

**Fund for Innovation and Technological
Development
and
Ministry of Education and Science**

**SKILLS DEVELOPMENT AND INNOVATION
SUPPORT PROJECT**

**ENVIRONMENTAL MANAGEMENT FRAMEWORK
September , 2013**

September , 2013

OVERVIEW

This Environmental Management Framework (EMF) describes procedures that the Skills Development and Innovation Support (SDIS) Project and the Fund for Innovation and Technological Development (FITD) will have in place during implementation of the SDIS Project in order to meet requirements of the World Bank Safeguard Policy OP/BP 4.01 'Environmental Assessment' (EA) and ensure adequate addressing of the environmental issues as may become necessary in the course of project implementation. The purpose of this framework is to outline Fund for Innovation and Technological Development policies and processes to be followed by the Fund for Innovation and Technological Development and establish beneficiaries' obligations in screening and categorizing proposed activities according to their possible environmental impact, mitigating the risks, and defining FITD monitoring activities, if and where required.

Project Description

The SDIS Project Development Objective is to advance the country's systems supporting the key areas of knowledge economy by (i) strengthening the quality assurance and efficiency of financing in higher education, (ii) improving the quality of technical vocational education and training and its relevance for the labor market needs; (iii) helping operationalize the emerging Innovation Fund with financial instruments and capacity to support firms and research organizations to invest in innovation-led projects.

The main environmental concern deals with the grant programs under Component 2 and Component 3 of the Project, which will support the development of new or significantly improved technologies, products and processes to be determined during the project implementation. It is proposed that these grants will be administered by the FITD.

A. Project Components

Component 2: Modernization of Secondary Technical Vocational Education and Training

This component will provide technical and financial assistance to the development of a more modern and efficient secondary TVET system that is characterized by delayed diversification, increased relevance of the standards and curriculum for the labor market and improved mechanisms for school-industry collaboration. These changes are expected to lead to the transformation of the secondary TVET from the narrow occupational to a more general and broader technical education and to result in greater labor market relevance and transferability of skills, and increased flexibility in secondary TVET provision. It consists of two sub-components.

Sub-component 2.1: Quality and labor market relevance of TVET provision. This sub-component will improve capacity of TVET secondary schools to deliver quality TVET relevant to the demands of the labor market. Specifically, this sub-component would finance: (i) technical assistance to support the development of an overarching model for secondary TVET provision; (ii) development of occupational standards, competency-based curriculum

and programs, (iii) teacher training, including identification of the skills which are required of teachers and other staff development of a training program and training materials and rollout of the training program and (iv) need analysis and procurement of equipment for school-based practical training.

Sub-component 2.2: Grants for school-industry collaboration. This subcomponent would finance technical assistance activities aimed at designing and running the grant program for supporting joint projects among TVET schools and industrial enterprises. The grant program will support projects which improve practical relevance of vocational education and training by involving industries into the practical training delivery.

Component 3: Improving the innovative capacity of enterprises and collaboration with research organizations

This component is focused on supporting the efforts of the Macedonia Fund for Innovation and Technological Development to build the institutional capacity to stimulate innovative activities, and piloting financial instruments to support innovation and technological development in the enterprise sector. It is organized around two sub-components.

Sub-component 3.1: Capacity Building of the Macedonia Fund for Innovation and Technology Development (FITD). This sub-component would finance, *inter-alia*, technical assistance, training, workshops, and outreach activities required to build up the institutional competence of the FITD to undertake the complex task of running a successful innovation program. In this context, this sub-component will provide support for: (i) planning and designing the programs, strategy, operations and procedures; (ii) training of FITD staff; (iii) selection of the Investment Committee and peer reviewers; (iv) mentoring and training for FITD beneficiary enterprises; and (v) marketing and communications strategy.

Sub-component 3.2: Pilot of Financial Instruments to be delivered by FITD. Once the FITD is established, it would provide specific funding instruments to help foster innovation development in the Macedonia. The instruments to be supported by the project are to span the entire spectrum of firm development timeline and are to include (i) an accelerator; (ii) proof of concept innovation matching grants, including but not limited to IP protection, and business plan preparation for initial capital mobilization; (iii) R&D matching grants; and (iv) sector specific grants in technology development and technology absorption projects for new or improved technologies, products and processes. It is anticipated that the pilot instruments will be introduced in a phase approach starting with the accelerator and proof of concept matching grants.

The screening procedure for Grants Program is based on the WB Environmental Assessment Safeguard Policy (OP/BP/GP 4.01 on Environmental Assessment), WB Pollution Prevention and Abatement Handbook (PPAH) and the relevant laws and by laws of the Republic of Macedonia, mostly the Law on Environment (Official Gazette of the Republic of Macedonia No. 53/2005, 81/2005, 24/2007, 159/2008, 83/2009, 48/10, 124/10, 51/11, 123/12 and

93/2013). The environmental screening procedure outlined in this EMF will become an integrated part of Grants Operational Manual.

The awardees will be required to comply with Macedonian environmental laws and regulations (<http://www.moepp.gov.mk/>).

Component 4: Project Management and Monitoring and Evaluation is mostly technical assistance works, and has no environmental impacts associated with this World Bank executed component.

EXCLUSIONS

The Project has been assigned an environmental category B as per the World Bank Environmental Assessment safeguard policy.

The project will not finance:

- Any activities which would have an irreversible and substantial environmental impact, or correspond to a World Bank Category A project. This means that the Project will not finance activities for which a Full Environmental Impact Assessment is required as per the Law on Environment (Official Gazette of the Republic of Macedonia No. 53/2005, 81/2005, 24/2007, 159/2008, 83/2009, 48/10, 124/10, 51/11, 123/12 and 93/2013)
- Any activities which involve land acquisition or any form of resettlement
- Any of the activities listed in the World Bank Group -IFC Exclusion List
- Any construction and rehabilitation activities, including very small, refurbishment or renovation activities or any scope of civil works

Comprehensive exclusion list is given in Annex A of this EMF.

Independent Environmental Expert, to be engaged through the Project, will be responsible for screening subprojects/grants selected for financing to: (1) ensure compliance with the World Bank Group (IFC) exclusion list, (2) ensure that no subprojects with significant impacts of a Category A type are supported, (3) that subprojects/grants will not necessitate involuntary land acquisition, and (4) that subprojects/grants will not finance any activities which involve land acquisition or any form of resettlement.

ENVIRONMENTAL SCREENING PROCEDURE FOR GRANTS PROGRAM

The procedure is made up of five steps listed below:

- Screening (for all grant applications)
- Disclosure and Public Consultation (in case EMP is required, i.e. for grant applications corresponding to Category II)
- Review and Approval (in case EMP is required, i.e. for grant applications corresponding to Category II)
- Conditionality (in case EMP is required, i.e. for grant applications corresponding to Category II)
- Monitoring and Reporting (in case EMP is required, i.e. for grant applications corresponding to Category II)

Details of procedures required for each of these steps are subsequently described and shown in Annex B.

Screening

Environmental Screening Questionnaire (Annex C) will be required for every project approved for financing and will be part of the project application.

The applicant will be responsible for ensuring that all of the adequate documentation has been submitted and filed, including: (a) all of the RS EA documentation; (b) official approvals for the documentation from responsible authorities for protection of environment, and (c) copies of the environmental permit. The applicants will be responsible to meet all of the legally prescribed requirements and to submit proof of doing so – through the documentation listed above. The incomplete applications will not be considered for financing.

Under the World Bank system, activities will be categorized in accordance with the following three screening categories.

- Category I (Low Risk): grant activities whose environmental impacts are expected to be negligible, for which no environmental evaluation will be required, corresponding to a World Bank Category C.

Category I activities have no further environmental assessment requirements.

- Category II (Intermediate Risk): grant activities with impacts that can be readily identified and standard preventative and/or remedial measures can be prescribed without a full EIA as per the Law on Environment (Official Gazette of the Republic of Macedonia No. 53/2005, 81/2005, 24/2007, 159/2008, 83/2009, 48/10, 124/10, 51/11, 123/12 and 93/2013). Mitigating measures are standard and are usually just good housekeeping or good engineering practice. This category corresponds to World Bank Category B.

- Category III (Not Eligible for Financing): activities which may have potential and highly significant or irreversible environmental impacts, the magnitude which are difficult to determine at the project identification stage (these will probably be identified in the first step) – corresponding to World Bank Category A. In addition, activities which involve resettlement or land acquisition, any type of construction and rehabilitation activities including simple renovation or small construction works, as well as those that include activities on the IFC exclusion list are not eligible for financing.

For grant applications corresponding to Category II (or WB Category B) an Environmental Management Plan (EMP) will be required. The format for a comprehensive EMP is presented in Annex D. The applicant is responsible for preparing the EMP. If the Grant Applicant/Beneficiary refuses to prepare the EMP, the activity/application would be ineligible to access funds from the Project.

If a Request for an Environmental Permit was prepared by the applicant to meet Macedonian Environmental Assessment requirements this documentation should be used to prepare the EMP. The Independent Environmental Expert, to be engaged through the project, should check the Request and the EMP to insure, as a minimum, consistency in terms of: (a) identifying the same priority environmental issues, mitigating measures and implementing responsibility, (b) monitoring program, (c) institutional arrangements for environmental management.

Disclosure and Public Consultation

The Grant Applicant/Recipient is responsible for disclosing the EMP (both the draft EMP used for consultations and the final EMP revised following comments received during consultations) in a public place (library, municipal or government building etc.) near the project site and on the enterprise website, and place a notification in the local media (e.g. newspaper) as to where the EMP may be viewed, with a suitable feedback mechanism in place for comments or queries (both on-line and hard copy). Data on where and how the EMP was disclosed should be a part of the Final EMP.

Within the Skills Development and Innovation Support Project the grant funds will be provided for innovation purposes. Innovation and technological development are very sensitive issues with regards to disclosure of details related to the processes and activities involved. As such, the Grant Applicant/Recipient reserves the right to abbreviate the EMP in a manner where information disclosed will not give away any of the confidential information related to the innovation process itself but will sufficiently explain how the financed activities will mitigate any of the associated environmental impacts. Due to the nature of the Project, the Grant Applicant may not be required to hold a public consultation meeting, if the disclosed EMP on a website provides for an adequate feedback mechanism for comments or queries.

Review and Approval

The Independent Environmental Expert, to be engaged through the Project, is responsible for the preliminary screening of the proposed grant, or for checking the screening questionnaire already filled in by the applicant. The FITD will transfer this obligation to the Independent Environmental Expert, to be engaged through the Project, for review of the Checklist and for review of the EMP forms. The FITD does not bear any liability for information that may be untruthfully and intentionally provided by the applicant.

The Independent Environmental Expert, to be engaged through the Project will also be responsible for reviewing and approving the EMP.

Conditionality

The FITD will include Grant Applicant/Recipient commitment to obey requirements set forth in the EMP into the respective grant agreement for category 2 applications. The Grant Applicant/Recipient will be required to show best effort to ensure that the funded activity is carried out with attention to good environmental management. The Applicant/Recipient will be held responsible for all mitigation measures that have been listed in the EMP.

Monitoring and reporting

As part of normal monitoring activities the FITD and the Independent Environmental Expert, to be engaged through the Project will perform desk and field-based monitoring functions to assure compliance by the grant recipients with overall and environmental obligations specified in the grant agreement. The performance reports will contain details on supervision of potential environmental impacts and report on implementation of EMPs for all of the grants that were required to prepare an EMP. Through this report the FITD and the Independent Environmental Expert, to be engaged through the Project will verify whether or not environmental requirements as detailed in the grant agreement have been met. If requirements have not been met, the FITD will provide recommendations for further action to insure compliance. Depending on the severity of a compliance failure, the FITD may terminate the project financing.

PUBLIC CONSULTATION DETAILS AND MINUTES OF MEETINGS FOR THE ENVIRONMENTAL MANAGEMENT FRAMEWORK (ENCLOSED AS ANNEX F)

Final version of the EMF will contain:

- Manner in which notification of the consultation was announced: media(s) used, date(s), description or copy of the announcement
- Date(s) consultation(s) was (were) held
- Location(s) consultation(s) was (were) held
- Who was specifically invited (Name, Organization or Occupation, Telephone/Fax/e mail/number/address (home and/or office))
- List of Attendees (Name, organization or occupation, contact details)
- Meeting Agenda
- Summary Meeting Minutes (Comments, Questions and Response by Presenters)
- List of decisions reached, and any actions agreed upon with schedules and deadlines and responsibilities.

ANNEX A

EXCLUSIONS

IFC Exclusion List:

- Production or trade in any product or activity deemed illegal under host country law or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, polychlorinated biphenyls (PCBs), wildlife or products regulated under CITES
- Production or trade in weapons or munitions
- Production or trade in alcoholic beverages (excluding beer and wine)
- Production or trade in tobacco
- Gambling, casinos, and equivalent enterprises
- Production or trade in radioactive materials (this does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where the IFC considers the radioactive source to be trivial and/or adequately shielded)
- Production or trade in unbounded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km in length
- Production or activities involving harmful or exploitive forms of forced labor/harmful child labor
- Commercial logging operations for use in primary tropical moist forest
- Production or trade in wood or other forestry products other than from sustainably managed forests
- Production or activities involving harmful or exploitive forms of forced labor/harmful child labor
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals (includes gasoline, kerosene, and other petroleum products)
- Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such peoples

MACEDONIAN LEGISLATION – “LIST FOR WHICH FULL EIA IS MANDATORY”

1. Crude-oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.
2. Thermal power stations and other combustion installations with a heat output of 300 megawatts or more.
3. (a) Installations designed: - for the processing of high-level radioactive waste, - solely for the final disposal of radioactive waste, - solely for the storage (planned for more than 10 years) of irradiated nuclear fuels or radioactive waste in a different site than the production site.
4. Integrated works for the initial smelting of cast-iron and steel; - Installations for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes.
5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20 000 tonnes of finished products, for friction material, with an annual production of more than 50 tonnes of finished products, and for other uses of asbestos, utilization of more than 200 tonnes per year.
6. Integrated chemical installations, i.e. those installations for the manufacture on an industrial scale of substances using chemical conversion processes, in which several units are juxtaposed and are functionally linked to one another and which are: (i) for the production of basic organic chemicals; (ii) for the production of basic inorganic chemicals; (iii) for the production of phosphorous-, nitrogen- or potassium-based fertilizers (simple or compound fertilizers); (iv) for the production of basic plant health products and of biocides; (v) for the production of basic pharmaceutical products using a chemical or biological process; (vi) for the production of explosives.
7. (a) Construction of lines for long-distance railway traffic and of airports (1) with a basic runway length of 2 100 m or more; (b) Construction of motorways and express roads (2); (c) Construction of a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be 10 km or more in a continuous length.
8. Waste disposal installations for the incineration and chemical treatment.
9. Groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic meters.

<p>10. (a) Works for the transfer of water resources between river basins where this transfer aims at preventing possible shortages of water and where the amount of water transferred exceeds 100 million cubic meters/year;</p> <p>(b) In all other cases, works for the transfer of water resources between river basins where the multi-annual average flow of the basin of abstraction exceeds 300 million cubic metres/year and where the amount of water transferred exceeds 10 % of this flow. In both cases transfers of piped drinking water are excluded.</p>
11. Waste water treatment plants with a capacity exceeding 100 000 population.
12. Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres.
13. Pipelines for the transport of gas, oil or chemicals with a diameter of more than 800 mm and a length of more than 40 km.
<p>14. Installations for the intensive rearing of poultry or pigs with more than:</p> <p>(a) 85 000 places for broilers, 40 000 places for hens;</p> <p>(b) 2 000 places for production pigs (over 30 kg); or</p> <p>(c) 700 places for sows.</p>
<p>15. Industrial plants for the</p> <p>(a) production of pulp from timber or similar fibrous materials;</p> <p>(b) production of paper and board with a production capacity exceeding 200 tonnes per day.</p>
16. Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction, where the surface of the site exceeds 150 hectares.
17. Construction of overhead electrical power lines with a voltage of 110 kW or more and a length of more than 15 km.
18. Installations for storage of petroleum, petrochemical, or chemical products with a capacity of 200 000 tonnes or more.
19. Introduction of new species.

ANNEX B

Environmental Screening Procedure under the Project

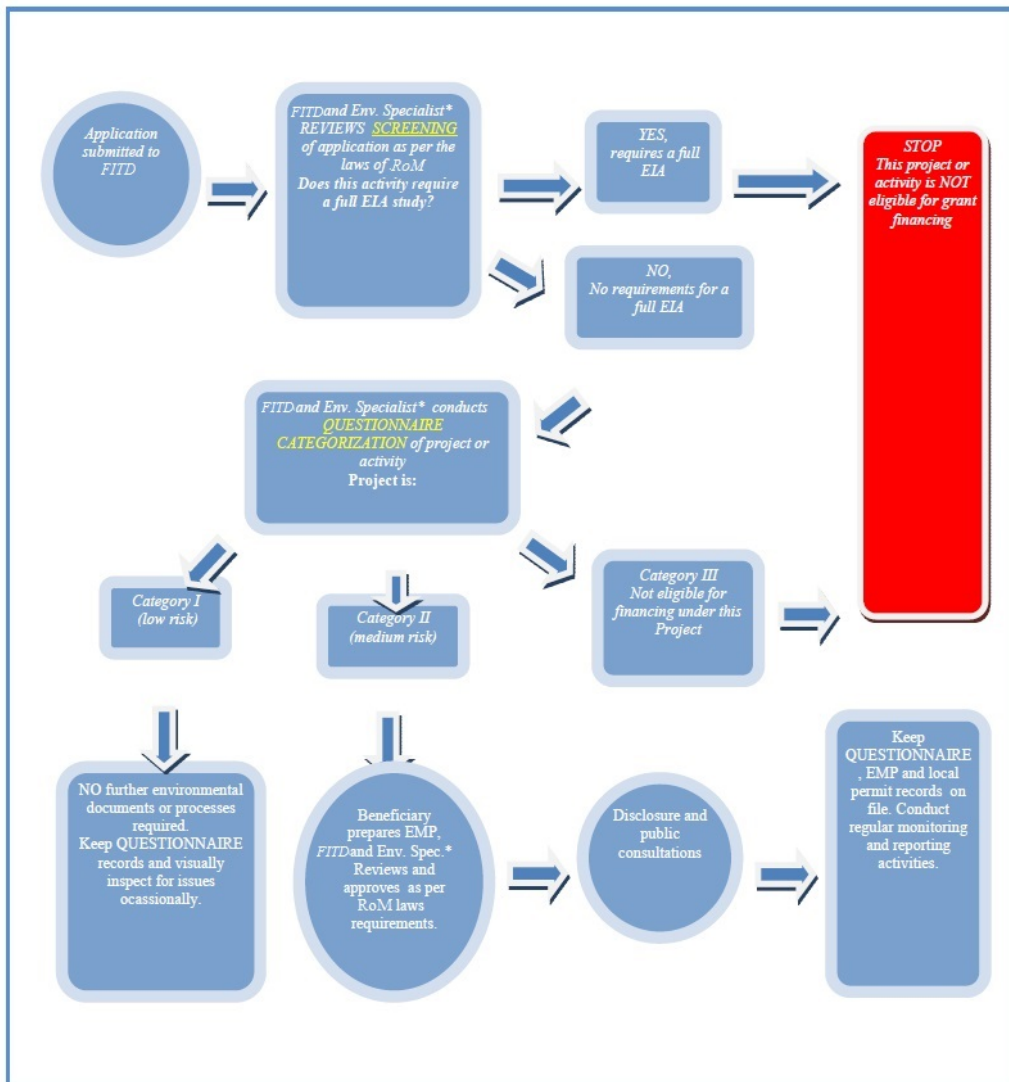


Figure 1: Environmental Screening Procedure under the Project

*Independent Environmental Expert, to be engaged through the Project

ANNEX C

GRANT ACTIVITY ENVIRONMENTAL SCREENING QUESTIONNAIRE

Name of Project (Reference number):		
City/Municipality:		
Name of applicant:		
Contact:		
ENVIRONMENTAL AND SOCIAL CHECKLIST QUESTIONNAIRE (must be filled out and filed for every application)		
CRITERIA	YES	NO
Does the proposed activity require a FULL Environmental Impact Assessment as per the Macedonian Law on Environmental Impact Assessment (list of projects for which full EIA is mandatory)? If yes, this activity cannot be financed.		
Does the existing enterprise have valid operating permit, licenses, approvals etc.? If not, please explain. Permits to screen for include: construction permit, operational/use permit, urbanistic permit, water management permit...		
If not, will the grant financing be used to correct this condition?		
Does the existing enterprises have a valid environmental permit (or is in the procedure of obtaining an environmental permit as per the Macedonian laws) and does the proposed activity fall under those for which this permit was issued?		
Does the existing enterprise have a valid water management permit that calls for special investments or measures for the enterprise's wastewater releases (or is in the procedure of obtaining this permit as per the Macedonian laws)?		
Does the existing need to follow specific Macedonian environmental regulations regarding air emissions, water use or wastewater discharge and solid waste management?		
Are there any significant outstanding environmental fees, fines or penalties or any other environmental liabilities (e.g. pending legal proceedings involving environmental issues etc.) <i>If so, will the grant financing be used to correct this condition and please explain?</i>		
Have there been any complaints raised by local affected people or groups or NGOs regarding conditions at the facility? <i>If so, will the grant financing be used to remedy these complaints?</i>		
Proposed Activity		
Will the activity generate water effluents (wastewater) that may require special treatment, control or the water management permit?		
Will the activity air emissions which would require special controls in order to ensure compliance with the Macedonian standards?		
Will the activity generate noise levels that would require control measures to ensure compliance with the Macedonian standards?		
Will the noise levels impact particularly sensitive receptors (natural habitats, hospitals, schools,		

local population centers)		
Will the activity consume, use or store, produce hazardous materials that: <ul style="list-style-type: none"> • require special permits or licenses • require licensed or trained personnel • are outlawed or banned in EU or Western countries • are difficult, expensive, or hard to manage • are inconsistent with PPAH recommendations • may cause soil and water pollution or health hazards if adequate control measures are not in place 		
Will the activity generate solid waste that may be considered hazardous, difficult to manage, or may be beyond the scope of regular household waste? <i>(This may include, but not be limited too, animal carcasses, toxic materials, pesticides, medical waste, cleaning materials, flammables etc.)</i>		
Will the activity be located within or close to officially protected areas or areas under		

The applicant, in signing this form proves that the grant activity will not involve land acquisition, any form of construction, or will promote any activities on the World Bank Group IFC exclusion list. In addition, the applicant is aware of the EIA requirements as per the Macedonian Law and certifies that there are no Full Environmental Impact Assessment reports required.

Form filled out by (Applicant):	
Date:	
Name:	
Title:	
Sign:	
Stamp:	

Form checked by (Independent Environmental Expert):	
Date:	
Name:	
Title:	
Sign:	

ANNEX D

ENVIRONMENTAL MANAGEMENT PLAN FORMAT

I. MITIGATION PLAN

Phase	Issue	Mitigating Measure	Cost of Mitigation (If Substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Construction	<ul style="list-style-type: none">•••••				
Operation	<ul style="list-style-type: none">•••••				

*Items indicated to be the responsibility of the contractor shall be specified in the bid documents

II. MONITORING PLAN

Phase	What <i>parameter is to be monitored?</i>	Where <i>is the parameter to be monitored?</i>	How <i>is the parameter to be monitored/ type of monitoring equipment?</i>	When <i>is the parameter to be monitored- frequency of measurement or continuous?</i>	Monitoring Cost <i>What is the cost of equipment or contractor charges to perform monitoring?</i>	Responsibility	Supervision observation and comments <i>(to be filled out during supervision with reference to adequate measuring reports)</i>
Construct							
Operate							

ANNEX E

SAMPLE ENVIRONMENTAL MANAGEMENT PLAN EXAMPLE ONLY USE OF SOLAR PANELS IN ELECTRICAL POWER PRODUCTION

Phase	Issue	Mitigating Measure	Cost of Mitigation (If Substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Design phase	Certain solar cells may require more energy and raw materials to produce, or may use hazardous and harmful materials in their production	Obtain sufficient information from producer Look for certificates or statements how the panels are produced Select the more "environmentally friendly option"	Variation in costs of panels may be incurred	The Grant recipient	
Design phase	Placement of solar panels on rooftops or buildings in populated areas may have an aesthetic impact or may impact a monument or protected building	Careful siting of the panels Ensure that the building is not a historical site, that there are no special instructions as to the facade and appearance, ensure all relevant authorities have been notified and their advice sought	N/A	The Grant recipient	
Design phase	Placement of solar panels in natural areas needs to be carefully designed in order to minimize the aesthetic impact and land disturbance, including impacts from high temperature or magnetic fields from the panels/wiring	Ideally the solar panels would be placed in a remote area that is barren and not under use of any kind. In addition, the site would not be close to any protected areas, grazing lands or important habitats as well as sensitive recipients /groundwater, surface water	This may have an impact on the overall design of the project and may therefore incur some additional costs	The Grant recipient	
Construction	Dust, noise, emissions and vibrations generated during construction activities may be a nuisance to nearby human or animal populations	Try to limit noise and works to intervals Do not allow machinery to idle Water down working areas to limit dust generation	Minor Cost of water tank to come on site: 150-250 □	Contractor /Grant recipient	
Construction	Leaks or spills from machinery may negatively impact the soil and groundwater	Spill control mechanism will be in place Machinery used will not be serviced or repaired on site	Minor	Contractor /Grant recipient	
Phase	Issue	Mitigating Measure	Cost of Mitigation (If Substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Construction	Improper waste management may pollute the environment and pose a threat to the animals in the vicinity of the site	Ensure rapid collection of wastes to avoid scattering All wastes generated will be disposed of at an authorized landfill site There will be no open burning of wastes	Disposal at an authorized site for 1 ton (with 50 km transport): 150 □	Contractor /Grant recipient	

Operation	Use of pesticides or other hazardous chemicals to treat or to clean the solar panels will impact the surrounding environment	Use compounds that are environmentally friendly Ensure no leaks on the surrounding areas Proper storage of chemicals on leak-proof surfaces and use only by trained professional staff	May impose additional costs for more expensive eco solutions	Contractor /Grant recipient	
Decommissioning	Hazardous materials contained within the panels may be released into the nature and impact the environment (soil, ground and surface water) in case of breaks or decommissioning of the panels	Ensure workers are trained in adequate decommissioning procedures with spill control measures in place	Not significant	Contractor /Grant recipient	

*Items indicated to be the responsibility of the contractor shall be specified in the bid documents

II. MONITORING PLAN

Phase	What <i>parameter is to be monitored?</i>	Where <i>is the parameter to be monitored?</i>	How <i>is the parameter to be monitored/ type of monitoring equipment?</i>	When <i>is the parameter to be monitored- frequency of measurement or continuous?</i>	Monitoring Cost <i>What is the cost of equipment or contractor charges to perform monitoring?</i>	Responsibility	Supervision observation and comments <i>(to be filled out during supervision with reference to adequate measuring reports)</i>
Design phase	Environmentally friendly production process of panels	Through tech. specifications of panels	Through receiving and keeping all specifications	Prior to procurement	May have an overall cost increase effect	Grant recipient	
Design phase	Placement of solar panels needs to be approved by the designated and responsible local authority	Through adequate supporting paperwork	Through receiving and keeping all of the necessary permits	Prior to construction works and preferably prior to application for grants	None	Grant recipient	
Construction	Dust, noise, emissions and vibrations	On project site	Visually, through complaints (if area is populated) and per local permitting	During construction works constantly	Minor-should be included in contract for works	Contractor /Supervisor	
Construction	Leaks or spills from machinery	On project site	Visually on surrounding areas, log of all accidents on site to be filled out	During construction works -constantly	Minor-should be included in contract for works	Contractor /Supervisor	
Construction	Proper waste collection and management	On project site	Daily supervision of waste collection	Daily	Minor-should be included in contract for works	Contractor /Supervisor	

Phase	"What parameter is to be monitored?"	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored- frequency of measurement or continuous?	Monitoring Cost <i>What is the cost of equipment or contractor charges to perform monitoring?</i>	Responsibility	Supervision observation and comments (to be filled out during supervision with reference to adequate measuring reports)
			Ensure no open burning is taking place Keep receipts from authorized landfill				
Operation	Use of less hazardous pesticides or other chemicals to treat or to clean the solar panels	On project site	Review of chemicals to be used, safety data sheets reviewed and kept	Visual inspection of site after maintenance Records kept	May have an overall cost increase effect	Operator / grant applicant	
Decommissioning	Hazardous materials contained within the panels may be released during decommissioning	On project site	Ensure no breaks or spills In case of spills ensure spill management procedure is followed	Visual, log of all breaks and spills	Minor-should be included in contract for works	Contractor/decommissioning	

ANNEX F. MINUTES FROM THE PUBLIC DISCLOSURE MEETING ON THE ENVIRONMENTAL MANAGEMENT FRAMEWORK

- Notification about the public disclosure meeting announced on the web site of the Ministry of Education and Science on 13 Sept 2013, www.mon.gov.mk (Enclosure 1).
- Public discussion was held on 16 Sept 2013 at the Ministry of Education and Science of the Republic of Macedonia
- Invite List (Enclosure 2)
- List of Attendees (Enclosure 3)
- Meeting Agenda:
 1. Presentation of Environmental Management Framework
 2. Public discussion
 3. Summary

Presentation of Environmental Management Framework

This Environmental Management Framework (EMF) describes procedures that the Skills Development and Innovation Support (SDIS) Project and the Fund for Innovation and Technological Development (FITD) will have in place during implementation of the SDIS Project in order to meet requirements of the World Bank Safeguard Policy OP/BP 4.01 'Environmental Assessment' (EA) and ensure adequate addressing of the environmental issues as may become necessary in the course of project implementation. The purpose of this framework is to outline Fund for Innovation and Technological Development policies and processes to be followed by the Fund for Innovation and Technological Development and establish beneficiaries' obligations in screening and categorizing proposed activities according to their possible environmental impact, mitigating the risks, and defining FITD monitoring activities, if and where required.

The main environmental concern deals with the grant programs under Component 2 and Component 3 of the Project, which will support the development of new or significantly improved technologies, products and processes to be determined during the project implementation. It is proposed that these grants will be administered by the FITD.

Presentation content:

- Introduction of the project components
- Focus on the project components with possible environmental impact
- Presentation of the FITD
- Presentation of the environmental assessment procedure
- Distinguishing between project environmental categorization in accordance with the World Bank (categories A, B and C) and categorization in accordance with Macedonian legislation (categories 3, 2 and 1)
- Presentation of the annexes included in the Environmental Management Framework

Annex A: Exclusions;
Annex B: Environmental Screening Procedure under the Project;
Annex C: Grant Activity Environmental Screening Questionnaire;
Annex D: Environmental Management Plan Form.

Public discussion

- The public discussion included answers and questions on the EMF procedures, its restrictions and opportunities.
- The discussion was held in form of questions, answers and comments.

A1. Marjan Mihajlov, a representative from Maneco Solutions, asked whether all application that according to Macedonian environmental legislation are categorized as category 3 (high risk) are to be excluded from financing (grant approval) or it is possible to make them eligible for financing if they prepare an environmental assessment study in accordance with Macedonian regulation.

Answer: Such grant application will not be eligible for financing through this Project as defined in the Environmental Management Framework, since they also belong to Category A according to the World Bank system.

A2. Mr.Mihajlov also asked whether the companies that will apply for grants will have to prepare an EMP themselves (if required) and who will help them in doing so.

Answer: The grant applicants will have to prepare the EMPs themselves, but there are a number of private sector consultants specialized and licensed for services in environmental management and voucher schemes who are already helping firms prepare environmental impact assessments and applications and adjustment plans for an integrated environmental permit in accordance with local legislation, and assistance from such consulting firms is available for the grant applicants.

B. Kornelija Radovanovik, a representative from The Regional Environmental Center for Central and Eastern Europe (REC) Office in Macedonia, asked whether activities under component 1 of the project are included in this framework.

Answer: Component 1 activities are not included in the Framework since there is no possibility of environmental impact, due to the fact that this component will focus mainly on quality assurance in higher education, a reform of the financing model for higher education and technical assistance for the development of a National Technology Transfer Office

C1. Emilija Velkovska, a representative from Foundation for Management and Industrial Research (Foundation M.I.R.) wanted to know how the Fund for Innovation and Technological Development will be connected to the World Bank financing.

Answer: The Fund will be a beneficiary of the Project under Component 3, and the funding will be available in order to support the efforts of the Macedonia Fund for Innovation and Technological Development to build the institutional capacity to stimulate innovative activities, and pilot financial instruments (mini grants) to support innovation and technological development in the enterprise sector.

C2. Ms.Velkovska also wanted to know what the grant amounts would be.

Answer: This question is not relevant for the discussion and such information will be available to the public in due time in the project implementation phase.

Conclusion:

The representatives had no objections to the Environmental Management Framework, and did not provide any remarks on its content. All attendees welcomed the new Project and were looking forward to the start of its implementation.

Skopje, 16 Sept 2013

Enclosure 1. Notification about the public disclosure meeting

Република Македонија
Министерство за образование и наука

Пребарување... Барај

Новости - Активности - Линкови

ГЛАВНО МЕНИ

- Насловна
- Министерство
- Конкурси
- Документи
- Прописи
- Екстерно тестирање
- Ранг Листи
- Галерија
- Контакт

Има 163 гости присутни

НАЈНОВИ КОНКУРСИ

Известување за стипендии за странски студенти во Република Турција
5 Sep 2013 | 1:56 pm

КОНКУРС ЗА FULLBRIGHT СТИПЕНДИЈА ЗА ПОСТ-ДОКТОРСКИ СТУДИИ

Покана за презентација на Рамката за заштита на животната средина

Петок, 13 Септември 2013 11:43

Во текот на подготовките на проектот за развој на вештини и поддршка на иновации (Skills Development and Innovation Support Project) за потребите на реализацијата на компонентите 2 и 3 подготвена е рамковна програма за управување со животната средина во согласност со процедурите на Светска банка, Рамка за заштита на животната средина (Environmental Management Framework).

Рамковната програма за управување со животната средина ќе биде достапна за увид на јавноста и коментари од 13.09.2013 до 17.09.2013 година на веб страната на Министерството за образование и наука (www.mon.gov.mk).

Рамка за заштита на животната средина (Македонска верзија).

Environmental Management Framework (English version).

Министерството за образование и наука ги поканува сите заинтересирани страни на 16.09.2013 година во Министерството за образование и наука (ул. Св.Кирил и Методиј бр. 54, Скопје, 8 спрат) со почеток во 10.00 часот каде ќе биде презентирана Рамковната програма за управување со животната средина и каде заинтересираните страни може да ги дадат своите коментари.

Сите прашања и коментари може да бидат проследени на следната адреса:
biljana.trajkovska@mon.gov.mk

Министер
Спиро Ристовски
Министер за образование и наука на Република Македонија

REGISTERED QUALITY ASSURANCE
ISO 9001

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MANAGEMENT SYSTEMS
001

Enclosure 2. Invite List

No.	First and Last Name	Institution	Contact e-mail
1.	Zoran Markov	Faculty of Mechanical Engineering Ss. Cyril and Methodi University - Skopje	zoran.markov@mf.edu.mk
2.	Ana Lazarevska	Faculty of Mechanical Engineering Ss. Cyril and Methodi University - Skopje	ana.lazarevska@mf.edu.mk
3.	Toni Milevski	Faculty of Philosophy Ss. Cyril and Methodius University	toni@zf.ukim.edu.mk
4.	Ordan Cukaliev	Institute of environmental protection, Faculty of Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	Ordan.Cukaliev@zf.ukim.edu.mk
5.	Tatjana Mitkova	Institute of environmental protection, Faculty of Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	tmitkova@zf.ukim.edu.mk
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		Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	
8.	Olga Najdenovska	Institute of environmental protection, Faculty of Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	olganajdenovska @zf.ukim.edu.mk
9.	Marija Vukelik-Sutoska	Institute of environmental protection, Faculty of Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	marijavs@zf.ukim.edu.mk
10.	Vjekoslav Tanaskovic	Institute of environmental protection, Faculty of Agricultural and Food Science, Ss. Cyril and Methodi University - Skopje	vtanaskovic @zf.ukim.edu.mk
11.	Anita Grozdanov	Faculty of Technology and Metallurgy Ss. Cyril and Methodi University - Skopje	anita@tmf.ukim.edu.mk
12.		Federation of Associations of technical culture of Macedonia - National Tech	spatum@atcm.org.mk
13.		Florozon-Center for Environmental Democracy	contact@florozon.org.mk
14.		The Macedonian Center for Energy Efficiency -	macef@macef.org.mk

		MACEF	
15.		Macedonian Green Center (MGC) - for advocacy, lobbying and research for environmental issues	zeleni@zeleni.org.mk
16.		Center for environmental research and information "Eco-sense"	info@ekosvest.com.mk
17.		The Regional Environmental Center for Central and Eastern Europe (REC) Office in Macedonia	rec@rec.org.mk
18.		The Association "Center for promotion of sustainable agricultural practices and rural development"	info@ceprosard.org.mk
19.		Citizenship association "PROAKTIVA" – Skopje	info@proaktiva.org.mk
20.		Movement for the environment "MOLIKA"	molika@t-home.mk
21.		TehnoLab Skopje	tehnolab@tehnolab.com.mk
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29.		Foundation for Management and	mir@mir.org.mk

		Industrial Research (Foundation M.I.R.)	
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Enclosure 3. List of Attendees

No.	First and Last Name	Institution
1.	Emilija Velkovska	Foundation for Management and Industrial Research (Foundation M.I.R.)
2.	Tasko Rizov, MSc.	Faculty of Mechanical Engineering, University Ss. Cyril and Methodius-Skopje
3.	Marjan Mihajlov	Maneco Solutions– Eco consulting
4.	Kornelija Radovanovik	The Regional Environmental Center for Central and Eastern Europe (REC) Office in Macedonia
5.	Ljubomir Ilkov	ICS Group
6.	Keti Trajkovska	Geing Krebs und Kifer
7.	Kiril Pop Tonev	Faculty of Technology and Metallurgy Ss. Cyril and Methodius University - Skopje