Environmental Assessment and Review Framework

July 2015

AZE: Power Distribution Enhancement Investment Program

CONTENTS

LIST OF ABBREVIATIONS

ADB	–	Asian Development Bank
CFC	-	Chlorofluorocarbons
EA	–	Executing Agency
EARF	-	Environmental Assessment and Review Framework
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
GoA	–	Government of Azerbaijan
GFP	-	Grievance Focal Points
GHG	-	Green House Gases
GRC	–	Grievance Redress Commission
IEE	-	Initial Environmental Examination
MENR	-	Ministry of Ecology and Natural Resources
MFF	–	Multi-tranche Financing Facility
PCBs	--	polychlorinated biphenyl
PIU	-	Project Implementation Unit
PMC	-	Project Supervision and Management Consultant
REA	-	Rapid Environmental Assessment
SEE	-	State Policy on Ecological Expertise
SPS	-	Safeguard Policy Statement
TA	-	Technical Assistance

A. INTRODUCTION

1. The Government of Azerbaijan (GoA) has requested the Asian Development Bank (ADB) to provide funding to support Azerishig Open Joint Stock Company's (OJSC) Power Distribution Enhancement Investment Program (the Investment Program). The Investment Program aims to improve energy efficiency of the power distribution sector in Azerbaijan through rehabilitation and expansion of the aged distribution network. The investment program will (i) improve power supply reliability in the region; (ii) reduce distribution losses; (iii) improve customer service efficiency and quality; (iv) improve operational and financial performance of the regional distribution companies, and (v) promote corporate reform and capacity development in the distribution subsector.

2. The investment program will have three major outputs: (i) rehabilitation of 110 kV, 35 kV, 10 kV, and 6 kV distribution networks including distribution lines and substations; (ii) rehabilitation of 0.4 kV customer service lines and installation of advanced electric meters; and (iii) strengthened institutional capacity of Azerishig OJSC. The components covered under the investment program are expected to consist of:

(i) **Rehabilitation of 110 kV, 35 kV, 10 kV, and 6 kV Power Distribution Networks.** Rehabilitation of 110 kV substations 15 units, 35 kV substations 52 units, 6-10 kV transformer stations 4,004 units; 110 kV distribution lines 150 km, 35 kV distribution lines 400 km, 6-10 kV distribution lines 2,600 km.

(ii) **Rehabilitation of 0.4 kV Customer Service Lines and Meters**. Replacement of 0.4 kV customer service lines 10,154 km including installation of electric meters. The existing 0.4 kV bare overhead bare conductors will be completely replaced with new self-supporting aerial bundled cables (insulated), and the existing poles will be completely replaced with new steel, concrete or wood poles. The new insulated cables will make illegal access to distribution lines and energy theft impossible.

(iii) **Support for Institutional Development, Capacity Building, and Project Management**: including consultancy services for (i) project supervision and management including procurement, engineering support, financial management, social and environmental safeguard monitoring, external audits, and training. (ii) preparing and monitoring of all subsequent tranches under the proposed MFF; (iii) support for policy development and capacity building of Azerishig staff.

3. The Program will be financed by ADB through a Multi-tranche Financing Facility (MFF). There will be three tranches associated with the Program. Under the MFF loan procedures of the ADB, implementation of environmental safeguards is to be achieved by environmental assessment of every project to be undertaken following the ADB's Safeguard Policy Statement June 2009 (SPS 2009). The constituent projects in the Investment Program generally concern investments in existing facilities and are most unlikely to affect sensitive areas, forests or wetlands, and might typically be expected to have been classified as Category B or C under the ADB's SPS 2009 that will be followed for all projects.

4. This Environmental Assessment and Review Framework (EARF) is applicable to all investments funded by this MFF, and particularly to projects included in subsequent tranches that have not yet been fully defined.

B. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

5. Environmental assessment of future projects will be undertaken with regard to complying with ADB and GoA policies, legislation, and requirements. This also includes complying with relevant international agreements.

1. Government of Azerbaijan Environmental Policies, Laws and Regulations

a. *Laws and Regulations*

6. Azerbaijan has a number of laws that include provisions for environmental protection and monitoring, and for the management of environmental issues related to development projects, originating in the constitution (1995). The Constitution is the highest law in the Azerbaijan Republic and prevails over national legislation and international agreements. It stipulates the basic rights of people to live in a healthy environment, to have access to information on the state of the environment and to obtain compensation for damage suffered as the result of a violation of environmental legislation.

7. As in other regional countries, much of the Soviet-era environment-related legislation has been replaced or modified. The Law on Environmental Protection, 1999, is the centerpiece of the new legal structure. Other acts complement it in important ways. Together, the new laws invoke the polluter-pays principle, open the door for the use of economic instruments, partially bridge the gap between existing and international environmental standards, and enhance the role of public awareness, among other new elements.

8. Some of the important laws relevant to the proposed power sector project focusing on environmental impact assessment are described below.

(i) ***Law on the Protection of Environment, 1999:*** The Law of the Republic of Azerbaijan on the Protection of Environment (1999) establishes the legal, economic and social bases for environment protection. The objective of the Law is to project environmental balance, thus: (i) ensuring environmental safety; (ii) preventing hazardous impact of industry and other activities to natural ecological systems; (iii) preserving biological diversity; and (iv) utilizing natural resources properly. The relevant clauses of this Law are:

- Article 35. Ecological requirements set forth natural resources use.
- Article 36. Ecological requirements set forth work protection.
- Article 37. Ecological requirements set forth the placement (location) of enterprises, installations and industrial units.
- Article 38. Ecological requirements set forth the construction and reconstruction of enterprises, installations and other industrial units.
- Article 49. Protection of the earth's climate and ozone layer.
- Article 50. The objectives of the ecological expertise is to identify impacts on environment caused by industrial units, examine the results of such impacts and predict possible impacts, in accordance with environmental requirements and qualitative parameters of the environment.
- Article 54. The units controlled by the State Ecological Expertise (SEE). According to Sub-Article 54.2, EIA is subject to SEE review and MENR is responsible for the review and approval of EIA reports submitted by project proponents.
- Articles 81 and 82. Provide for the application of international agreements in case an international institute or body has provisions that are different from those in Azerbaijani legislation.

(ii) ***The State Ecological Expertise (SEE)***: Mandates an EIA for infrastructure development projects. The objective of the SEE is to identify impacts on the environment caused by construction projects, examine the results of such impacts and propose mitigation measures to prevent adverse effects on the natural environment and people's health. It is essentially a stand-alone check of

compliance of the proposed activity with the relevant environmental standards (e.g. for pollution levels, discharges, and noise).

(iii) ***Handbook of Environmental Impact Assessment (1996)***: This handbook was prepared by UNDP and it defines the project types requiring Environmental Assessment (EA), contents of the document on EA roles and, responsibilities of applicant and responsible state organization, procedures, public participation and complaints. It is not a legally binding document but government use it for environmental assessmental of the projects. A new draft law on Environmental Impact Assessment is under review by parliament and will be approved soon.

(iv) ***Azerbaijan Environmental and Safety Regulations:*** Other relevant national laws summarized below are:

- Law on Protection of Foreign Investment (1992): This includes a number of safeguards for foreign investors and allows the acquisition of exploration and development rights. Revisions on this Law are planned.
- Law on Use of Energy Resources (1996): This provides the legal, economic and social policy basis for the efficient use of energy resources. The State has the power to control the use of energy resources by State enterprises and organizations, to set policy for efficient energy resource use and, to use a range of mechanisms to promote energy saving technology and equipment. Registration of plans for energy resource use is also addressed.
- Law on Power Engineering (1998): This provides the legal basis for electrical and thermal power generation, transmission, distribution, purchase, sales and consumption. It governs the activities of State power engineering companies, power supply companies, independent power producers and consumers. The relevant State authorities are responsible for licensing, transmission and distribution contracts, pricing, de-monopolization, performance criteria, rules and standards.
- Law on Energy (1999): This covers energy policy objectives, the ownership of resources, control of exploration, development of fields and the construction and maintenance of transport systems. The Law includes a strong commitment to energy efficiency and contains significant licensing provisions.
- The State Program for the Development of the Fuel and Energy Sector of the Azerbaijan Republic (2005-2015): This program was approved by Presidential Decree on February 14, 2005. The Ministry of Industry and Energy has been designated as the coordinating agency for this program. The overall goal of this program is to fully meet demand for power, gas and other energy resources through the continued development of the fuel and energy sectors. The program also focuses on sector restructuring, the installation of modern equipment and the introduction of a management system suitable for operating in a market economy.
- National Program on Environmentally Sustainable Socio-Economic Development: This program covers the period 2003 to 2010 and includes actions to mitigate the impact of the energy sector on the environment, including: (i) the introduction of highly efficient technologies at thermal power plants; (ii) the promotion of modern energy saving technologies in both the production and non-production sectors; and (iii) the development and implementation of national and regional programs aimed at demand management.
- Law on the Electrical and Heat stations 1999: This Law includes the following relevant sections: (i) Section3, which stipulates requirements for construction, reconstruction and exploitation of power stations; (ii) Article 9, which sets emission limits for power stations; (iii) Article 11, which sets limits for noise

and vibration; (iv) Article 12, which deals with water wastes; (v) Article 13, which provides measures for decreasing water wastes; (vi) Article 14, which deals with accidents; and (vii) Article 15, which specifies penalties.

- A complete list of relevant laws is given at Table 1.

Table 1: Relevant Laws, Legislations, and Policies in Azerbaijan

Sl. No.	Law / Regulation / Policy	Date of Adoption
1.	Law of the Republic of Azerbaijan on "Industrial and municipal wastes"	30.07.1998
2.	Law project on "Making changes and supplements to Law of theRepublic of Azerbaijan on industrial and municipal wastes"	
3.	President Decree on the application of Law of theRepublic of Azerbaijan on "Industrial and municipal wastes"	26.10.1998
4.	Law of the Republic of Azerbaijan on "Energy"	24.11.1998
5.	Law of the Republic of Azerbaijan on "Principles of town-building"	11.07.1999
6.	Law of the Republic of Azerbaijan on "Investment activities"	13.01.1995
7.	Law of the Republic of Azerbaijan on "Foreign investment laws"	15.01.1992
8.	President's Order on "Extra measures for the issues associated to the international conventions and agreements on environment protetion in which the Republic of Azerbaijan has joined"	30.03.2006
9.	National Program of the Republic of Azerbaijan on "Environmentally sustainable social-economic development"	18.02.2003
10.	On "Measures for providing the implementation of the commitments The Republic of Azerbaijan has adopted in accordance with the UNFCCC ratified by the Republic of Azerbaijan in January 10, 1995"	30.04.1997
11.	Law of the Republic of Azerbaijan on "Public awareness raising on environmental issues"	10.12.2002
12.	Law of the Republic of Azerbaijan on "Protection of environment"	08.07.1999
13.	Law of the Republic of Azerbaijan on "Obligatory ecological ensurance"	12.03.2002
14.	Law of The Republic of Azerbaijan on specially protected natural territories and sites	24.03.2000
15.	Law of the Republic of Azerbaijan on export control	26.10.2004
16.	Law of the Republic of Azerbaijan on Protection of Atmospheric Air	21.03.2001
17.	President Decree on the application of Law of the Republic of Azerbaijan on "Protection of Atmospheric Air"	11.06.2001
18.	Law of the Republic of Azerbaijan on 'Phyto-sanitary control"	21.05.2006
19.	President Decree on "Application of Law of the Republic of Azerbaijan on phyto-sanitary control"	06.02.2007
20.	State Program on "Alternative energy development in Azerbaijan"	Nov. 2004
21.	State Program on "Social-economic development of regions"	
22.	National Program on "Reforestration and Forestration in Azerbaijan"	2003
23.	Law on "Thermal and power stations"	28.12.1999
24.	State Program on "Development of fuel and energy complex of the Republic of Azerbaijan in 2005-2015 years"	14.02.2005
25.	Law on "Electric power"	13.06.1998
26.	Law on "Energy production"	01.02.1999
27.	Civil Code of the Republic of Azerbaijan	01.09.2000
28.	Law on "Environmental safety"	
29.	President order on "Ratification of the Complex Measures Plan on the improvement of ecological condition in the Republic of Azerbaijan for 2006-2010 years"	
30	Law on Access to Public Information, Public Participation in Decision Making and Access to Justice in Environmental Matters	1999
31.	Law on "Natural gas supply"	30.06.1998
32.	Decision of Tariff Council	07.01.2007
33.	Law on Protection of Historical and Cultural Sites	1998 (amendment

Sl. No.	Law / Regulation / Policy	Date of Adoption
		2005)
34.	Law on Sanitary and Epidemiological Safety	1993
35.	Law on Amelioration and Irrigation	1996
36.	Law on Protection of Flora	1996
37.	Law on Chemicals and Pesticides	1996
38.	Land Code	1996
39.	Water Code	1997
40.	Forestry Code	1997
41.	Law on Public Health	1997
42.	Law on Radiation Safety of Population	1997
43.	Law on Fauna	1999
44.	Law on Mandatory Environmental Insurance	2002
45.	Law on Access to Environmental Information	2002
46.	Law on Environmental Education	2002
47.	Decree 176, on Payments for the Use of Natural Resources and Environmental Contamination	1992

b. Policies

9. The Government's approach to environmental problems has a solid strategic anchor. The NEAP of 1997 includes elements of analysis and hints of needed policy reform and prioritizes environmental problems into 32 objectives. Although the NEAP's objectives have not been reached, most of its directions remain valid, and an updating of the NEAP is being considered. The 2001 National Environmental Health Plan offers an approach to environmental management based on health considerations, rather than mainly ecological ones. The State Program on Poverty Reduction and Economic Development (SPPRED) 2003–2005, developed by the Ministry of Economic Development, acknowledges the many links between poverty and environmental conditions. It echoes the priorities of the NEAP and adds to them. The State Program on Environmentally Sustainable Socio-Economic Development 2003–2010, approved in 2003, addresses the principal dimensions of sustainable development, contains a time-bound plan of action, and gives MENR the primary role in guiding its implementation, but envisages involvement of mainstream economic agencies in that process. The State Program for Restoration and Expansion of Forests 2003 proposes activities in 10 subsectors.

10. The National Biodiversity Strategy and Action Plan (2015-2020) prepared by the Ministry of Ecology and Natural Resources with involvement of number of other ministries and other governmental organizations clearly indicates the need for improvement of laws and legislations related to environmental safeguards.

c. International Agreements and Conventions[1]

11. The international agreements and conventions of relevance to the Project to which The Republic of Azerbaijan is party (or to which active discussions are taking place) are listed below. The Government has signed these international conventions in the environmental field.

- International Convention on Civil Liability for Oil Pollution Damage, 1969;
- Protocol of 1976 to the International Convention on Civil Liability for Oil Pollution Damage, 1976;

[1] *Source: As per the Permanent Mission of the Republic of Azerbaijan to the United Nations, http://www.un.int/azerbaijan/mult_1.html*

- International Convention for the Prevention of Pollution from Ships/ Vessels (MARPOL), 1973 as amended by the protocol, 1978 - The legislation giving effect to MARPOL 73/78 in Azerbaijan is the Protection of the Sea (Prevention of Pollution from Ships) Act 1983. Preventing and minimizing pollution of the marine environment from ships - both accidental pollution and that from routine operations, Azerbaijan acceded in 2004;
- Convention on Long-range Transboundary Air Pollution, 1979;
- Montreal Protocol on Substances that Deplete the Ozone Layer,1987 - Specific requirements for reductions in emissions of gases that deplete the ozone layer. Amended four times: London 1990, Copenhagen 1992, Montreal 1997 and Beijing 1999.,Azerbaijan acceded in 1996;
- UN Convention on the Protection of the Ozone Layer (Vienna Convention) - Framework for directing international effort to protect the ozone layer, including legally binding requirements limiting the production and use of ozone depleting substances as defined in the Montreal Protocol to the Convention. Supported by the Montreal Protocol and amendments, 1996;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989; Azerbaijan ratified in 2001.
- International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990; Azerbaijan acceded in 2004;
- Convention on Environmental Impact Assessments in a Transboundary Context, 1991;
- United Nations Framework Convention on Climate Change, 1992;
- Convention on Biological Diversity, 1992; Azerbaijan became party to the Convention in 2000;
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992;
- Convention on the Trans-boundary Effects of Industrial Accidents, 1992; Azerbaijan acceded in 2004;
- Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1992;
- United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 1994;
- Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, 1997;
- Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1997; Azerbaijan acceded in 2000.
- Protocol of 1997 to amend the International Convention for Prevention of Pollution from Ships, as modified by the Protocol of 1978 relating thereto, 1997;
- Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Convention), 1999; Azerbaijan acceded in 2002;
- Espoo Convention - To promote environmentally sound and sustainable development through the application of ESIA, especially as a preventive measure against transboundary environmental degradation, Azerbaijan acceded in 1999;
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Entered into force in Azerbaijan in 1999;Convention for the Protection of the Archaeological Heritage of Europe, Azerbaijan ratified in 2000;
- Aarhus Convention - To guarantee the rights of access to information, public participation in decision-making and access to justice in environmental matters, Azerbaijan acceded in 2000;
- The Stockholm Convention on Persistent Organic Pollutants, Reduction in releases of dioxins, furans, hexachlorobenzene and PCBs with the aim of minimization or elimination. Stockholm, May 2001., Azerbaijan acceded in 2004.

- UNESCO Convention on Wetlands of International Importance especially as Waterfowl Habitat / RAMSAR Convention - Promote conservation of wetlands and waterfowl. In addition, certain wetlands are designated as Wetlands of International Importance and receive additional protection, 2001
- Bern Convention- Conservation of wild flora and fauna and their natural habitats,2002
- UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions, Azerbaijan acceded in 2010.

d. Environmental Assessment Process in Azerbaijan

12. Environmental assessment and review procedures in Azerbaijan, as stipulated in the SEE, do not include the categorization of projects. After initial review by the SEE, projects are categorized as high risk or low risk projects. For high risk projects full Environmental Impact Assessment (EIA) is required. However, for low risk projects the SEE does not require additional action. Since categorization is absent under Azerbaijan environmental regulations, the ADB guidelines will be adopted for subproject categorization under the Investment Program. A summary of EA process in Azerbaijan is given in Table 2 below:

Table 2: Summary of Guidance on the EA Process in Azerbaijan.

Screening	The developer is required to submit an Application (containing basic information on the proposal) to MENR to determine whether an EA is required.
Scoping	Requirement for a Scoping Meeting to be attended by the developer, experts and concerned members of the public, and aimed at reaching a consensus on the scope of the EA
Project Description	Full description of technological process and analysis of what is being proposed in terms of planning, pre-feasibility, construction and operation.
Environmental Studies	Requirement to describe fully the baseline environment at the site and elsewhere, if likely to be affected by the proposal. The environment must be described in terms of its various components – physical, ecological and social.
Consideration of Alternatives	No requirement to discuss Project alternatives and their potential impacts (including the so-called “do-nothing” alternative), except for the description of alternative technologies.
Impact Assessment and Mitigation	Requirement to identify all impacts (direct and indirect, onsite and offsite, acute and chronic, one-off and cumulative, transient and irreversible). Each impact must be evaluated according to its significance and severity and mitigation measures provided to avoid, reduce, or compensate for these impacts.
Public participation	Requirement to inform the affected public about the planned activities twice: when the application is submitted to the MENR for the preliminary assessment and during the EA process. The developer is expected to involve the affected public in discussions on the proposal.
Monitoring	The developer is responsible for continuous compliance with the conditions of the EA approval through a monitoring program.. The MENR undertakes inspections of the implementation of activities in order to verify the accuracy and reliability of the developer’s monitoring data. The developer is responsible for notifying the MENR and taking necessary measures in case the monitoring reveals inconsistencies with the conditions of the EA approval.

13. Given that the proposed rehabilitation and enhancement project will have only minor potential impacts it is expected that MENR will not require a full EIA and therefore this IEE is likely to be sufficient to obtain MENR approval.

2. ADB Environmental Safeguard Requirements and Policies

14. Environmental assessment will be carried out to ensure that potential adverse environmental impacts are addressed according to the ADB Safeguard Policy Statement, 2009 (SPS 2009).

15. The SPS 2009 consists of three policy components: (i) Environment Safeguards, (ii) Involuntary Resettlement Safeguards, and (iii) Indigenous People Safeguards. The objectives of Environment Safeguards are to ensure the environmental soundness and sustainability of projects and to support the integration of environmental considerations into the project decision-making process. To help achieve the desired outcomes, ADB adopts a set of specific safeguard requirements that need to be achieved during the processing and implementation of projects financed by ADB. The environmental safeguard principles are stated in the Safeguard Policy Statement, which will guide environmental assessment process of projects.

16. The SPS establishes the format for the presentation of the environmental assessment.

17. ADB categorizes projects into categories A, B, C, and FI according to the significance of likely impacts. The categorization criteria are as follow:

(i) **Category A**. Projects with potential for significant adverse environmental impacts: An EIA is required to address significant impacts.

(ii) **Category B**. Project judged to have some adverse impacts, but of lesser degree and/or significance than category A. An initial environmental examination (IEE) is required to determine whether or not significant environmental impacts warranting an EIA are likely. If an EIA is not needed, the IEE is regarded as the final environmental assessment report.

(iii) **Category C**. Projects unlikely to have adverse impacts. No EIA or IEE required, although environmental implications are still reviewed.

(iv) **Category FI**. Projects are classified as category FI if they involve a credit line through a financial intermediary or an equity investment in a financial intermediary. The financial intermediary must apply an environmental management system, unless all subprojects will result in insignificant impacts.

18. Based on the Government's and ADB's environmental policies, the projects to be financed under the MFF will be subject to the following requirements:

(i) A requirement for environmental assessment of each project depends on its potential impacts. Based on these potential impacts, and using ADB's Rapid Environmental Assessment (REA) Checklist, Attachment 1, each project will be assigned an environmental category. The Tranche is categorized based on the most sensitive component.

(ii) For each Category A project, an EIA including an environmental management plan (EMP) is required. For each Category B project, an IEE including EMP is required.

3. Institutional Capacity

19. The principal national environmental agency charged with environmental protection is the Ministry of Ecology and Natural Resources (MENR). This Ministry was established in 2001 to replace the former State Committee for the Environment, with an expanded mandate that includes geology, fisheries, and forests. MENR upholds all natural resources protection laws. The State Ecology Expertise (SEE) acts within this Ministry at the Program level in reviewing Environmental Impact Assessments (EIAs) of any developmental activities within the jurisdiction of Republic of Azerbaijan. Recently State Committee for Land and Cartography has been abolished and its functions were distributed among different governmental institutions. MENR also got part of the roles and responsibilities but those are still waiting for the final approval by Cabinet of Ministries.

20. The major, even if indirect, role played in environment management by Government bodies other than MENR are the Ministry of Economic Development, Ministry of Agriculture (with its Committee for Land Improvement and Irrigation), Ministry of Fuel and Energy, Ministry of Health, Ministry of Education, Ministry of Interior, Ministry of Transport, Ministry of Justice and Ministry of Emergency Situations. Each of these agencies has a unit (a department, division, center, or section) charged with the environmental dimension of their activities, attesting to a deliberate attempt by the Government to undertake environmental mainstreaming.

21. At the Program level, as Executing Agency, Azerishig OJSC's organization structure does not include any group or person responsible for management of the environmental aspects associated with its operations. Azerishig OJSC is a newly created entity arising from a Presidential Decree unbundling the power sector. There is a need for significant technical support for Azerishig OJSC throughout implementation of the MFF program to ensure that ADB's environmental safeguards requirements and those of the GOA are fully complied with.

22. To meet this need it is proposed that Azerishig's Project Implementation Unit (PIU) be augmented with an additional staff member who is an environmental specialist with experience in preparing environmental assessments and management plans, integrating environmental management plans into tender documents and monitoring and reporting on the implementation of environmental management plans. It is envisaged that the PIU environment specialist would be supported in their role by the project supervision and management consultant (PMC) who will have an environment specialist on the consultant team. A key activity of the project supervision and management consultant's environment specialist will involve capacity building of the PIU's environment specialist with a view to institutionalizing environmental safeguards within Azerishig's operations. Implementation of environmental mitigation measures will be the responsibility of Azerishig.

C. ANTICIPATED ENVIRONMENTAL IMPACTS

23. As noted in Section A the distribution enhancement investment program involves the following physical activities (i) rehabilitation of 110 kV, 35 kV, 10 kV, and 6 kV distribution networks including distribution lines, substations and complete transformer substations (CTS); and (ii) rehabilitation of 0.4 kV customer service lines and installation of advanced electric meters.

24. Most potential negative impacts may occur during the construction phase of the project. In summary, the construction phase involves the following broad types of activities:

- Dismantling and disposal of old substation, transformer and distribution line infrastructure including transformers, switchyard, poles/towers and lines

- Construction and installation of new substation, CTSs and distribution line infrastructure within existing substation sites and distribution line corridors
- Construction of some new 35 kV substations on green field sites on land owned by Azerishig. These will be connected to existing distribution line corridors nearby by either underground lines (in populated areas) or above ground poles in rural areas
- Installation of new 0.4 kV self supporting insulated wire (SIW) customer service lines and installation of advanced electric meters.

25. The construction works for all project components will require minimal civil works.

26. Construction methods for substation rehabilitation will involve soil removal, platform preparation, foundations for transformers and installation of new transformers and switchgear within existing site boundaries. All the existing substations were built originally with a view for future expansion such that the land covered in the existing substation site can easily accommodate a new substation. There will be limited use of powered mechanical equipment other than cranes and trucks for equipment transportation. Much of the work will involve manual erection of equipment.

27. Construction methods for distribution line rehabilitation will involve removal of existing lines and poles/towers along the existing rights of way, auguring of holes for new pole/tower foundations, erection of new poles/towers using cranes and manual labour and stringing of conductors using pulleys with mobile winches. Where underground lines are proposed in urban areas this will involve the use of a small mechanical excavator to dig a narrow trench 1m deep and <0.5m wide, laying of gravel base, laying of cable within a protective sheath, covering with gravel and emplacement of concrete above.

28. Construction of CTS will involve replacing existing 10kV or 6kV transformers as well as some additional new transformers. CTSs comprise an enclosed transformer (2.5x2.5x1.5m) placed on a concrete slab approximately (4m x4m) and surrounded by an iron safety fence. Construction works are primarily manual including the occasional use of a mobile crane and largely hand held mechanical equipment.

1. Design and Location Impacts

29. In all project areas, the project components do not encroach upon ecologically sensitive areas. They are generally located and traverse through barren land with minimum vegetative cover and agricultural areas. Maximum emphasis has been given to use existing distribution line corridors as well as existing locations for substations. Most project components will be constructed and operated within existing substation sites and distribution line rights of way. For the occasional new substation site and distribution lines, site selection has been done based on the analysis of Azerishig's existing network and the following principles:

(i) Utilize Azerishig's existing land assets
(ii) Minimize disturbance of human settlements;
(iii) Avoid monuments of cultural or historical importance;
(iv) Do not create a threat to the survival of any community with special reference to tribal communities;
(v) Do not affect any public utility services like playgrounds, schools etc.;
(vi) Do not pass through any sanctuaries, national parks, reserve forests etc.;
(vii) Minimize damage to existing forest resources, and
(viii) Selection of new equipment, i.e. transformers, capacitors, etc., will comply with international standards particularly with respect to avoiding use of PCBs.

30. The selection of new equipment, i.e. transformers, capacitors, etc., will comply with international standards. In particular, no PCB oils will be used.

2. Construction Impacts

31. Minor disruption to farming activities and disturbance of crops, bunds, canals and drains could occur during construction and maintenance activities. To minimize such impacts, established roads, tracks and maintenance access ways will be used wherever possible, compensation will be paid for temporary loss in agricultural production in accordance with the provisions made in land acquisition resettlement framework.

32. Topsoil will be protected and reinstated after construction is completed, and damaged bunds and irrigation facilities will be maintained in working condition throughout project implementation. Temporary access roads may be needed in some locations. The environmental impacts associated with the establishment of temporary access roads will include compaction of soil structure and disruption of stream or other water bodies. To minimize the impact the contractors will be required to limit the load of trucks in transporting construction equipment and materials.

33. Uncontrolled soil erosion and silt run-off are likely to be minor due to the limited amount of excavation required for poles / substation foundations and dry climate. In addition, measures to minimize erosion and silt run-off will be incorporated into contract documents.

34. Substations will be sited and designed to ensure noise levels from the fence will not exceed 55 dB(A) at daytime and 45 dB(A) at night time. Noise generated by construction activities will be of short duration in predominantly rural locations, and is considered insignificant. Other nuisances from construction activities will be mitigated through contract clauses specifying careful construction practices and compensation paid for any losses in agricultural production.

35. Escape of polluting material such as oil and sewage from construction camps (if required) and substations will be prevented through design and installation of appropriate oil containment and sewerage systems. Hazardous waste generated from phased out equipment namely old transformers will be disposed of as per existing norms of the Ministry of Ecology and Natural Resources (MENR) which are bound by international obligations under the Stockholm Convention on Persistent Organic Pollutants to which Azerbaijan is a signatory.

36. Health hazards from potential explosions/ fire, electric shocks, accidents to staff and the general public will be minimized through implementation of measures such as:

(i) Careful designs using appropriate technologies to minimize hazards;
(ii) Safety awareness raising for construction and operational staff and general public;
(iii) Substations equipped with modern fire control systems;
(iv) Provision of adequate water supply and sanitation facilities for substations and construction camps;
(v) Provision of adequate staff training in operations and maintenance; and
(vi) Security fences and barriers around substations and towers in populated areas.

3. Operational Impacts

37. Minimum land width will be maintained under distribution lines as maintenance rights-of-way (RoWs). Trimming (“lopping”) of trees (if required) will be carried out with the assistance of the local forest department to ensure that the required vertical clearances from the top of tree to the conductor are maintained throughout the line corridors. This will reduce the chances of forest fires due to electric sparks.

38. It is unlikely that Sulphur hexafluoride gas (SF_6)[2] gas will be used as an insulating agent for electrical switching equipment, cables and transformers since it is normally only used in applications involving high voltages (>350kV). In the case that equipment containing SF_6 is used, equipment with a low leakage rate (<99%) will be used.

39. To minimize the risk of accidents and exposure to electric fields, houses will not be allowed within RoWs. General awareness among people about potential risks due to high-voltage and low voltage lines and safety aspects should be raised.

40. Table 1 summarizes the anticipated impacts during construction and operations. Overall, the Project will have minimal negative impacts that can be cost-effectively mitigated.

Table 1: Project Impacts and Mitigation Measures

Types of Impacts	Impact Sources	Treatment Measures
Noise: Construction Period	Construction equipment and equipment repairing and maintenance	Equipment to meet local noise standards; construction scheduling to avoid evening and nighttime disruption
Noise: Operational Period	Distribution lines and associated substations	Locate facility 70 m to 100 m away from nearest receptor; walls, fencing, and/or greenbelt to provide partial sound barrier
Wastewater: Construction Period	Domestic wastewater	Primary treatment by camps (if required)
	Industrial wastewater from construction equipment maintenance	Sedimentation and biological treatment if necessary
	Waste oil from phased out transformers and other equipments	Decommissioning transport, storage and disposal of old transformers will be undertaken in accordance with national and international best practice and supervised by the MENR as required under Azerbaijan's obligations as a signatory to the Stockholm Convention on Persistent Organic Pollutants.[3]
Wastewater: Operational Period	Domestic wastewater	Primary treatment if needed
	Industrial wastewater and oils from transformer replacement	Off-site disposal at licensed treatment facility and as above for old transformers.
Air Quality: Construction Period	Dust during construction and exhaust gases from construction machinery and vehicles	Continuous management measures to be imposed at the construction sites
Air Quality: Operational Period	Release of gases in receptors from process, equipments	Replace equipment / process / system using CFCs including halon and dispose of in manner consistent with the requirements of the Government
Solid Wastes: Construction Period	Spoils from earth moving; construction debris	Spoils to be used as base material for substations and greenbelts
	Replaced equipments	Dispose of in a manner consistent with the requirements of the Government and in the case of old transformers see above.
Solid Wastes:	Garbage from substations	Disposed at facilities approved by local

[2] SF_6 is one of the six greenhouse gases covered by the Kyoto Protocol, but Azerbaijan is not subject to Kyoto emissions caps and SF_6 is not regulated by Government of Azerbaijan as a pollutant

[3] It is assumed that old transformers may contain PCB oils and therefore will require careful handling storage and disposal accordingly in accordance with internationally recognised best practice as per UNEP "PCB Transformers and Capacitors: From Management to Reclassification and Disposal" (2002) available at http://www.chem.unep.ch/pops/pdf/PCBtranscap.pdf.

Types of Impacts	Impact Sources	Treatment Measures
Operational Period	and storage yards	government pollution control agencies

BOD = biochemical oxygen demand, COD = chemical oxygen demand, dB(A) = decibel acoustic, NO_2 = nitrogen dioxide, NO_x = nitrogen oxides, PCB = polychlorinated biphenyl, SO_2 = sulfur dioxide, TSP = total suspended particles, CFC – Chlorofluorocarbons, GHG – Green House Gases.

D. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS AND/OR COMPONENTS

41. The EARF outlines the policies, procedures, and institutional requirements for preparing subsequent subprojects. The Executing Agency (EA), Azerishig, is responsible for preparing the required environmental assessments and obtaining ADB concurrence prior to implementation. These approvals must be in place prior to finalization of contracts and commencement of work.

42. The following general criteria will be adopted for selection of the projects included in the MFF:

i. Subprojects will not be located in strict nature reserves, i.e., national parks, wildlife sanctuaries or wetlands, unless unavoidable for technical reasons (see Attachment 2 for list of protected areas).
ii. Monuments of cultural or historical importance will be avoided. Care should be taken in working around such area with additional specific mitigation measures.
iii. An environmental management plan (EMP) with adequate budget will be developed for each subproject.
iv. Potential environmental impacts will be minimized by routing and siting to avoid sensitive areas. Re-alignment or selection of alternative sites may be required.
v. Clearing of any existing forest resources will be avoided to the extent possible, and, where unavoidable, will be minimized and compensated as per GoA regulatory criteria.
vi. New equipment / facilities specifications shall follow international standards and best practices to avoid use of chemicals causing greenhouse gas (GHG) emissions.
vii. All equipment procured under the investment program shall be free from polychlorinated biphenyl (PCBs).

1. Environmental Screening and Classification Requirements

43. The Safeguard Policy Statement establishes screening and categorisation of projects and determines the level of study required. The significance of project's environmental impacts and risks determines the environmental categorization of the project.

44. During the selection of subprojects, Policy Principle 8 (Environment) as specified in the Safeguard Policy Statement will be used for the first level of screening. Policy Principle 8 specifies:

> "Do not implement project activities in areas of critical habitats, unless (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, (ii) there is no reduction in the population of any recognized endangered or critically endangered species, and (iii) any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area. In an area of natural habitats, there must be no significant conversion or degradation, unless (i) alternatives are not available, (ii) the overall benefits from the project substantially outweigh the environmental costs, and (iii) any conversion or

degradation is appropriately mitigated. Use a precautionary approach to the use, development, and management of renewable natural resources."

45. Projects which trigger any of the above conditions in Policy Principle 8 will require approval from ADB who will advise whether the project may proceed. If it will proceed it will undertake a rigorous environmental categorization to ensure proper environmental classification and the level of environmental assessment needed according to ADB Environmental Guidelines.

46. All subprojects to be included in MFF will be screened to determine its environmental category based on the ADB's Rapid Environmental Assessment (REA) Checklist.[4] Categorization is to be based on the most environmental sensitive component, which means that if one part of the project is with potential for significant adverse environmental impacts, then the project is to be classified as Category A regardless of potential environmental impacts of other aspects of the project. In general, a project will be classified as 'Category A' if the project:

(i) requires a complex mitigation measure needing to be prepared through an in depth assessment of the impacts and detailed study for preparing mitigation measures;
(ii) will generate impact on an ecologically sensitive area, particularly if the project is located in buffer or core zone of any designated specially protected areas, or area of international significance or cultural heritage and archaeological sites designated by UNESCO.

47. All subprojects will be categorised and based on their category relevant environmental assessment procedure will be followed (IEE or EIA). Environmental assessment is a generic terms used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project.

48. Depending on the significance of project impacts and risks, the assessment may comprise a full scale EIA for Category A projects, an IEE or equivalent process for Category B projects, or a desk review for Category C projects.

2. Environmental Assessment and Environmental Management Plan Requirements

49. At an early stage of the preparation of each project, Azerishig will categorize the project as A, B, or C and carry out the necessary Environmental Assessment. The IEE/EIA will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned NGOs. For projects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, Azerishig will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the particular project location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental costs and benefits of the various alternatives considered into account. The "no action" alternative will be also considered.

50. Impacts and risks will be analyzed in the context of the each project area that encompasses:

(i) the primary project site(s) and related facilities;

[4] A template of ADB's Rapid Environmental Assessment for Power Transmission in provided in Attachment 1.

(ii) associated facilities that are not funded as part of the Program, and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project;
(iii) areas and communities potentially affected by cumulative impacts of the Program, and other sources of similar impacts in the geographical area; and
(iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location.

51. Environmental impacts and risks will also be analysed for all relevant stages of the project cycle, including preconstruction, construction, operation, decommissioning, and post-closure activities such as rehabilitation or restoration.

52. Azerishig will prepare an EMP that addresses the potential impacts and risks identified by the IEE/EIA. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training requirements, implementation schedule, cost estimates, and performance indicators.

53. ADB requires that the environmental assessment and presentation of the EMP is to follow the report structure outlined in Appendix 1 of the Safeguard Policy Statement. Each IEE or EIA consists of different sections as shown in Attachment 3.

54. Azerishig should ensure that ADB be given access to undertake environmental due diligence for all projects under the MFF. However, Azerishig has the main responsibility for undertaking environmental due diligence and monitoring the implementation of environmental mitigation measures for all projects. The due diligence report as well as monitoring reports on implementation of the EMP needs to be documented systematically.

55. Environmental monitoring will consist of routine systematic checking that the above environmental management measures have been implemented effectively during each stage of the project. Table 2 presents the summary monitoring plan for projects to be funded by the MFF.

Table 2: Summary Environmental Monitoring Plan

Environmental Monitoring Tasks[5]	Implementation Responsibility	Implementation Schedule
Pre Construction Phase		
Review project bidding documents to ensure EMP is included.	EA through project implementation unit	Prior to issue of bidding documents.
Monitor contractor's detailed alignment survey to ensure relevant environmental mitigation measures in EMP have been included.	EA with assistance of project implementation unit	Prior to EA approval of contractor's detailed alignment survey.
Review detailed designs of Facilities to ensure standard environmental safeguards/mitigation measures (as identified in EMP) have been included.	EA with assistance of project implementation unit	Prior to EA approval of contractor's detailed designs.

[5] Monitoring of issues related to compensation of landowners for loss of production, etc., are addressed in the Land Acquisition and Resettlement Framework.

Environmental Monitoring Tasks[5]	Implementation Responsibility	Implementation Schedule
Construction Phase		
Regular monitoring and reporting of contractor's compliance with contractual environmental mitigation measures.	EA with assistance of project implementation unit	Continuous throughout construction period.
Operation and Maintenance Phase		
Observations during routine maintenance inspections of facilities and distribution lines RoWs. Inspections will include monitoring implementation status of mitigation measures specified in EMP.	EA	As per EAs inspection schedules

E. CONSULTATION, INFORMATION DISCLOSURE, AND GRIEVANCES REDRESS MECHANISM

56. IEEs and EIAs prepared for additional sub projects will be translated into local language(s) and made available to the public.

1. Public Consultation

57. For any project subject to the EARF and where an IEE is required, formal and documented public consultation and information disclosure will be required in accordance with the ADB and government's consultation and information disclosure requirements. This will be done at an early stage during IEE preparation and is to inform stakeholders of the project components and to encourage input to identify possibly overlooked environmental issues. The information disclosed and feedback provided at the consultation sessions will be summarized, attendance recorded, and the document attached as an annex to the IEE.

58. For each of the projects (or groups of projects where applicable) Azerishig will organize consultations with project affected people and other stakeholders. Consultation will be based on the following principles:

(i) Early start in the project preparation stage and continuation throughout the project cycle;
(ii) Timely disclosure of relevant information in a comprehensible and readily accessible to affected people format;
(iii) Ensuring the absence of intimidation or coercion during public consultation;
(iv) Gender inclusive and responsive with focus on disadvantaged and vulnerable groups, and
(v) Enabling the integration of all relevant views of affected people and stakeholders into decision-making.

59. Invited attendees at IEE consultations will include government agencies and district authorities, community representatives, as well as NGOs. At least two week notice of consultation meetings will be given.

2. Information Disclosure

60. Azerishig and ADB agree that in disclosing environmental information for each of the projects to the public that:

(i) Azerishig is responsible for ensuring that all environmental assessment documentation, including the environmental due diligence and monitoring reports, are properly and systematically kept as part of a Azerishig project specific record;
(ii) all environmental documents are subject to public disclosure, and therefore be made available to public;
(iii) For Category A projects, the draft EIAs will be disclosed to the public through ADB's website 120 days prior to ADB Board consideration, or approval of the PFR for subsequent tranches. The EIA has to be reviewed by ADB before it is disclosed to the public;
(iv) For Category B projects the IEE has to be disclosed on ADB's website upon receipt; and
(v) Azerishig will ensure that meaningful public consultations, particularly with project affected persons, are undertaken during the IEE/EIA preparation process for the future projects.

3. Grievance Redress Mechanism

61. In order to receive and facilitate the resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance an Environmental Grievance Redress Mechanism will be established for each of the projects. When and where the need arises, the mechanism will be used for addressing any complaints that arise during the implementation of projects. The grievance mechanism should be scaled to the risks and adverse impacts of the project. It should address affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no costs and without retribution. The mechanism should not impede access to the Azerbaijan's judicial or administrative remedies. Azerishig will appropriately inform the affected people about the mechanism.

4. Grievance Focal Points, Complaints Reporting, Recording and Monitoring

62. The process for solving environmental complaints that may arise in the project is the Grievance Redress Mechanism, which will have to be established at each district (rayon) in which the various project components will be implemented. The process is described below:

63. Environment complaints will be received through the Grievance Focal Point (GFP), these will be designated personnel from within the community who will be responsible for receiving the Environmental complaints. The Contractor will record the complaint in the onsite Environmental Complaints Register (ECR) in the presence of the GFP.

64. The GFP will discuss the complaint with the Contractor and have it resolved;

65. If the Contractor does not resolve the complaint within one week, then the GFP will bring the complaint to the attention of the project supervision and management consultant PMC. The PMC's Environment Specialist will then be responsible for coordinating with the Contractor in solving the issue.

66. If the Complaint is not resolved within 2 weeks the GFP will present the complaint to the Grievance Redress Committee (GRC). The GRC will be comprised of designated officials from the following organizations: Contractor's Environment Specialist, PMC' Environment Specialist, GFP, District Level representative, DE Environment Specialist and a representative from Azerishig"s PIU.

67. The GRC will have to resolve the complaint within a period of 2 weeks and the resolved complaint will have to be communicated back to the community. The Contractor will then record the complaint as resolved and closed in the Environmental Complaints Register.

68. In parallel to the ECR placed with the Contractor, each GFP will maintain a record of the complaints received and will follow up on their rapid resolution.

69. Azerishig will also keep track of the status of all complaints through the Monthly Environmental Monitoring Report submitted by the Contractor to the PMC, and will ensure that they are resolved in a timely manner. Figure 1 shows that Grievance Redress Mechanism.

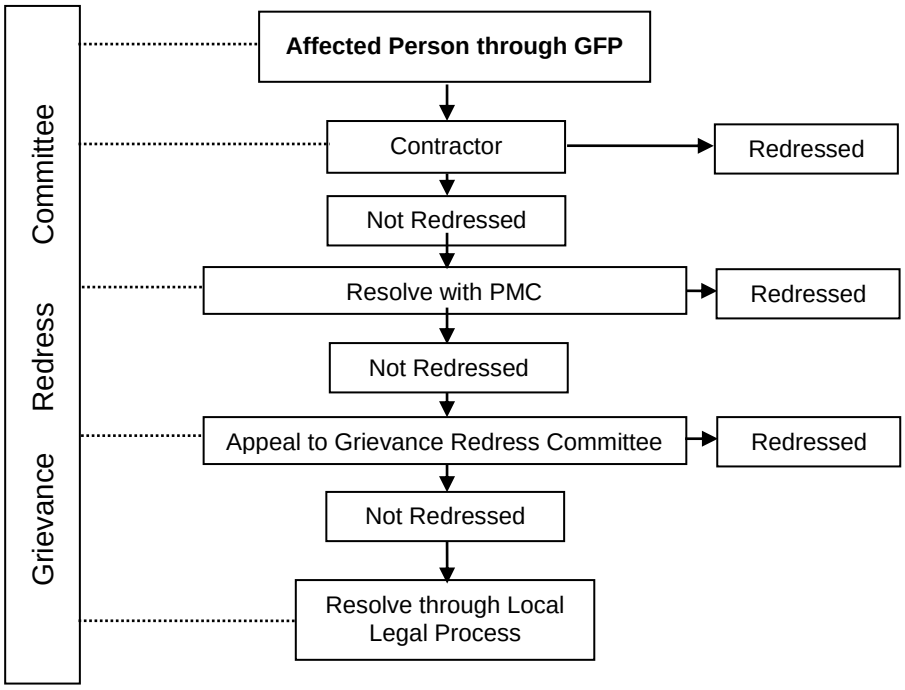

Figure 1: Grievance Redress Mechanism

F. INSTITUTIONAL ARRANGEMENT AND RESPONSIBILITIES

70. The main institutions that will be involved in environmental management activities are Azerishig the program executing agency (EA), Azerishig OJSC, project management and supervision consultant (PMC), contractors, and line agencies including Ministry of Ecology and Natural Resources.

71. Azerishig has overall responsibility for all aspects of the Program. The Project Implementation Unit (PIU) established within Azerishig will be responsible for the day to day management of the technical aspects of the Program. It is proposed that an environmental specialist will be appointed to the PIU by Azerishig who will be responsible for management of the environmental aspects associated with development of electricity distribution projects financed under the MFF.

72. Responsibility of environmental management and compliance with SPS 2009 requirements lies with the Azerishig PIU.

73. Azerishig PIU will ensure the environmental management and monitoring budgets are available and utilized as necessary for timely EMP implementation.

74. Each contractor will be required to have one person designated as environmental officer / coordinator working in the field. This environmental officer will be responsible for day to day implementation of the EMP.

75. The detailed responsibilities of each agency are listed here.

1. Azerishig Responsibilities

(i) Prepare environmental screening (REA) checklist and assign a category to all new projects in consultation with MENR and other departments.

(ii) Based on the environmental classification of projects, prepare terms of reference to conduct IEE or EIA studies.
(iii) If required hire an environmental consultant to prepare IEE or EIA reports which will include an EMP for public disclosure according to SPS 2009.
(iv) Ensure that an IEE or EIA are prepared in compliance with the requirements of the Government and ADB, and that adequate consultation with affected people is undertaken in accordance with ADB requirements and recorded in the IEE/EIA
(v) Undertake review of the IEE or EIA, and EMP reports to ensure their compliance with the requirements of the Government and ADB.
(vi) Obtain necessary permits and/or clearance, as required, from MENR and other relevant government agencies, ensuring that all necessary regulatory clearances are obtained before commencing any civil work on the relevant sections.
(vii) Submit to ADB the IEE or EIA, and EMP reports and other documents, as necessary.
(viii) Ensure that any EMP including relevant mitigation measures needing to be incorporated during the construction stage by the contractor are included in the bidding documents.
(ix) Ensure that contractors have access to the EIA / IEE and EMP reports of the projects.
(x) Ensure that the EMP is made part of the Contractor's bidding documents.
(xi) Ensure that contractors understand their responsibilities to mitigate environmental problems associated with their construction activities and train their staff in implementation of the EMP.
(xii) Ensure and monitor that an EMP including an environmental monitoring plan will be properly implemented.
(xiii) Ensure that the contractor submits regular environmental monitoring reports to the PMC as part of routine progress reporting.
(xiv) Ensure that the PMC reviews and submits biannual Environmental monitoring reports to the PIU.
(xv) Submit biannual environmental monitoring report to ADB.
(xvi) In case unpredicted environmental impacts occur during the project implementation stage, prepare and implement as necessary an environmental emergency program in consultation with MENR, any other relevant government agencies, and ADB.

2. ADB Responsibilities

(i) Review IEE / EIA and Environmental Monitoring reports and the rapid environmental assessment checklist as a basis to issue approval for the project.
(ii) Assign Category to new projects (Tranches) based on REA Checklist.
(iii) Undertake periodic monitoring of the EMP implementation and due diligence as part of an overall project review mission.
(iv) If required, provide advice to Azerishig in carrying out its responsibilities to implement the EMP for the project.

G. MONITORING AND REPORTING

76. Throughout implementation of the MFF, the Government and ADB will monitor the implementation progress and impact of projects. Overall, the EMP for each project will be implemented by contractors under supervision of the PIU/PMC within Azerishig. In consultation with Azerishig and ADB, the PIU will establish a system for preparing biannual reports on environmental performance monitoring, issues resolution, and corrective action plans.

77. Progress on the preparation and implementation of EMPs will be included in the periodic project progress reports. Specific monitoring activities defined in the IEEs or EIAs

and EMPs will be carried out by the contractors and supervised by the PMC's Environment Specialist and monitored by the PIU's Environment Specialist. Azerishig will submit biannual Environmental Monitoring Reports on EMPs implementation for ADB's review.

78. In general, the overall extent of monitoring activities, including their scope and periodicity, should be commensurate with the project's risks and impacts. Azerishig is required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements. At a minimum, ADB will require Azerishig to:

(i) establish and maintain procedures to monitor the progress of implementation of EMPs;
(ii) verify the compliance with environmental measures and their progress toward intended outcomes;
(iii) document monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports;
(iv) follow up on these actions to ensure progress toward the desired outcomes;
(v) submit bi-annual environmental monitoring reports on compliance with the EMPs.

79. ADB will carry out the following monitoring actions to supervise project implementation:

(i) conduct periodic site visits for projects with adverse environmental or social impacts;
(ii) conduct supervision missions with detailed review by ADB's safeguard specialists/officers or consultants for projects with significant adverse social or environmental impacts;
(iii) review the biannual monitoring reports submitted by Azerishig to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
(iv) work with Azerishig to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to re-establish compliance as appropriate; and
(v) prepare project completion reports that assesses whether the objective and desired outcomes of the EMPs have been achieved, taking into account the baseline conditions and the results of monitoring.

80. The PIU, with assistance of the PMC, will review the IEE or EIA and corresponding EMP for each project to ensure that mitigation measures and monitoring plans proposed in that document are in compliance with ADB's and national requirements. According to the reports and reviews during its missions, ADB, in consultation with the Government, will confirm compliance. For this purpose, the PIU will provide ADB with access to information on any projects. The information on implementation of an EMP, as well as that on environmental and social safeguard compliance, will be systematically documented and reported to ADB as part of the regular progress reports.

81. Monitoring plans will be prepared for each project and will be part of each IEE.

(i) An Environmental Specialist in Azerishig PIU will be responsible for reviewing and updating the monitoring program to ensure that it meets the intention of the EMP and for carrying it out.
(ii) The PIU Environmental Specialist will prepare biannual Environmental Monitoring Reports on the project EMP implementation and submit to ADB. The report will outline where work has not complied with the EMP and what steps have been taken to rectify it, format of the Monitoring Report is attached as Attachment 4.
(iii) After one year the Environmental Specialist will arrange to review the monitoring program and make any adjustments to it as required. The Environmental Specialist will inform the ADB and Azerishig of any changes that are recommended to be made prior to implementing the changes.

ATTACHMENT 1: REA CHECK LIST

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to Environment and Safeguards Division (RSES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
B. Potential Environmental Impacts Will the Project cause…			
▪ encroachment on historical/cultural areas, disfiguration of landscape and increased waste generation?			
▪ encroachment on precious ecosystem (e.g. sensitive or protected areas)?			
▪ alteration of surface water hydrology of waterways crossed by roads and resulting in increased sediment in streams affected by increased soil erosion at the construction site?			
▪ damage to sensitive coastal/marine habitats by construction of submarine cables?			

Screening Questions	Yes	No	Remarks
▪ deterioration of surface water quality due to silt runoff, sanitary wastes from worker-based camps and chemicals used in construction?			
▪ increased local air pollution due to rock crushing, cutting and filling?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
▪ chemical pollution resulting from chemical clearing of vegetation for construction site?			
▪ noise and vibration due to blasting and other civil works?			
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ social conflicts relating to inconveniences in living conditions where construction interferes with pre-existing roads?			
▪ hazardous driving conditions where construction interferes with pre-existing roads?			
▪ creation of temporary breeding habitats for vectors of disease such as mosquitoes and rodents?			
▪ dislocation and compulsory resettlement of people living in right-of-way of the power transmission lines?			
▪ environmental disturbances associated with the maintenance of lines (e.g. routine control of vegetative height under the lines)?			
▪ facilitation of access to protected areas in case corridors traverse protected areas?			
▪ disturbances (e.g. noise and chemical pollutants) if herbicides are used to control vegetative height?			
▪ large population influx during project construction and operation that cause increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ social conflicts if workers from other regions or countries are hired?			
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?			
▪ risks to community safety associated with maintenance of lines and related facilities?			

Screening Questions	Yes	No	Remarks
▪ community health hazards due to electromagnetic fields, land subsidence, lowered groundwater table, and salinization?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., high voltage wires, and transmission towers and lines) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			

A Checklist for Preliminary Climate Risk Screening

Country/Project Title:

Sector :

Subsector:

Division/Department:

Screening Questions		Score	Remarks[6]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?		
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?		
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?		
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High):_____

Other Comments:_____
_____

Prepared by: _____

[6] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

ATTACHMENT 2: LIST AND MAP OF PROTECTED AREAS OF AZERBAIJAN

List of the Specially Protected Nature Areas of the Republic of Azerbaijan

National Parks

№	Name of the SPNA	Administrative territory	Area (ha)	Date of establishment
1	Zangazur NP named after Academician H.Aliyev	Nakhichevan AR	42797,4	2003
2	Shirvan NP	Garadagh district of Baku city, Salyan and Neftchala regions	54373,5	2003
3	Aghgol NP	Aghjabadi and Beylagan regions	17924	2003
4	Hirkan NP	Lankaran and Astara regions	40358	2004
5	Altiaghaj NP	Khizi and Siyazan regions	11035	2004
6	Absheron NP	Azizbayov district of Baku city	783	2005
7	Shahdagh NP	Guba, Gusar, Ismayilly, Gabala, Oghuz and Shamakhy regions	130508,1	2006
8	Goygol NP	Goygol, Dashkasan and Goranboy regions	12755	2008
9	Samur- Yalama NP	Khachmaz, Khudat, Yalama regions	11772,5	2012

State Nature Reserves

№	Name of the SPNA	Administrative territory	Area (ha)	Date of establishment
1	Gizilaghaj SNR	Lankaran region	88 360	1929
2	Zagatala SNR	Zagatala and Balakan regions	47 349	1929
3	Turyanchay SNR	Aghdash, Oghuz,Yevlakh and Gabala regions	22 488	1958
4	Shirvan SNR	Salyan and Neftchala regions	6232	1969
5	Basitchay SNR	Zangilan region	107	1974
6	Garayazi SNR	Gazakh region	9658	1978
7	Ilisu SNR	Gakh region	17381,6	1987
8	Garagol SNR	Lachin region	240	1987
9	Eldar shami SNR	Samukh region	1686	2004
10	Mud volcanoes SNR	Baku and Absheron peninsula	20 000	2007
11	Korchay SNR	Goranboy region	4833,6	2008

State Nature Sanctuaries

№	Name of the SPNA	Administrative territory	Area (ha)	Date of establishment
1	Lachin SNS	Lachin region	20 000	1961
2	Korchay SNS	Goygol and Goranboy regions	15 000	1961
3	Bandovan SNS	Salyan region and Garadagh district	4930	1961
4	Shaki SNS	Shaki region	10 350	1964
5	Gusar SNS	Gusar region	15 000	1964
6	Shamkir SNS	Shamkir region	10 000	1964
7	Gil island SNS	Gil island	400	1964

8	Garayazy-Aghstafa SNS	Aghstafa region	10 000	1964
9	Barda SNS	Barda and Aghdam regions	7500	1966
10	Zuvand SNS	Lerik,Yardimly regions	15 000	1969
11	Ordubad SNS	Ordubad region	27 869	1969
12	Ismayilli SNS	Ismayilly and Gabala region	23 438	1969
13	Qubadlı SNS	Qubadlı, Lachin region	20 000	1969
14	Lesser Gizilaghaj SNS	Lankaran region	10 700	1978
15	Dashaltı SNS	Shusha region	450	1981
16	Qizilja SNS	Gedebey region	5135	1984
17	Arazboyu SNS	Zangilan region	2200	1993
18	Gabala SNS	Gabala region	39 700	1993
19	Gakh SNS	Gakh region	36 836	2003
20	Hirkan SNS	Lankaran and Astara regions	1553	2005
21	Arazboyu SNS	Nakhichevan AR	9118	2005
22	Zagatala SNS	Zagatala and Balakan regions	6557	2008
23	Arpachay SNS	Nakhichevan AR , Sharur region	68 911	2009
24	Rvarud SNS	Lerik region	510	2009

Source: Ministry of Ecology and Natural Resources of Azerbaijan Republic (http://www.eco.gov.az/en/b-xm-tb.php)

ATTACHMENT 3: FORMAT AND CONTENT OF IEE

This outline is part of the Safeguard Requirements 1. An environmental assessment report is required for all environment category A and B projects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. A typical EIA report contains the following major elements, and an IEE may have a narrower scope depending on the nature of the project. The substantive aspects of this outline will guide the preparation of environmental impact assessment reports, although not necessarily in the order shown.

A. Executive Summary

This section describes concisely the critical facts, significant findings, and recommended actions.

B. Policy, Legal, and Administrative Framework

This section discusses the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

C. Description of the Project

This section describes the proposed project; its major components; and its geographic, ecological, social, and temporal context, including any associated facility required by and for the project (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the project's layout and components, the project site, and the project's area of influence.

D. Description of the Environment (Baseline Data)

This section describes relevant physical, biological, and socioeconomic conditions within the study area. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives

This section examines alternatives to the proposed project site, technology, design, and operation—including the no project alternative—in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. It also states the basis for selecting the particular project design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

G. Information Disclosure, Consultation, and Participation

This section:

(i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;

(ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and

(iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

H. Grievance Redress Mechanism

This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

I. Environmental Management Plan

This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

(i) Mitigation:

(a) identifies and summarizes anticipated significant adverse environmental impacts and risks;

(b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and

(c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

(ii) Monitoring:

(a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and

(b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

(iii) Implementation arrangements:

(a) specifies the implementation schedule showing phasing and coordination with overall project implementation;

(b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and

(c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment and provides recommendations.

ATTACHMENT 4: FORMAT OF BI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Table of Contents

Part I Introduction

- Construction activities and Project Progress during previous 6 months
- Changes in project organization and Environmental management team
- Relationships with Contractors, owner, lender, etc.

Part II Environmental Monitoring

- Environmental monitoring summary – summarise the previous six months monitoring data and provide explanations of any instances where environmental standards or guidelines are exceeded. Typically this will cover:
  - Noise and Vibration
  - Water Quality
  - Air Quality
  - Flora and fauna monitoring

- Recommendations are required to show how any exceedences will be prevented in the future.
- Graphs can be used in this section to show trends, however large tables of data or multiple graphs should be attached as an appendix.

Part III Environmental Management

- EMS, SSEMP and work plans. Report on delivery of documents, required amendments etc.
- Site Inspections and audits – summarise the number and type of site visits
- Non-compliance notices – summarise the details on the number of notices given out and the issues covered. Summarise the ranking of issues.
- Corrective action plans - report on timeliness of preparation and completion
- Consultation and complaints – report on any consultation undertaken and list any complaints received.

Annexes

- Monitoring data
- Photographs
- Implementation report on EIA/IEE mitigation requirements

Reference	Requirement	Action to date	Action required/comment