Public Disclosure Authorized

Public Disclosure Authorized

Republic of KAZAKHSTAN **E4106**

Ministry of Industry and New Technologies

Energy Efficiency Project

Environmental Management Framework

Astana, January 9, 2013

Contents

Summary

Introduction

I. EMF scope and objectives

II. EA policies, rules and procedures

2.1 National EA legal and institutional framework
2.2 World Bank EA rules and procedures

III. Project Potential Environmental Impacts

IV. Environmental Guidelines

4.1 Mitigation measures
4.2 Subprojects Environmental Screening
4.3 Environment Management Plan Checklist
4.4 Subprojects' EMP Monitoring

V. Implementing arrangements and funding

VI. EMF Disclosure and Public consultation

Annexes

Annex 1. Environmental screening checklist

Annex 2. EMP Checklist

Annex 3. Minutes of the Consultation on the Draft Environmental Management Framework

Summary

1. *Project objective and description.* The proposed Bank project aims to: (i) improving energy efficiency (EE) in public and social facilities; and (ii) creating an enabling environment for sustainable energy financing. Expected key results of the proposed Project include: (i) quantified energy savings achieved from implementation of economically viable EE projects in public and social facilities; and (ii) improved policy and institutional framework for EE to allow sustainable energy financing mechanisms to be developed and launched. The proposed project will consist of two components: (a) development and implementation of demonstration EE projects in public and social facilities; and (b) technical assistance (TA).

Component 1 of the project will finance EE projects ("subprojects") in public facilities (e.g., schools, kindergartens, hospitals, street lighting) with demonstrable energy savings and social co-benefits (e.g., improved indoor temperature and comfort, reduced student sick days). This will primarily include EE improvements in building envelop (insulation of walls, basements and attics, repair/replacement of external doors and windows, window optimization), heating and cooling systems (boiler upgrade/replacement, fuel switching, reflective surfacing of walls behind radiators, control systems, pipe insulation, chiller/AC replacement, heat pumps), lighting (compact fluorescent lamps, high pressure sodium vapor, light emitting diodes).

2. *Location.* All of the subprojects to be supported by the project will be identified and screened during the implementation stage and will be implemented countrywide.

3. *Project category.* In accordance with the Bank's safeguard policies and procedures, including OP/BP/GP 4.01 *Environmental Assessment*, the project is placed into the Bank's Category B which is applied to all proposed projects that have potential environmental impacts. As at this stage are not yet identified the subprojects to be financed, the Bank requires that client will screen all proposed subprojects and ensures that subproject beneficiaries carry out appropriate EA for each subproject. For this purpose the client prepared an Environment Management Framework (EMF).

4. *Potential environmental impacts.* As the project would support different types of civil works, it may generate some environmental and social impacts. While these impacts are expected to be mostly positive (reduced energy consumption and pollutant emissions, improved indoor temperature and comfort, reduced student sick days, reduced payments for energy resources), the project might also generate some adverse impacts which would be associated with air pollution, dust, noise, construction wastes, asbestos, occupational hazards, etc. All of these adverse impacts are minor, short term, site specific, and can be easily avoided and/or mitigated during project implementation.

5. *Environment Management Framework.* This EMF outlines environmental assessment procedures and mitigation requirements for the subprojects which will be supported by the project. It provides details on procedures, criteria and responsibilities for subprojects' screening, preparing, implementing and monitoring of subproject specific EMP. The document also includes Environmental Guidelines for proposed subprojects, containing the following: (a) generic mitigation measures for potential environmental impacts of the EE activities in the selected premises. In this regard the guidelines are focused, in particular, on handling of construction generated wastes, and storage of hazardous materials under project supported activities, measures to reduce noise and dust; preventing occupational hazards; (b) screening

procedure for identifying Category C subprojects which do not require an EA as well as category B subprojects for which it is necessary to apply an Environment Management Plan Checklist; and (c) requirements for conducting monitoring activities for category B subprojects. The EMF contains also institutional responsibilities for its implementation and for implementation specific EMPs.

6. EA monitoring and reporting activities. Monitoring of EMPs implementation is specified in the Part 3 of the EMP Checklist and should be done by designated construction engineer/inspector. For each subproject it should be developed a special plan in this regard, using provided template, which would contain clear criteria and parameters which can be included in the works contracts, which reflect the status of environmental practice on the construction site and which can be observed/measured/ quantified/verified by the construction engineer during the construction works. Such parameters and criteria include the use of necessary personal protective equipment by workers on the site, dust generation and prevention, amount of water used and discharged by site, presence of proper sanitary facilities for workers, waste collection of separate types (mineral waste, wood, metals, plastic, hazardous waste, e.g. asbestos, paint residues, spent engine oil), waste quantities, proper organization of disposal pathways and facilities, or reuse and recycling wherever possible.

7. EA institutional arrangements and capacity. Ministry of Industry and New Technologies (MINT) will be responsible for the overall project coordination and oversight. The day-to-day implementation was delegated to the PIU, established within the JSC KazEnergoExpertiza (KazEE), which is a specialized state-owned company under the MINT. The PIU has designated a part time Safeguards Specialist which will be in charge of EMF implementation. In his main tasks will be included: (a) subprojects' screening and environmental categorization; (b) ensuring for all category B subprojects an EMP Checklist has been prepared before project implementation; (c) randomly conducting environmental supervision and monitoring of EMPs implementation; (d) ensuring the EMPs provisions are included in the specifications and bills of quantities and in the Contracts for implementing civil works; (e) reporting on EMPs implementation, providing short texts on these issues to be included in the Project Reports to be submitted semiannually to the WB. The recently designated PIU Safeguards Specialist has only general knowledge in the domain without preliminary experience in this regard. To improve his EA capacity it was agreed during the first supervision mission (before the project will finance any of subprojects) the WB Environmental Specialist will provide him on the job training, including all aspects on conducting environmental screening, preparing EMP Checklist, conducting field supervision as well as preparing progress reports.

8. Integration of the EMF into project design and implementation. The EMF will be integrated into the Project's Operational Manual. The subprojects EMP will be integrated into the construction contracts for individual sites, both into specifications and bills of quantities and the Contractors will be required to include the cost in their financial bids. The whole filled in tabular EMP Checklist (or its main provisions) might be attached as an integral part to the works contract and, analogous to all technical and commercial terms, has to be signed by the contract parties.

9. *EA report disclosure and consultation*. The draft EMF was disclosed in the country and consulted with key stakeholders. On November 15, 2012 the draft EMF in Russian was posted on the KazEE web site (www.kazee.kz). On December 13, 2012, the JSC KazEnergoExpertiza conducted a public briefing and consultation meeting on the EMF documents. Separate meetings

and consultations have been held with the representatives of the Ministry of Environmental Protection. The meeting concluded that the draft EMF document covers practically all potential impacts and possible mitigation measures. The final version of the EMF in Russian and its English version were posted on the MINT website and submitted to the World Bank. EMF will be used by the client during the project implementation.

Introduction

1. Project scope and objectives. The proposed Bank project will aim to support the development of a demonstration program in the public and residential sector aimed at EE projects with substantial social and financial benefits in order to (i) improve energy efficiency (EE) in public and social facilities; and (ii) the enabling environment for sustainable energy financing. The proposed Bank project will achieve this objective by: (i) development and implementation of demonstration EE projects in public and social facilities; and (ii) technical assistance (TA).

2. Project Description. The project includes three components:

Component 1 – Development and financing of energy efficiency demonstration projects in the public sector

This component will financing on a grant basis EE projects in the public sector with demonstrable energy savings and substantial social benefits. Targeted facilities include hospitals, homes for the old and disabled, kindergartens and schools. The Project will primarily finance EE improvements in building envelop (insulation of walls, basements and attics, repair/replacement of external doors and windows, window optimization[1]), heating and cooling systems (boiler upgrade/replacement, fuel switching, reflective surfacing of walls behind radiators, control systems, pipe insulation, chiller/AC replacement, heat pumps), lighting (compact fluorescent lamps, high pressure sodium vapor, light emitting diodes), and other energy-using systems (e.g., pumps and fans, solar water heating).

Component 2 – Technical Assistance

The scope of the TA will include:

i. Capacity building to the Ministry of Industry and New Technologies (MINT) and the PIU to support project implementation under Component 1. This will include technical advisors, construction supervision, subproject commissioning, energy savings monitoring and verification, financial management, environmental screening and MINT/PIU staff training.

ii. Technical studies, including EE market assessments and energy audits. In the first year, a comprehensive market assessment will be conducted for the public sector, covering energy consumption data, energy savings potential, investment requirements, potential budgetary resources, financing options, energy audit and construction service providers, equipment suppliers and ESCOs. This assessment will help inform subsequent stages of Component 2 as well as in the eventual design of the dedicated EE financing scheme. Basic energy data will also help develop an initial database, which can be used to eventually assist with facility EE benchmarking, compliance with the EE Law and other GOK priorities.

iii. Awareness, outreach and information campaigns related to demonstration projects financed under Component 1. This will include marketing of the program, development of early subproject case studies to draw lessons learnt, videos and other propaganda materials to help increase awareness of the benefits and importance of EE.

[1] Window optimization involves partial replacement of existing windows with walls while complying with day-lighting requirements.

iv. Developing an appropriate legal, institutional and regulatory basis for setting up sustainable energy financing mechanisms and related activities. Subject to ongoing discussions with MINT, this could include development of necessary legislation related to energy audits, audit certification, defining the ESCO mechanism, budgeting and procurement modifications and the design and structure of a dedicated sustainable energy financing scheme, including a business plan and operations manual.

v. Developing a model *oblast* EE master plan. Aligned with the requirements of the EE Law, the plan would include an assessment of current energy use within the region, EE potential, list of measures (policy, investment, procedural, behavioral), and an plan for implementation, including quantitative targets. The model plan could then be used as reference for other *oblasts* to develop their plans and EE targets.

vi. Designing detailed financial and implementation arrangements for viable financing schemes based on market analyses and political consensus in the Kazakh context, including development of a pipeline of finance-ready EE projects for the EE finance mechanisms to be established.

vii. Other technical studies and TA as identified during project implementation to support the sustainable energy agenda of the GOK.

Component 3 – Administration, monitoring and reporting. This component would finance bank-executed part of the project in terms of administration, monitoring and reporting.

3. Potential environmental issues and project environmental category. The main safeguards issues in the projects are expected to arise from Component 1, related to Development and financing of energy efficiency demonstration projects in the public sector, which constitutes about 75% of the project's financial volume. This component will finance on the grant basis EE subprojects in the public sector with demonstrable energy savings and substantial social benefits. Targeted facilities include hospitals, homes for the old and disabled, kindergartens and schools. The project potential environmental impacts are generally expected to result from routing, small scale indoor construction works required for refurbishing and adaptation of interior space for the replacement of boiler and/or burner, balancing valves, thermostatic valves, automatic temperature control etc. There may be issues of small quantities of hazardous waste to be separately collected and disposed off (e.g. Asbestos-containing materials, small quantities of chemicals and lubricants). It is recognized that these risks are minor and the project was classified by the World Bank's safeguards team as *Category "B" ("low B",* though this is not a formal safeguards classification) and may thus could be prepared following a simplified safeguards procedure. This will require that for each identified object/site, the preparation of a "Checklist Environment Management Plan (EMP)" which is used for projects involving simple, low risk rehabilitation works. As at this stage the concrete subprojects to be financed are not yet identified, this Environmental Management Framework (EMF) has been prepared which outlines the environmentally relevant rules and procedures for the EA of the selected subprojects. A template for the checklist-EMPs for the subprojects is attached to this EMF.

I. EMF Scope and Objectives

4. Scope of the EMF. The main goal of the EMF is to avoid, minimize or mitigate, potential negative environmental and related social impacts caused by implementation of the project. The EMF has to ensure the identified subprojects are correctly assessed from environmental and

social point of view and when needed a subproject-specific Environmental Management Plan Checklist is designed and implemented addressing site specific environmental impacts.

5. EMF components. The EMF therefore contains the following: (a) short description of the project and its activities; (b) assessment of Kazakh and the WB EIA related legal requirements and administrative conditions; (c) a list and general assessment of potential impacts that might be associated with the different types of subprojects; (d) Environmental Guidelines for proposed subprojects that provide environmental screening criteria, a scheme for an assessment of potential impacts and generic mitigation measures to be undertaken for identified subprojects in all stages - from identification and selection, through the design and implementation phase, to the monitoring and evaluation of results, as well as the requirements to an EMP Checklist; and, (e) EMF implementing responsibilities.

II. EA policies, rules and procedures

2.1 National EA legal and institutional framework

6. Main environnent protection legal documents. The basic legal act for environmental protection activity in the country - Environmental Code - was adopted on January 9, 2007. The three previously main laws (the Law on Environmental Protection, the Law on Ecological Expertise and the Law on Air Protection) were abrogated subsequent to their integration into the Environmental Code. Moreover, some 80 normative legal acts were abrogated after the adoption of the Environmental Code. The main goal of the code was to harmonize current environmental legislation with advanced international standards, thereby allowing transition to new standards and improving the system of State control.

7. EA rules and procedures. Before 2006, the provisions for environmental impact assessment (EIA), public Ecological Expertise (PEE) and State Ecological Expertise (SEE)/ (Environmental Review) were stipulated in the Law on Ecological Expertise. The corresponding provisions are now integrated in the Environmental Code. The normative base of EIA development is "Instruction on conducting environmental impact assessment of planned economic activity when developing pre-planning, planning, initial project and project documentation, approved by the Order of the Minister of MEP, 28 June 2007, No. 207-p". According to the instruction there are four stages: 1) Review of Environmental Conditions; 2) Preliminary EIA; 3) EIA; 4) Section "Environmental Protection"; and 5) Post-project analysis. The First stage of EIA "Review of Environment Conditions" includes general characteristic of natural and socio-economic environment of the area of planned activity, analysis of main trends of practical use of the territory and defining of principal positions of EIA. This stage of EIA is based on the feasibility study, available materials, other special literature, project description etc. The Second stage of EIA "Preliminary EIA - potential possible changes of components of natural and socio-economic environment and its impacts are defined. The third stage contains an impact assessment to ensure complete and comprehensive analysis of likely effects of project implementation or further performance of business and other activities, to substantiate alternative options and develop an environmental management plan (program). At the fourth stage should be prepared the section “Environmental Protection” as part of the detail engineering which contains engineering solutions to prevent adverse environmental impact. Finally a post-project analysis should be performed a year after the commencement of business and other activities to confirm environmental safety of the facility and update environmental measures. The rules and

procedures as well as all necessary aspects to be considered during the EIA process are specified in article 35-44 of the Code.

According to Article 36 of the Environmental Code - "Development of Environmental Impact" an assessment is obligatory for all types of activities that can have a direct or indirect impact on the environment or health of the people". By significance and completeness of the assessment, business and other activities for which an environmental impact assessment is performed, can be classified by 4 categories – I, II, III, IV. In the first two classes include the types of activities graded as the 1st and 2nd classes of hazard pursuant to the sanitary classification of industrial facilities, as well as exploration and mining of natural resources, expect for commonly occurring mineral resources. In the category 3 and 4 are included projects with reduced potential impacts. The proposed project activities in most cases do not correspond to any of mentioned categories and are not subject to any EA procedures. Only in some cases dealing with hazardous wastes they may be qualified as category IV projects.

All materials supporting decision-making on regulatory requirements (EIA study and statement, minutes of public hearings, permit applications and other supporting documents) must be reviewed by competent environmental authorities within a procedure known as "ecological expertise". The competent authority at the national, regional and local level checks the documents' quality, prepares its own evaluation and returns both to the developer. The evaluation takes into account the opinions and views expressed by the public and other authorities which have participated in the process. The EIA procedure is performed before the permitting procedure and the developer has to attach the EIA report and the competent authority's statement together with the permit application. EIA procedure lasts about two months and SEE up to three months. A post-project analysis by the authorities is mandatory and carried out after one year. All of the details of conducting EE, including responsible institutions, requirements to the project documents and EA studies are presented in the art. 45-67. The Code also stipulates that all EIA studies might be also subject to a Public Review. It is forbidden to implement projects for economic and other activities or to finance it by banks and other financial institutions without a positive resolution of the state ecological examination. The positive conclusion of state ecological expertise given to the project is generally valid for five years from the date of its issuance.

8. EA disclosure and consultations. According to national EA legislation disclosure and public consultations of the EA documents for category I and II projects is mandatory (there are no requirements for EIA disclosure for category III and IV project), and is to be done at a public place accessible to project-affected groups & local NGOs. Furthermore, the proponent provides a forum or hearing for consultation and comment by project-affected groups and local non-governmental organizations during the environmental assessment process and takes their views into account before finalizing project design and submission of the project to the SEE for final approval. Furthermore, Environmental Code stipulates also the possibility to conduct so called "public ecological expertise".

9. EA Institutional responsibilities. Ecological expertise/environmental review is conducted by the Department of Natural Resources and Environmental Management staff for category I enterprises, by territorial environmental authorities (at the oblast level) for categories II and III, and for category IV enterprises/projects - by local administration (Territorial Department of Environment). Based on this the project activities might be subject to local administration review and approval.

10. Other related regulations:

Noise standards. The level of the noise is determined according to the norms of the SNiP (construction norms and rules) 11-12-77 ((Noise Protection)). The limit of noise exposure at the distance of two meters from the buildings faced to the noise sources in compliance with the SNiP is 70 dBA. The maximum allowable noise level is assumed for the territories neighboring on the residential houses, rest areas of the micro-districts and residential groupings, school areas, playgrounds of the preschool - 10 dBA for existing residential construction - 5 dBA for daylight time from 7 hour till 23 hour - 10 dBA.

Health and safety during construction and operation. It is required to follow the requirements of the SNiP 3.06.04-91 Construction Safety)) during the execution of works. The personal protective equipment shall comply with the applicable GOSTs (apron under the GOST 12.4.029, rubber gloves under the GOST 20010, respirator "The Petal" under the GOST 12.4.028, gloves under the GOST 12.4.010, goggles under the GOST 12.4.013 and breathing mask of B type or B with filter, helmets). The construction site shall be kept in a safe, clean and good sanitary state. The "Contractor" shall bear the responsibility for cleanup of the site from garbage, construction waste and household rubbish and their removal to the municipal solid waste landfill (MSW). The "Contractor" shall be guided by the SanPiN N43.01.016.97 in that regard. In addition, it is necessary to carry out the routine inspection of the machinery and equipment for purpose of the trouble shooting and observance of the time of repair, training and instruction of the workers engaged in maintenance of the machinery, tools and equipment on safe methods and techniques of work.

Safety rules for handling of the tools. All tools - electrified and hand tools - shall be stored on the pallets in the stock rooms. It is necessary to protect the edged components of the tools by casings or other means during transportation and carrying. It is prohibited to distribute the faulty or unchecked tools for work performance. It is prohibited to leave off hand the mechanical tools connected to the electrical supply network or compressed air pipelines; to pull up and bend the cables and air hose pipes; to lay cables and hose pipes with their intersection by wire ropes, electric cables, to handle the rotating elements of power driven hand tools.

Storage of fuel and chemical substances. The storage of all types of fuel and chemicals shall be in the special location with the mandatory fence. The storage area shall not be located near the water source. The ground and fenced territory shall be convenient and ensure the possibility of location of the fuel tanks. The filling and unloading shall be strictly controlled and performed in accordance with the established procedure.

2.2 World Bank EA rules and procedures

11. Main provisions of the EA. Per the WB safeguards policies Environmental Assessment (EA) is a process of the pre-implementation stage which evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, sitting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. EA is mandatory for projects, which may potentially have negative impacts. Furthermore, a well-organized public participation is mandatory in all the

stages of the process. In the case when the projects activities to be financed are not identified at the design stage, the Bank applies an Environmental Management Framework (EMF) which should: provide details on procedures, criteria and responsibilities for subproject screening, preparing, implementing and monitoring of subproject specific EIAs. The EMF should also include Environmental Guidelines for proposed subprojects, containing an assessment of potential impacts and generic mitigation measures to be undertaken for identified subprojects in all stages - from identification and selection, through the design and implementation phase, to the monitoring and evaluation of results.

12. Environmental screening. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The Bank classifies the proposed project 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 Bank's OP/BP/GP 4.01 provides for the following environmental categories of projects:

Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. EA for a Category A project requires a full EIA Assessment. Within this project it is not expected such projects.
Category B: 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; few if any of them are irreversible; and in most cases mitigatory measures can be designed more readily than for Category A projects. The EA for a Category B projects examines the project's potential negative and positive environmental impacts and recommends specific measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. *Category C*: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.
FI Category. Finally, there is a special case of Category FI, when investment of Bank funds is made through a financial intermediary (FI), of subprojects that may result in adverse environmental impacts.

13. Triggered WB safeguards policies. Taking into account the project might generate some environmental and social impacts it triggers the WB OP 4.01 on Environmental Assessment. At the same time, the project activities will not change boundaries, ownership or use rights in the project area and will work within the public buildings without any expansion or need of land and thus the WB OPs 4.12 is not triggered. It has also been confirmed that there will be no impacts on Forests and Natural Habitats as all public and social building are located within the existing settlements. The client also confirmed the project will not support any civil works in public and social buildings which might be considered as Physical Cultural Resources and thus this WB OP 4.11 is not triggered.

III. Project Potential Environmental Impacts

14. Potential project activities. As described in the Project scope, activities to EE would include the following: (a) improvements in building envelop (insulation of walls, basements and attics, repair/replacement of the roofs, external doors and windows, window optimization); (b) heating and cooling systems (boiler upgrade/replacement, fuel switching, reflective surfacing of walls behind radiators, control systems, pipe insulation, chiller/AC replacement, heat pumps); (c)

lighting (compact fluorescent lamps, high pressure sodium vapor, light emitting diodes); (d) other energy-using systems (e.g., pumps and fans, solar water heating); (e) small scale indoor construction works required for refurbishing; and (f) adaptation of interior space for the accommodation of the new equipment, other small scale indoors civil works activities.

15. Potential adverse environmental impacts. The main potential impacts that derive from the rehabilitation activities are the following:

Dust and noise: To avoid these impacts it is needed to follow up the existing best construction activities which are well known and applied in the country and set up in the EMP Checklist

Waste handling and spill response: Routine rehabilitation activities will generate solid and liquid wastes including drywall, machine oil, paints, and solvents. Minor spills of fuel and other materials are likely to occur during the course of civil works. Improper handling of on-site wastes and response to spills could result in adverse effects on the local environment including groundwater.

Asbestos: at this stage it is not known if asbestos has been used in premises to be proposed for rehabilitation, but taking into account it large usage in the RK it is possible to find such material used as an insulation material and/or roofing material. In the case of inappropriate handling of asbestos this material might be a real health concern for the construction workers, and the general public in the vicinity of the rehabilitated premises in particular when it is inhaled;

Potential impacts associated with indoor construction activities: Such impacts can be in the case of the usage of noxious/toxic solvents and glues and of lead-based paints.

Health and safety issues: In the case on non-observance of prescribed labor safety rules and procedures, the workers might be exposed to various occupational hazards as well as to various types of accidents.

All these impacts can be effectively dealt with, if they are recognized through the subprojects EA process and reflected in an EMP Checklist in the design phase in a form of special mitigation measures. These measures should be feasible and cost effective aiming at eliminating, offsetting and reducing adverse environmental impacts. The measure should not only deal with recognized risks, but should as well be used as guidance to make the EE subprojects more environmentally friendly and sustainable.

16. Potential social and economic impacts. The project will also bring positive social impacts as the proposed activities would improve indoor temperature and comfort and reduce student sick days. Furthermore, the project would contribute to reduction in emission of air pollutants, energy savings and, respectively to reduced payments for energy resources.

IV. Environmental Guidelines

17. Purpose and contains of the Guidelines. The Environmental Guidelines provide guidance for environmental management and due diligence of subprojects and contain the following aspects: (a) practical mitigation measures for the EE activities of the selected subprojects described above. In this regard the guidelines cover, in particular, the handling of construction generated wastes, and storage of hazardous materials under project supported activities,

measures to reduce noise and dust; measures for preventing health and safety issues; (b) screening procedure for identifying Category C subprojects which do not require an EA, as well as category B subprojects for which it is necessary to apply the EMP Checklist; (c) description of the EMP Checklist and its use; and (d) requirements for conducting monitoring activities on implementing EMPs.

4.1 Suggested mitigation measures

18. General requirements. Before starting the EE activities it is necessary to inform the local construction and environment inspectorates and local communities about upcoming activities in the media and/or at publicly accessible sites (including the site of the works). Furthermore, it is necessary to have in place all legally required permits for proposed civil works. All EE activities should be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. Construction workers should be properly dressed, having when necessary respirators and safety glasses, harnesses and safety boots.

19. Protection of air quality and dust minimization. During rehabilitation activities it is necessary to use debris-chutes and to keep demolition debris in controlled area, spraying with water mist to reduce debris dust. It is also necessary to suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site. It is strictly prohibited burning of construction/waste material at the site. For the transportation of any other dusty material to the rehabilitation site watering or covering of the cargo should be implemented. Reduction of dust on rehabilitation site during dry season of the year can be accomplished by watering the ground surface. Workers that perform the works should be introduced with protective closes and respirators.

20. Noise reduction. Before any beginning of the work it is recommended to inform all potentially affected parties and especially the neighbors either directly or through local billboards or newspapers on the EE activities. The noise should be limited by using good management practice and limiting works on regular daily shift (in the schools or kindergartens - during the vacation time and or after the school classes). The construction equipment and machinery used should be calibrated according to the Noise Standards.

21. Construction wastes and spills. As a general requirement is that the existing building elements to be insulated and or replaced (walls, roofs, windows etc.) should be done in a carefully manner and the construction wastes should be sorted and removed in an organized way and disposed on an authorized land filed. All valuable materials (doors, windows, sanitary fixtures, etc) should be also carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials should be recycled within the project or sold. Wastes where ever possible should be minimized, separated and handled accordingly. When wastes are separated they are more manageable. Some materials like doors or windows might be usable on the site again. Non-usable materials should be taken to appropriate place for recycling. For non recyclable wastes, in agreement with municipality the wastes will be deposited on city landfill. Open burning and illegal dumping of any waste is strictly prohibited. In addition to solid wastes, some amounts of hazardous wastes will be produced on the site: like the remaining from paints, enamels, oiled packaging, oils, material contaminated with oil, insulation material, etc, – based on the provisions of the Environment Code - all wastes have to be collected and handed over to the local self-government body authorized for collection and transportation of hazardous waste.

22. Asbestos issues. The general approach while handling this material is that constructors avoid crushing/destructing of asbestos plates from the roofs and or from the walls insulation and deposited them in an organized manner on the construction sites. Also the constructors should avoid releasing asbestos fibers into the air from being crushed. It is also imperative while working with asbestos plates the workers have to wear special closing, gloves and respirators. If the use of asbestos-containing materials (ACM) it is anticipated for the roof renovation, it is necessary to provide brief information about alternative non-asbestos materials, their availability and the rationale for the material choice made. Once the presence of ACM in the existing infrastructure has been presumed or confirmed and their disturbance is shown to be unavoidable, incorporate the following requirements in the EMP for construction works:

- Provide the host country laws and regulations for controlling worker and environmental exposure to asbestos in construction work and waste disposal where ACM are present;
- Determine if licensing and permitting of the work by authorities is required.
- Develop a plan for doing works involving removal, repair and disposal of ACM in a way that minimizes worker and community asbestos exposure. The plan should include: (i) Containment of interior areas where removal will occur in a negative pressure enclosure; (ii) Protection of walls, floors and other surfaces with plastic sheeting; (iii) Construction of decontamination facilities for workers and equipment; (iv) Removal of the ACM using wet methods and promptly placing the material in impermeable containers; (v) Final clean-up with vacuum equipment and dismantling of the enclosure and decontamination facilities; (vi) Disposal of the removed ACM and contaminated materials in an approved landfill;
- Require that the construction firms/and or individuals employed during the construction have received training in relevant health and safety issues.
- Provide for all construction workers with personal protection means, including respirators and disposable clothing.
- Require that the beneficiary or the selected contractor notifies authorities of the removal and disposal according to applicable regulations and cooperates fully with representatives of the responsible agency during all inspections and inquiries.

23. Temporary storage of material (including hazardous materials). Stockpiling of construction material should be avoided if possible. If not, construction material should be stored on the construction site, and protected from weathering. Hazardous materials like paints, oils, enamels and others should be kept on impermeable surface, and adsorbents like sand or sawdust should be kept for handling small spillage.

24. Ensuring workers health and safety. As mentioned above in point 10 it is strictly required to follow the provisions of the National SNiP 3.06.04-91 on Construction Safety during the execution of works. The personal should have protective equipment, rubber gloves, respirators, goggles and breathing mask with filter, as well as helmets. Prior starting civil works, all workers have to pass labor safety training course. In addition, it is necessary to carry out the routine inspection of the machinery and equipment for purpose of the trouble shooting and observance of the time of repair, training and instruction of the workers engaged in maintenance of the machinery, tools and equipment on safe methods and techniques of work. Special attention should be paid to welding operations. It is prohibited to distribute the faulty or unchecked tools for work performance as well as to leave off hand the mechanical tools connected to the electrical supply network or compressed air pipelines; to pull up and bend the cables and air hose pipes; to lay cables and hose pipes with their intersection by wire ropes, electric cables, to handle the rotating elements of power driven hand tools.

25. Good housekeeping. This related to general good practice of keeping the sites tidy and organized, including environmentally relevant activities such as the storage of hazardous materials, access restrictions to non-personnel and workplace health and safety.

4.2 Subprojects Environmental Screening

26. Expected subproject environmental categories. As mentioned above, the project will support only EE activities in the existing public and social premises which will not generate significant environmental impacts if any. The project will use the existing facilities and implement different types of EE activities – see point 14 above. Most of these activities will generate insignificant environmental impacts if any, which are site specific, temporary in nature and very easily managed during the project implementation. In some cases they would include also major refurbishing activities, replacement of roofs, as well as associated with some of hazardous materials like asbestos, residues from paints, enamels, etc. Based on mentioned it is expected while most of the subprojects will be Category C, a number of them might be also of Category B.

27. Criteria for environmental screening. Based on the description of the subprojects activities it is possible to identify the type and scale of potential environment impacts and to determine which environmental category the subproject should be attributed. Among most important criteria for such determination would be; (a) type of the impact; (scale and magnitude of the impacts; (c) potentially affected environmental components and people; (d) duration of the impacts. Taking into account potential impacts described above all subprojects might be classified as *Category C* in the following cases:

- insulation of walls, basements and attics,
- repair/replacement of external doors and windows, window optimization,
- boiler upgrade/replacement,
- fuel switching,
- reflective surfacing of walls behind radiators,
- control systems,
- pipe insulation,
- chiller/AC replacement,
- heat pumps,
- compact fluorescent lamps,
- high pressure sodium vapor,
- light emitting diodes
- pumps and fans,
- solar water heating.

The *Category B* should be attributed for the subprojects which would involve the following:

- EE works involving generation of comparatively large waste quantities (e.g. replacement of floor, exchange of ventilation, replacement of doors and/or windows);

- Replacement of the asbestos roofs;
- Major refurbishing activities involving removal / reconstruction of walls (especially when containing Asbestos isolations or sheets);
- EE activities involving potentially hazardous materials like residues from paints, solvents, enamels, and the replacement of larger quantities (several 10's) of windows and doors;
- Heat pumps involving deep (more than 25 m drilling)

28. Environmental screening procedure. The screening should be done at the initial stage of the subprojects selection. Based on the description of the EE activities and on their potential environmental impacts, and using described above criteria the PMU will decide which project category should be attributed. For that purpose it should be used a special Environmental Screening Checklist (see annex 1). This document will be attached to all submitted subprojects.

29. Main EA requirements for Category C and B subprojects. As mentioned above, in the case of Category C subprojects no any further EA actions are needed beyond the Environmental Screening Checklist. For all these small scale EE activities the Contractor is required to follow good construction and housekeeping practices along with requirements related to occupational health and safety issues, avoiding all potential environmental impacts.

In the case of Category B subprojects with more significant impacts and/or related to hazardous wastes and materials, it is, necessary to complete the EMP Checklist attached as Annex 2, identifying and defining the mitigation measures to be implemented during the EE activities. The EMP Checklist will become a part of the construction works contracts and the required mitigation measures would constitute an integral part of the subproject implementation. All contractors will be required to use environmentally acceptable technical standards and procedures during carrying out of works. Additionally, contract clauses shall include requirements towards compliance with all national energy efficiency, construction, health protection, safeguard laws and rules as well as on environmental protection.

4.3. Environment Management Plan Checklist

30. The scope and objective of the EMP. A project's environmental management plan consists of the set of mitigation, monitoring, and institutional responsibility measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. An EMP is a key element of an EA report for all Category B subprojects. As the project would involve typical small scale EE activities it is proposed to be used a generic EMP checklist-type format ("EMP Checklist"), developed by the World Bank to provide "pragmatic good practice" and designed to be user friendly and compatible with safeguard requirements. The checklist-type format attempts to cover typical preventive and mitigation approaches to common civil works contracts with temporary and localized impacts. This format provides the key elements of an Environmental Management Plan to meet Environmental Assessment requirements of the World Bank (under OP/BP/GP 4.01).

31. EMP Checklist structure. The EMP Checklist has three sections: (a) *Part 1* constitutes a descriptive part ("site passport") that describes the project specifics in terms of physical location, the project description and list of permitting or notification procedures with reference to relevant regulations. Attachments for additional information can be supplemented if needed; (b) *Part 2*

includes the environmental and social screening in a simple Yes/No EMS format; and (c) *Part 3* is a site-specific monitoring plan for activities carried out during the rehabilitation activities.

32. EMP disclosure. In case of Category B subprojects although no need for a special public hearing the project beneficiary should provide information to all interested parties about the construction by installing a notice plate placed at the site of the EE subproject. All subproject specific information related to the EMF will be also publicly available on-line on the project website.

33. Integration of the EMP into project documents. The EMP provisions would be used for the following: (a) inclusion of the EMP requirements in the Project Operational Manual; (b) inclusion of Environmental guidelines in construction contracts for individual subprojects, both into specifications and bills of quantities, and the Contractors will be required to include the cost in their financial bids; (c) highlighting of EMP follow-up responsibility within the PMU; (d) specifying mitigation and avoidance measures during the implementation of the proposed activities; and (e) monitoring and evaluation of mitigation/avoidance measures identified in the site-specific review and in the EMP.

4.4 Subprojects Monitoring

34. Purpose of monitoring activities. Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the project environmental impacts and the effectiveness of mitigation measures. Such information enables the client and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMF identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMF.

35. Monitoring activities. Specifically, the monitoring section of the EMP Checklist provides: (a) details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements; and, (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

36. Subprojects environmental supervision and reporting. The Category B subprojects implementation will be supervised by the PMU periodically, as well as by the WB (during its supervision missions) as well as could be supervised also by the local ecological and environmental construction inspectors. Semiannually the PMU will present short information about the EMF implementation and subprojects environmental performances as part of the Progress Reports to be presented to the WB by the client.

V. Implementing arrangements and funding

37. Funding for EMPs implementation. During the reconstruction phase, monitoring of the EMP Checklist implementation is going to be funded as part of provisions of the EE supervision contract, and is the responsibility of the EE supervision Engineer to be selected to perform the supervision of works. Implementation of specific EMP-stipulated mitigation measures during the subprojects implementation will be funded as part of provisions of the EE works contract, and is the responsibility of the firm selected to execute the EE works.

38. Overall project implementing responsibilities. The overall responsibility of the project implementation and of appropriate procedures and principles regarding the environmental assessment, monitoring etc, lies with on JSC «KazEE». The JSC KazEE is supported by a Secretariat in the MINT and a JSC «KazEE» Steering Committee, which brings together the main stakeholders (including staff from the МИНТ and JSC «KazEE») to spearhead the concrete work on this project. An important element in this endeavor is the National Pact between the MINT and AO "KazEE" which commits these parties to active collaboration in developing and implementing EE subprojects in Kazakhstan.

39. Role of the Project Management Unit (PMU). The JSC"KEE" has created a PMU which would ensure the participation of stakeholders at multiple levels, but also will ultimately be responsible for the implementation of the project. The PMU will also ensure that the subproject applicants are informed sufficiently about the relevant environmental and EA issues. In this regard it will be responsible for: (a) coordination of environmental and EA related issues; (b) monitoring of the environmental impacts within the overall monitoring of the subprojects implementation; (c) communication with an EA competent authority (Ministry of Environment); and (d) ensuring the proper implementation of the EMP Checklist requirements during the subprojects' realization.

The PMU will be responsible also for: (a) subprojects environmental screening; (b) carry out the evaluation of the subproject's eligibility from the environmental point of view; (c) provide necessary information on the environmental issues to the subprojects applicants (especially inform them about the environmental criteria to be used, explain all obligations regarding the EIA procedure etc.). Additionally the PMU will be also responsible for supervising independently or jointly with the State Ecological Inspectorate the mitigation and environmental protection measures stipulated in Environmental Management Plan.

40. Construction companies. All EE civil works and installation activities will be done by authorized companies. They are responsible for full and qualitative implementation of the EMP Checklists provisions.

41. Capacity building. To improve institutional capacities with regard to EMF implementation the WB Environmental Specialist will provide special training for the PMU staff focused on: (i) Procedural aspects of EA (stages, key actors, main responsibilities etc.); (ii) Assessment of environmental and social impacts potentially related to the subproject supported within the project; (iii) Consulting and approval of the EA and monitoring plans; and (iii) preparing EMP Checklist; (iv) Conducting field supervision as well as preparing progress reports.

VI. EMF Disclosure and Public consultation

42. EMF disclosure. The MINT has disseminated the EMF to its relevant departments and to other interested parties for review and comments, also posting (on November 15, 2012) it for wide public on the KazEE web site (www.kazee.kz) in Russian.

43. EMF consultations. The draft EMF was consulted with all key stakeholders. On December 13, 2012 the MINT conducted a public briefing and consultation meeting on the document (see minutes of the consultation in the Annex 3). Separate follow up consultations have been conducted with representatives of the Ministry of environmental protection. The meeting

concluded that the draft EMF document covers practically all potential impacts and possible mitigation measures along with clear procedures from environmental screening and monitoring. The draft document was revised after the meeting, taking into account outputs from the previous consultations.

44. The final EMF disclosure. The final version of the EMF (Russian translation) and its English version were posted on the KazEE web site (www.kazee.kz) and submitted to the World Bank for its disclosure in the WB Infoshop and will be used by the PCU during the project implementation. The EMF related documentation (as manuals, forms, and EMP template) is also available at the project web-site and can be accessed by all interested parties.

Annex 1. ENVIRONMENTAL SCREENING CHECKLIST

(Part 1) (to be completed by Sub-borrower)

1. **Project Name:**

2. **Brief Description of Sub-project** to include: nature of the project, project cost, physical size, site area, location.

3. **Proposed rehabilitation activities** (in yes/no terms)

Type of EE activities	**Yes**	**No**
Insulation of walls, basements and attics,		
Repair/replacement of external doors and windows, window optimization,		
Boiler upgrade/replacement,		
Fuel switching,		
Reflective surfacing of walls behind radiators,		
Control systems,		
Pipe insulation,		
Chiller/AC replacement,		
Heat pumps,		
Heat pumps with deep (> 25 m drilling)		
Compact fluorescent lamps, high pressure sodium vapor,		
Light emitting diodes		
Pumps and fans,		
Solar water heating.		
EE works involving generation of comparatively large waste quantities (e.g. replacement of floor, exchange of ventilation, replacement of doors and/or windows);		
Replacement of the asbestos roofs;		
Major refurbishing activities involving removal / reconstruction of walls (especially when containing Asbestos isolations or sheets);		
EE activities involving potentially hazardous materials like residues from paints, solvents, enamels, and the replacement of larger quantities (several 10's) of windows and doors;		

(Part 2) (to be completed by the PMU based on the findings of the environmental screening and scoping process)

3. Project Environmental Category (B or C) _____
4. EMP Checklist is required (yes or no) _____
5. What are the specific issues to be addressed in the EMP Checklist)

Environmental Screener: **Date:**

Annex 2. Draft Format for an EMP Checklist for Energy Efficiency subprojects

PART 1: INSTITUTIONAL & ADMINISTRATIVE				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (Name and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			Attachment 1: Site Map [ ] Y [ ] N	
Who owns the land?				
Geographic description				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where the public consultation process took place				
INSTITUTIONAL CAPACITY BUILDING				
Will there be any capacity building?	[ ] N or [ ]Y if Yes, Attachment 2 includes the capacity building program			

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following:	**Activity**	**Status**	**Additional references**
	Building rehabilitation	[ ] Yes [ ] No	See Section **B** below
	New construction	[ ] Yes [ ] No	See Section **B** below
	Individual wastewater treatment system	[ ] Yes [ ] No	See Section **C** below
	Historic building(s) and districts	[ ] Yes [ ] No	See Section **D** below
	Acquisition of land[2]	[ ] Yes [ ] No	See Section **E** below
	Hazardous or toxic materials[3]	[ ] Yes [ ] No	See Section **F** below
	Impacts on forests and/or protected areas	[ ] Yes [ ] No	See Section **G** below
	Handling / management of medical waste	[ ] Yes [ ] No	See Section **H** below

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
A. General Conditions	Notification and Worker Safety	The local construction and environment inspectorates and communities have been notified of upcoming activities The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) All legally required permits have been acquired for construction and/or rehabilitation All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
B. General Rehabilitation and /or Construction Activities	Air Quality	During interior demolition use debris-chutes above the first floor Keep demolition debris in controlled area and spray with water mist to reduce debris dust Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site Keep surrounding environment (side walks, roads) free of debris to minimize dust There will be no open burning of construction / waste material at the site There will be no excessive idling of construction vehicles at sites
	Noise	Construction noise will be limited to restricted times agreed to in the permit During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. Construction waste will be collected and disposed properly by licensed collectors The records of waste disposal will be maintained as proof for proper management as designed. Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)

[2] Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

[3] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
C. Individual wastewater treatment system	Water Quality	The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment Monitoring of new wastewater systems (before/after) will be carried out
D. Historic building(s)	Cultural Heritage	If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation Ensure that provisions are put in place so that artifacts or other possible "chance finds" encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.
E. Acquisition of land	Land Acquisition Plan/Framework	If expropriation of land was not expected and is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the bank task Team Leader is consulted. The approved Land Acquisition Plan/Framework (if required by the project) will be implemented
F. Toxic Materials	Asbestos management	If asbestos is located on the project site, mark clearly as hazardous material When possible the asbestos will be appropriately contained and sealed to minimize exposure The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust Asbestos will be handled and disposed by skilled & experienced professionals If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately The removed asbestos will not be reused
	Toxic / hazardous waste management	Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information The containers of hazardous substances should be placed in an leak-proof container to prevent spillage and leaching The wastes are transported by specially licensed carriers and disposed in a licensed facility. Paints with toxic ingredients or solvents or lead-based paints will not be used
G. Affects forests and/or protected areas	Protection	All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
H. Disposal of medical waste	Infrastructure for medical waste management	In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: Special facilities for segregated healthcare waste (including soiled instruments "sharps", and human tissue or fluids) from other waste disposal; and

		Appropriate storage facilities for medical waste are in place; and If the activity includes facility-based treatment, appropriate disposal options are in place and operational

PART 3: MONITORING PLAN **Phase**	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Cost** (if not included in project budget)	**Who** (Is responsible for monitoring?)
During activity implementation							
During activity supervision							

Annex 3. Report on Consultation on the Draft Environmental Management Framework with interested parties

Date: December 13, 2012
Venue: 7 Continent Business Center, Astana

Location/ venue	Objective	Invitees	Participants	Summary, conclusions and comments
Astana, 7 Continent Business Center, 14th floor 40 Kenesary str., Astana	To describe the EE project , including EMF and Environmental Guidelines and solicit feedback	There were not sent personal invitations. The invitation to participate in Consultation was sent electronically to the following institutions: Ministry of Environmental Protection, Agency of Construction and Utilities Services, business association Atameken, Union of Energy Auditors, national environmental NGOs.	1. Ministry of Environmental Protection: Ainura Sospanova, Director of department of "green" technologies and investments, and her staff 2. Kazakhstan Center of development and modernization of housing and utilties: E.Abdimalikov, Director of Consulting and Engineering 3. Atameken Union - Business Association NGO: B.Adilov 4. Kazakhstan Association of Energy Auditors NGO: A.Repin, representative 5. Representatives of the Ministry of Industry and New technologies and JSC KazEE	At the meeting, there were made presentations on: Environmental Management Framework for the project. The attendees actively participated in discussions which were mainly focused on the Bank's environmental screening procedure and capability of environmental authorities to perform monitoring of sub-projects. The participants endorsed the draft EMF and concluded it satisfactorily address the environmental issues under the project.