specify the types and volumes of the materials to be extracted; determine the impacts of material extraction operations. Should there be any privately owned borrow areas which can be potentially used by contractor for purchase of materials, the report should provide for the assessment of environmental compliance of those sites and acceptability of those sites for the purposes of the Bank supported operation. Describe the procedure for issuing licenses for operation of borrow pits, and access monitoring and enforcement practices of local authorities. Outline main aspects, timing and responsibilities for the preparation of the borrow pit operation, maintenance plan and for the borrow area reclamation/rehabilitation area;
- Noise and Vibration: identify areas where noise mitigation measures will be required, with specifying the current level and providing the forecasts for the level of noise and vibration for the post-project period; identify the locations and design for noise mitigation measures and indicate the noise and vibration reduction level against the standards applicable for the project (as per the Macedonia regulations);
- Natural Habitats: determine the location of natural habitats in the project area, identify any potential impacts and mitigation measures to be implemented, including those of seasonal character, and arrangements which contractor should have in place to ensure the proper implementation of the mitigation plan; should any vegetation clearance be required in the course of civil works, identify clearly the locations of anticipated vegetation clearance, and propose mitigation and/or compensatory measures to be implemented; identify any wetlands located in the project area, and define their status as per the ecological value, assess impacts on the wetlands and propose specific mitigation measures to protect;
- Impact on water resources: identify any impacts on the water resources in the projects area, and propose adequate mitigation measures and monitoring mechanisms.

(vi) Environmental Management Plan

ANNEX 4

Environmental Management Plans¹²

¹² EMP should consist of following: narrative of the TOR requirement's for matrix - in form of matrix given below (matrix given represents only general impacts accompanied by general measures for environmental protection, all identified impacts for specific road project on project area should be individually elaborated within each EMP) and outline tasks described in chapter 4, in order adequate measures to be identified and their proper conduction to be secured

MITIGATION PLAN

	Issue	Mitigation measures	Cost ¹³		Institutional Responsibility		Comments
			Install	Operate	Install	Operate	
Phase							
Detailed design	Potential permanent impairment of local population; Safety risk for road through crossing users individuals	Construction of a protective fence			Contractor	Maintenance unit "Makedonija Pat"	Design fence to be refined during detailed design with support of local experts
Construction	Traffic safety Impairment of traffic during construction Endangering of traffic outside working hours, placement of traffic signs	The contractor will provide: - information to the public about the scope and schedule of construction activities and expected disruptions and access restrictions - measures to allow for permanent adequate traffic flow around construction areas; - adequate signalization, traffic safety signs, barriers and flag persons for traffic control; - appropriate lighting and well design safety signs			Contractor	Contractor	Traffic plans to be approved by road police. Road police should also assist in law enforcement.
	General Work Safety	The Contractor will provide a statement on accident, fire and chemical spill containment/ emergency procedures			Contractor	Contractor	
Construction	Top soil	Top soil shall be stripped and be			Contractor	Contractor	

¹³ Costs for all mitigation measures and their implementation will be included in specific EMPs for each sub project (with responsibility for their implementation, phase etc.), and also will be integral part of the BoQ of the TD for selection of a Contractor for rehabilitation.

	preservation	reused. Long-term stockpiles of topsoil will immediately be protected to prevent erosion or loss of fertility.					
	Potential pollution of soil and groundwater/contamination of surface water	<p>The contractor shall detail proposed measures to avoid or reduce adverse environmental impacts resulting from installation and operation of his work camp.</p> <p>As a minimum, the following measures will be taken:</p> <ul style="list-style-type: none"> - The contractor shall submit storage and its location, and of the filling station and car washing site to the local executive and car washing site to the local executive and their location, further than 500 m from water sources and irrigation systems; - Provision of secure, impermeable and bounded compounds to store chemicals and oil distant from any surface waters; - Establishment of a waste management plan covering the following: regular waste collection and disposal from worksite / contractor's yard and workers camp, separate collection of toxic and harmful waste as well as used tires to be handled in co-operation with an approved, authorized partner, according to the relevant regulatory 			Contractor	Contractor	Contractor to submit a separate plan describing the location and layout of his work camp and providing details on the management of waste, the storage and handling of fuel, diesel, oil and other toxic / harmful substances

Construction	Equipment servicing and fuelling	<ul style="list-style-type: none"> - Fuelling and servicing of equipment and machinery will be confined to designated areas designed to contain spilled lubricants and fuel; - Storage, handling and disposal of waste oil shall be managed and disposed of approved sites - Washing of vehicles or any equipment in the Collector or temporary streams or ponds will be strictly forbidden. To this regard the contractor will inform his workforce accordingly 			Contractor	Contractor	
	Worker's safety and health Poor work site conditions may deteriorate worker's health	<ul style="list-style-type: none"> - Provide adequate health care facilities within the construction sites, including first aid equipment and facilities; - Provide workers with safety instructions and appropriate personal protective gear such as protective clothing, safety boots, helmets, gloves, goggles, ear protection, etc. - Train all construction workers in basic sanitation and health care issues, general health and safety matters and on the specific hazards of their work; - Assure good drainage at all sites within the construction camp to avoid stagnant water bodies which may become breeding sites for vectors of waterborne diseases; - Regular clearing of septic tanks 			Contractor	Contractor	The Contractor should appoint an environment, health and safety manager in the Construction Supervision construction Team Personal working gear to be specified and made a separate, priced item in the bidding documents

		<p>from worker's camp and other mobile toilets to prevent outbreak of diseases</p> <ul style="list-style-type: none"> - Provide clean potable water for all workers in compliance with the relevant national standards on drinking water quality. 					
	Material supply <i>Asphalt Plant</i> Dust, fumes, worker's health & bidding safety, ecosystem disturbance;	<p>The Contractor shall obtain official approval or valid operating license for the asphalt plant. He shall submit a layout plan of the site of the mixing plant and a method statement on handling of bitumen spills prior to the commencement of works.</p> <p>At the site the Contractor shall take appropriate provisions to assure that bitumen may not enter into dry or running stream beds or channels nor may it be disposed of in ditches or any waste disposal site. The bitumen storage and mixing area must be effectively protected against spill.</p>			Contractor	Contractor	
	Material transport <i>Asphalt</i> (Dust, fumes) <i>Sand & Gravel</i> (Dust)	<ul style="list-style-type: none"> - Cover truck load - Wet or cover truck load <p>Establish a dust control program: In the vicinity of settlements or where the local population might be affected through material transport the contractor will be required to regularly water haul routes. This will also apply to temporary access routes to aggregate sites. For these areas the contractor will prepare a spraying schedule which is the basis of the dust</p>			Truck operator	Truck operator	To be specified and made a separate priced item in bidding documents

	Impediment of surface water quality	<p>control program. Trucks shall be covered to minimize dust and material spillage.</p> <p>In the vicinity of settlements material transport will be restricted to between 7.00h to 21.00h hours within a 500 m distance of the adjoining settlements</p> <ul style="list-style-type: none"> - The contractor will take all necessary measures to prevent earthworks and stone works related to road construction from impeding the flow of rivers/ streams and canals or existing irrigation and drainage systems; - Disposal of wastes, materials, as well as filling and parking of vehicles is restricted within 100 m of water drainage zones; - Washing of vehicles or any equipment in the Collector or any other temporary ponds will be strictly forbidden. The contractor shall instruct his workforce accordingly. 					
Contractor	Air pollution from improper maintenance of equipment	Maintain construction equipment to good standard; improper functioning machinery that causes excessive pollution will be banned from the construction sites.			Contractor	Contractor	
	Archaeological chance finds	In the event of the unexpected discovery of archaeological objects the			Contractor	Contractor	Requirements concerning

		Contractor should immediately notify local and archaeological authorities and follow their directions. Construction works would be stopped and the appropriate local executive authority would be immediately informed. Works will resume only after appropriate measures have been taken as requested by the appropriate authority, and confirmation has been received from them that works may continue.					measures in case of chance finds the bidding documents for civil works
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MONITORING PLAN

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored?	When is the parameter to be monitored? Frequency	Cost ¹⁴		Responsibility	
					Install	Operate	Install	Operate
Construction phase								
Traffic safety Safety during construction	Existence of traffic management plan; traffic patterns	At and near job site	Inspection; Observation; Comparison with Contractor's method statement	Before works start and once a week at peak and non-peak periods; during construction period once per week in			N.A.	Supervision Contractor
Safety outside	Visibility and	At and near job site						

¹⁴ Costs for all foreseen actions for monitoring will be included in road-specific EMPs.

working hours (night)	appropriateness			the evening / in the dark				
Top soil preservation	Stockpiling and means of protection	Job site	Inspection; Observation;	Upon preparation of the construction site, after stockpiling and after completion of works on shoulders			N.A.	Supervision Contractor
Equipment servicing and fuelling		Contractor's yard	Inspection; Observation;	Unannounced inspections during construction			N.A.	Supervision Contractor
Worker's safety and health	Availability of appropriate personal protective equipment organization of traffic on the construction site	Job site and worker's camp	Inspection; Interviews; comparisons with the Contractor's method statement	Unannounced inspections during construction and upon complaint			N.A.	Supervision Contractor
Material supply								
Asphalt plant	possession of official approval or valid operation license	Asphalt plant	Inspection;	Before work begins			plant operator	plant operator
Stone quarry	possession of official approval or valid operation license	Stone quarry	Inspection;	Before work begins			quarry operator	quarry operator
Sand and gravel borrow pit	possession of official approval or valid operation license	Sand and gravel borrow pit	Inspection;	Before work begins			Borrow pit operator	Borrow pit operator

Material transport	Compliance with the Contractor's method statement (restricted working hours; haul routes)	Job site / haul routes	Supervision	Unannounced inspections during work			N.A.	Supervision Contractor
Asphalt								
Stone	dust suppression methods where required	Job site / haul routes	Supervision spot checks	Unannounced inspections during work			N.A.	Supervision Contractor
Sand and gravel		Job site / haul routes	Supervision	Unannounced inspections during work			N.A.	Supervision Contractor
Surface water protection	Contractor's compliance with his approved method statement		Inspection	Unannounced inspections during work			N.A.	Supervision Contractor
Air pollution from improper maintenance of equipment								
Asphalt plant	exhaust fumes, dust	at site	visual inspection	Unannounced inspections during work			N.A.	Supervision Contractor
Machinery	exhaust fumes, dust	at site	visual inspection				N.A.	Supervision Contractor

The Environmental Monitoring Plan prepared and implemented during the construction phase should be expanded based on that experience. The monitoring plan for the operational phase should also include monitoring post-construction during the first year of operation so that action may be taken if any detrimental effects occur.

ANNEX 5

Content of Environmental Impact Assessment Report (EIA Report)¹⁵

¹⁵ The content is according to Macedonian legislation – Law on environment and Rulebook on the form and content of EIA report according to the activities for which an EIA report is prepared, and according to the activities which are performed by the entities, and scope of activities and the activities carried out by legal/physical entities and procedure for their approval, and the manner of keeping the register of approved EIA reports (“OG of RM” no 44/13).

- 1. BASIC DATA**
- 2. TYPE OF ELABORATE**
- 3. AUTHORITY RESPONSIBLE FOR APPROVING THE ELABORATE FOR ENVIRONMENTAL PROTECTION**
- 4. DESCRIPTION OF THE PROJECT**
 - 4.1 DESCRIPTION OF LOCATION
 - 4.2 TECHNICAL AND TECHNOLOGICAL DESCRIPTION OF THE ACTIVITIES
 - 4.3 RAW AND AUXILIARY MATERIALS
- 5. DESCRIPTION OF THE ENVIRONMENT AROUND THE LOCATION OF THE PROJECT**
 - 5.1 DESCRIPTION OF THE EXISTING INSTITUTIONS AND/OR FACILITIES PERFORMING HEALTH, SOCIAL AND EDUCATIONAL ACTIVITIES
 - 5.2 GEOLOGICAL, HYDROGEOLOGICAL, GEOMORPHOLOGICAL AND PEDOLOGICAL FEATURES OF THE LOCATION
 - 5.2.1 *Geological features*
 - 5.2.2 *Basic hydro-geological terrain characteristics*
 - 5.2.3 *Engineering-geological types of rock masses*
 - 5.2.4 *Features of the location*
 - 5.2.5 *Features of the landscape*
 - 5.3 EXISTING WATER RESOURCES
 - 5.4 CLIMATE FEATURES OF THE AREA
 - 5.5 EXISTING ROAD AND UTILITY INFRASTRUCTURE
 - 5.6 BIODIVERSITY (FLORA AND FAUNA) IN THE PROJECT AREA AND EXISTENCE OF PROTECTED AREAS
- 6. IMPACT OF THE PROJECT ACTIVITIES ON ENVIRONMENT**
 - 6.1 EMISSIONS
 - 6.1.1 *Emission into the air*
 - 6.1.2 *Emission into water*
 - 6.2 WASTE GENERATION
 - 6.3 EMISSION INTO SOIL
 - 6.4 NOISE, VIBRATION AND NON-IONIZING RADIATION
 - 6.5 BIODIVERSITY (FLORA AND FAUNA)
 - 6.6 SOCIO – ECONOMIC IMPACTS
- 7. PROGRAMME FOR ENVIRONMENTAL PROTECTION**
 - 7.1 MEASURES FOR REDUCTION OF AIR EMISSIONS
 - 7.2 MEASURES FOR PROTECTION OF WATER POLLUTION
 - 7.3 MEASURES FOR IMPROVEMENT OF WASTE MANAGEMENT
 - 7.4 MEASURES FOR SOIL PROTECTION
 - 7.5 MEASURES FOR PROTECTION FROM NOISE AND VIBRATIONS
 - 7.6 MEASURES FOR REDUCTION OF IMPACTS ON BIODIVERSITY
 - 7.7 RISK MANAGEMENT (OCCURRENCE OF DISASTER, ACCIDENT OR EMERGENCY SITUATIONS)
 - 7.8 MITIGATION MEASURES FOR MITIGATION IMPACTS IN SOCIAL ENVIRONMENT
- 8. LEGISLATION**
- 9. CONCLUSION**
- 10. STATEMENT**

ANNEX 6

REPORTING FORMAT BY PESR TO WB

PESR will submit regular progress reports on a quarterly basis to WB. The progress report will include an environmental section with the following suggested format:

(a) Executive Summary: Brief description of progress made and the next steps (no more than 2 pages);

(b) Status: For each sub-project, the following will be included

- * status of the environmental screening process - sub-project classification as per the environmental categories;

- * status on the preparation of the ESARs and EMPs, including the public consultations and the authorization to start construction from related local and environmental authorities;

- * status on the public disclosure of the ESARs and EMPs, as per the environmental framework;

- * status of environmental permits required by each sub-project during construction phase;

- * details of any reported incidents of non-compliance with applicable environmental permits including any fines imposed;

- * details of any public complaints, coverage in the media or interaction with environmental groups.

(c) Next Steps: This will include

- * upcoming key actions to be undertaken by PESR, MoEPP and WB;

- * suggestions to streamline the process, under the applicable policies; and

- * Technical Assistance proposed by PESR to WB.

ANNEX 7

Organization chart of PESR and work duties of the Environmental Protection and Social Aspects Unit (EPSAU)

Unit for Environmental Protection and Social Aspects

Head of Department for Environmental and Social Aspects

Working Duties:

- Managing the department, organizes, directs and coordinates the activities in the department and it's responsible for timely and lawful execution;
- Assigns tasks duties of executors in the department, gives them directions for their execution, control and supervision over the execution of the works;
- Determines the necessity for preparation of the project documentation for construction, reconstruction and rehabilitation of roads in the area of assessing the impact on the environment and the social aspects;
- Participate in the preparation of project programs for preparation of investment-technical documentation for the construction, reconstruction and rehabilitation of the roads in the area of assessing the impact on the environment and the social aspects;
- Prepares project programs and / or technical specifications for completion the Strategic impact assessment, Studies for assessment of the environmental impact (EIA studies), Studies for environmental protection and other documents related to the field of the environment;
- Coordinates the activities for the preparation and realization of the Annual program in the section of assessing the impact on the Environment and the social aspects.
- Participate in the preparation of tender documentation in the field of design, and collaboration with other departments and the Department of Public Procurement, in the section for assessment of the influences on the environment and the social aspects.
- Coordinate the process of impact assessment on projects from environmental aspect and social aspects in accordance with the Law on Environment;
- Review and give opinion on Strategic evaluations, studies for environmental protection;
- Participate in the public hearings to assess the impact of projects on the environment and the implementation of strategic impact assessment;
- Submit requirements for obtaining approval from the Ministry of Environment and Physical Planning (MEPP) associated with the assessment of the environmental impact;
- Control and participate in conducting of the implementation procedure of laws and bylaws from the environmental department;
- Coordinates the preparation of the internal procedures and guidelines from the field of environment and the social aspects;

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- Participate in the preparation of information intended to the Government, Ministries and other institutions related with the environment;
 - Taking care for properly fulfillment of the contracts for Strategic assessment, studies for the Environmental Impact Assessment (EIA) and other documents from this field;
 - Coordinates and controls the tasks signed for the consultants who pursue contracts for strategic impact assessment, studies for assessing the environmental impact, and other documents from this field.
 - Perform field inspection on the implementation of Environmental plans and measures to reduce the environmental impact during the construction, reconstruction, and rehabilitation of roads;
 - Submit requests for obtaining approvals from the field of environmental protection (water management approvals, approvals for logging, reforestation, etc.)
 - Submit a request for approval on the conditions for spatial planning and infrastructure projects;
 - Coordinate the process of cooperation with international financial institutions and the European Union in the documents related to environmental and social aspects;
 - Review and submit information for the website of the department in connection with the events and documents related with the department work;
 - Taking care for professional development, working discipline of the employees in the department and evaluation of their work;
 - With his signature he is responsible for the legitimacy of this department;
 - Performs other tasks according their nature and their scope, and completes tasks under the supervised authority;
 - The responsible person for his work it's the Head of the department;

Number of executors: 1

Title of the job position: Adviser for Environmental Protection

Working Duties:

- Participate in the preparation of project programs for preparation of investment-technical documentation for the construction, reconstruction and rehabilitation of the roads in the area of assessing the impact on the environment and the social aspects;
- Prepares project programs and / or technical specifications for completion the Strategic impact assessment, Studies for assessment of the environmental impact (EIA studies),

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Studies for environmental protection and other documents related to the field of the environment;

- Coordinates the activities for the preparation and realization of the Annual program in the section of assessing the impact on the Environment and the social aspects.
- Participate in the preparation of tender documentation in the field of design, and collaboration with other departments and the Department of Public Procurement, in the section for assessment of the influences on the environment and the social aspects.
- Coordinate the process of impact assessment on projects from environmental aspect and social aspects in accordance with the Law on Environment;
- Review and give opinion on Strategic evaluations, studies for environmental protection;
- Submit requirements for obtaining approval from the Ministry of Environment and Physical Planning (MEPP) associated with the assessment of the environmental impact;
- Control and participate in conducting of the implementation procedure of laws and bylaws from the environmental department;
- Coordinates the preparation of the internal procedures and guidelines from the field of environment and the social aspects;
- Participate in the preparation of information intended to the Government, Ministries and other institutions related with the environment;
- Taking care for properly fulfillment of the contracts for Strategic assessment, studies for the Environmental Impact Assessment (EIA) and other documents from this field;
- Coordinates and controls the tasks signed for the consultants who pursue contracts for strategic impact assessment, studies for assessing the environmental impact, and other documents from this field.
- Participate in the public hearings to assess the impact of projects on the environment and the implementation of strategic impact assessment;
- Perform field inspection on the implementation of Environmental plans and measures to reduce the environmental impact during the construction, reconstruction, and rehabilitation of roads;
- Submit requests for obtaining approvals from the field of environmental protection (water management approvals, approvals for logging, reforestation, etc.)
- Submit a request for approval on the conditions for spatial planning and infrastructure projects;
- Coordinate the process of cooperation with international financial institutions and the

European Union in the documents related to environmental and social aspects;

- Review and submit information for the website of the department in connection with the events and documents related with the department work;
- Taking care for professional development, working discipline of the employees in the department and evaluation of their work;
- Performs other tasks according their nature and their scope, and completes tasks under the supervised authority;

Number of executors: 2

Title of the job position: Associate for Environmental Protection

Working Duties:

- assist during the preparation of Project Programme and/or technical specifications for preparation of strategic impact assessment, environmental impact assessment studies, elaborates for environmental protection and other relevant documents in the field;
- assist in preparation of tendering documentation in the field of design, in collaboration with other sectors and with the department for public procurement, in the part of environmental impact assessment;
- participate in the procedure for environmental impact assessment according to the Law on environment;
- assist with the preparation of the requests for obtaining a license by the Ministry of environment and physical planning associated with environmental impact assessment;
- assist with the preparation of internal procedures and Guidelines in the field of environmental protection;
- assist with the preparation of information for Macedonian Government, the Ministry and other relevant institutions;
- take care for fulfill the contracts for which is in charge for preparation of strategic impact assessment, environmental impact assessment studies, elaborates for environmental protection and other relevant documents;
- coordinate and controls the work of consultants that are performing the contracts for which is in charge for preparation of strategic impact assessment, environmental impact assessment, elaborates for environmental protection and other relevant documents;
- participate in public debates for environmental impact assessment and during the conduction of strategic impact assessment;
- perform field inspections for conduction of Environmental Plans and measures for reduction

on environmental impacts during construction, reconstruction and rehabilitation of roads;

- assist in preparation of requests for obtaining Permit/approvals in the field of environmental protection (water approval, approval for deforestation, reforestation etc.);
- assist with the preparation of request for obtaining Permit for the conditions for spatial planning for Infrastructure projects;
- keep evidence of the Contracts from its field for which is in charge and for the subjects with which works;
- assists during the preparation of information's for the web page of the department regarding events and documents relating with the work;
- compiling the documentation which is forming in the department;
- performs administrative works, reproduction of documentation and technical collating of it;
- for its work directly is responsible to the Head of the Department;
- performs and other works which by their nature are relevant to the workplace and perform other tasks assigned by the supervisor.

Number of executors: 1

Title of the job position: Associate for Social aspects during the conduction of SEA/EIA

Working Duties:

- participate in preparation of project documentation for construction, reconstruction and rehabilitation of roads, in the part of social aspects (population affected and etc.) during the conduction of strategic impact assessment and environmental impact assessment;
- participate in preparation of Project programs for preparation of investment – technical documentation for construction, reconstruction and rehabilitation of roads, in the part of social aspects (affected population) during the preparation of SEA and EIA procedures;
- participate in preparation of Project Programs and/or technical specifications for preparation of Strategic assessment, environmental impact assessment studies, elaborates for environmental protection and other documents in the field in the part of social aspects (affected population etc.);
- participate in preparation of tendering documentation in the field of design, in collaboration with other Departments and with the Department for public procurement in the part of social aspects (affected population etc.) during the conduction of SEA and EIA procedures;
- participate in the procedure for SEA and EIA in the part of social aspects (affected population)

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during the conduction of SEA and EIA procedures;

- review and give an opinion for strategic assessment, elaborates for environmental protection and studies for environmental protection, in the part of social aspects (affected population etc.);
- submit request for obtaining Permit/Approvals etc., related with social aspects (affected population) during the conduction of SEA and EIA procedures;
- participate in the conduction of the procedures for implementation of laws and bylaws by the field of environmental protection and social aspects;
- participate in preparation of internal procedures and Guidelines in the field of social aspects;
- participate in preparation of information's to the Government of Republic of Macedonia, the Ministry and other institutions in the field of the Department;
- take care of fulfill the contracts for which is charge in the area of its operation;
- coordinate and controls the work of the consultants that are conducting the contracts for which are in charge for preparation of strategic assessment, environmental impact assessment, elaborates for environmental protection and other relevant documents in the field of social aspects (affected population);
- perform field inspections for conduction of Resettlement plans, expropriation, communication with the affected population and other during the construction, reconstruction, rehabilitation of roads;
- cooperate with the International financial institutions and with European Union in the part of the documents which are connected with social aspects (Resettlement plans, Plans involving stakeholders, expropriation, Plan for social measures for reduction of the impacts, public debates etc.);
- keep evidence for the Contracts in its field for which is in charge and for the material of its work;
- participate in public debates for projects for environmental impact assessment and during the conduction of the strategic impact assessment;
- prepare information's for the web page for the department in relation with the public debates and other events and documents related with its work;
- performs other work which by their nature are under the scope of workplace and perform tasks assigned by the supervisor;
- for its work directly is responsible to the Head of the Department;

Number of executors: 1

