

*For more detail on these TORs and on the status of the studies
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ALAT-ASTARA M3 HIGHWAY UPGRADE AND BAKU SHAMAKHI HIGHWAY REHABILITATION

Terms of Reference Environmental Assessment, Environmental Management Plan And Capacity Building

1. This assignment provides support to the Government of Azerbaijan (GoA) to assess and manage potential environmental impacts associated with: (i) modernization of the M3 to a 4 lane motorway between PK 75 (about 27 km South of Alat) and the border with Iran, and (ii) rehabilitation of a section of the east west highway between Baku and Shamakli. This study should allow: (i) environmental input to the selection of Preferred Alternatives for all sections along the itinerary Alat-Astara, (ii) preparation of environmental assessments (EAs) and the development of environmental management plans (EMPs) for identified sections of the itinerary Alat Astara, including associated baseline data collection, and (iii) capacity building and training targeted at RTSD (including the ESS and DMUs) to support implementation of the EMPs for Alat-Astara and Baku-Shamakhi.

Terminology

- **Bank:** means the International Bank for Reconstruction and Development (IBRD)
- **Consultant:** means the firm that will be in charge of carrying out this assignment.
- **Construction:** means all or part of the motorway once completed.
- **EA:** means Environmental Assessment. Environmental Assessment uses a screening process for each Section to determine as early as possible the extent of impact on environment and details appropriate studies and describes measures to prevent or at least minimize or compensate for adverse project impacts.
- **EMF:** means Environmental Management Framework. The EMF outlines the procedures for the environmental screening, management consultation and disclosure of Sections.
- **EMP(s):** means Environmental Management Plan. The EMP describes for each Section and within each construction contract the environmental performance measures including the requirement to ensure full implementation of the relevant EA. The EMP(s) will be drafted by the EA consultant in parallel to the current assignment.

- Engineering Consultants: means the firm or group of firms in charge of the study related to the selection of Preferred Alternative, the Preliminary Design, the Detailed Design, and the Resettlement Action Plan.
- Itinerary: means the M3 itinerary between Alat and the border with Iran.
- Motorway: means a four lane road with median strip and grade-separated intersections.
- OP/BP(s): means Operational Policy or Bank Procedure. Operational Policies are short, focused statements that establish the parameters for the conduct of operations for Bank financed projects. Bank Procedures describe how Bank staff carry out the policies set out in the OPs. Both OPs and BPs are accessible at the following web address: <http://wbln0018.worldbank.org/institutional/manuals/opmanual.nsf/textonly> . The current assignment has to take into consideration at minimum OP/BP 4.01 (environmental assessment), OP/BP 4.04 (Natural Habitats), OP 4.11 (Cultural Property) and, OP/BP 4.12 (involuntary resettlement).
- Ramsar: refers to the convention on wetlands, signed in Ramsar, Iran, in 1971. The Ramsar convention is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
- RAP: means Resettlement Action Plan. The RAP details plans and procedures for the expropriation of land and physical relocation of the people affected by the construction. It also provides all detailed information regarding the land that would be acquired to allow for the construction to take place. A sample outline for the RAP is attached under annex 2 to the ToRs.
- RPF: means Resettlement Policy Framework. RPF identifies the constructions that may result on negative impact on the population. It then defines policies procedures and institutional arrangements to be implemented regarding resettlement matters.
- Road Study: means, depending on the context, the selection of Preferred Alternative, the Preliminary Design, the Detailed Design, the Resettlement Action Plan or all of the above.
- RTSD: means the Road Transport Service Department at the Ministry of Transport (MoT). RTSD is responsible for the design and for the implementation of the investment.
- RTSD/ESS: is the Ecology and Safety Sector unit at the RTSD. RTSD/ESS will be in charge of reviewing and implementing the EMP. They will be the main partners when it comes to EA design and review. The EA consultant will provide assistance to RTSD/ESS and train them to up to date standard regarding management of EA matters.
- RTSD/LAD: is the Land Acquisition Department at RTSD. They will be in charge of the design of the RAP and they will proceed with land acquisition and the implementation of

other recommendations of the RAP. The Consultants will provide assistance to RTSD/LAD when needed to design the RAP and to implement it. The Consultants will have to provide constant on the field training to RTSD/LAD as needed to ensure the professionalism of the team is up to the standards and to ensure that the team is operational and can respond to the demanding schedule attached to the investment.

- RTSD/DMU: are the District Maintenance Units at RTSD. There are xx DMU deployed in the field based at list of cities.
- RER: means Regional Environmental Review. RER was carried since the exact alignments were not known at the time of Loan approval. The RER describes the existing environment and discuss projects alternatives and identifies risks and issues to be addressed during project design and project implementation.
- Section or Sections: means a stretch of 20 to 40 km of the Itinerary. The Itinerary will be divided into 8 to 10 “stand alone” Sections by the Road Consultants depending on the location of the interchanges and on the possible temporary connection to the existing Itinerary during the construction period (3 to 5 years).

Introduction

2. Azerbaijan’s geographical position makes it an important link between the Black and Caspian Seas and between Russia and Iran. Trade with its neighbors, both transit and bilateral, is an important feature of the Azeri Economy. Economic prospects are bright on the short and middle terms, hinging heavily on the development of the oil and gas sectors. The overall GDP is estimated to increase from \$8.5 billion in 2004 to \$22.2 billion in 2008, with non oil GDP increasing from \$5.7 billion in 2004 to \$10 billion in 2008¹. With much of the non-oil trade being small size shipments transported by road to neighboring countries, access to international markets requires the provision of suitable road transport infrastructure on corridors, ready to meet mid-term strong traffic increase, to replace the presently narrow, low quality roads.

3. The vehicle fleet is increasing sharply together with traffic. In 2002, the total vehicle fleet was 517,000². About 12,000 vehicles were imported in 2003 and 37,000 in 2004. This trend should gain further momentum following the strong growth of the GDP, as the middle class should widen and get broad access to car property. Traffic on the M3 from Baku to Astara is currently about 10,000 vehicles per day (vpd) between Baku and Alat, falling to around 7,000 vpd after Alat and then ranging between 3,000 to 5,000 vpd near the Iranian border. Anticipating a growth in the economy (and thereafter of road traffic and the vehicle fleet), the GoA is considering modernization and expansion of the M3 to a 4 lane motorway with grade-separated intersections and bypasses around key towns, and rehabilitation of a section of the east west highway.

¹ World Bank, *Program Document for a Proposed Poverty Reduction Support Credit to the Republic of Azerbaijan*, Annex III, April 2005.

² 43 passenger private car per 1,000 inhabitants, which is very low by comparison with European norms. It was 35 in 1995 and 39 in 1999.

4. The Highway Two Project supported by the World Bank will finance the full design and upgrade of the M3 motorway between Alat and South of Masally (and the selection of Preferred Alternative for the entire itinerary including the Sections South of Masally to the border with Iran). It will also support the rehabilitation of a 124 km section of 2nd category road linking Baku to Muganli, a village to the west of Shamakhi. The itinerary will be divided into eight to ten Sections, or 'sub-projects'. Works are expected to start by March 2006 with realization of the first year's program comprising rehabilitation of the Baku-Shamakli road and upgrade of a section of 22 km south of Alat between PK 80 and PK 102. Construction in the first year would be within the existing right of way and without major environmental issues. Construction of the rest of the itinerary (that is between PK 102 and South of Masally) will take place over a 3 to 5 year period starting in spring 2007.

Description of the Corridor and Progress with Environmental Assessment

5. In support of these programs and in compliance with national requirements and the Bank's safeguard policies and procedures³ a Regional Environmental Review (RER) and Environmental Assessment and Management Framework (EMF) have been prepared. The RER covers the entire itinerary. The RER describes the existing environment, discusses and compares project alternatives, and identifies risks and issues to be addressed during project implementation. The EMF outlines procedures for environmental screening, management, consultation and disclosure related to the proposed sub-projects. In accordance with the EMF, site specific EAs and EMPs will be developed for each sub-project in line with national requirements and the Bank's safeguard procedures. Site specific assessments and management plans are currently under preparation for the first year's work program.

6. The 240 km long M3 motorway between Alat and Astara runs south from Baku through 7 administrative districts to Iran. The environment of the study corridor is diverse ranging from less populated dry semi desert in the north to more densely populated areas in the southern lowlands (including swampy areas) and foothills of the Talysh Mountains. Coastal sea plains dominate ranging from 10 – 40 km width in the north to between 2 – 4 km width in the south between the sea and the foothills of the Talysh Mountains. Mud volcanoes stand out in the plain in the first 30 – 40 km south of Alat, and the Kura-Talysh area is known for seismic activity with earthquakes registering magnitudes of between 6 and 7 on the Richter scale.

7. There are many rivers, canals, and wetland systems in the corridor as well as some lakes and mineral springs. Flooding is common especially on the Kura River. Numerous protected areas and other significant natural sites of both national and international importance are found in the study corridor. Biodiversity is high and fish resources are abundant. The southern area is largely agricultural. Tea plantations abound, vegetable growing is common as is viticulture. Lankaran is a developing industrial region. Cultural heritage is rich with archaeological finds dating back to the Neolithic period.

8. The 45 km section between Yenikand and Shorsulu is heavily influenced by agriculture and is criss-crossed by a dense network of drainage and irrigation channels and collectors. There is no

³ Including OP/BP/GP 4.01 *Environmental Assessment* and OP/BP 4.12 Involuntary Resettlement.

evidence that valuable or sensitive natural habitat that could be directly or indirectly impaired by construction and operation of a new road if appropriate management measures are employed and road design takes account of the existing water regime. South of this section, two alignments (direct and railway alignments) are under consideration for traversing the area between Shorsulu and Masalli and both options route through existing natural wetlands.

9. The 'direct' alignment of 52 km includes a 12 km section that routes through the Madmudchala and Akhchala wetlands, Important Bird Area (IBA) sites that are proposed for future Ramsar designation but are currently unprotected. The 'railway' alignment is 55 km long and includes an 11 km section between Mugan Channel and Uzuntapa that runs in parallel and approximately 2 – 3 km to the northwest of the railway line and that also routes through the Akhchala wetland. The first 23 km of the 'railway' alignment up to the Mugan Channel runs through irrigated land and the final 30 km after Uzuntapa crosses largely agricultural land gradually becoming more densely populated to the south. A number of tree plantations could be affected in this latter section depending upon the final alignment selected.

10. The Madmudchala and Akhchala wetlands provide natural habitats for numerous rare and endangered wildlife species and have significance as a buffer zone for the adjoining wetlands that form part of the Gizilagach State Reserve, an official Ramsar site located 3 – 5 km from this area. The water balance in the Akhchala wetland is unstable and under constant threat of drying out. Controlled hunting is permitted here and there is pressure from poaching and fishing.

11. Routes through these wetland areas have significant potential for adverse environmental impacts including large scale sedimentation due to construction on unstable ground, habitat fragmentation and the creation of barriers for wildlife movement, disruption of breeding colonies for rare and endangered species and to the hydrology in the area. Natural wetlands and areas with saline soils also raise concerns for construction: saline soils are prone to collapse under load or vibration and may lead to the corrosion of steel reinforcements and also require high volumes of construction materials. These areas may contain Critical Natural Habitats as defined by World Bank safeguard policies.

12. The RER assesses the impacts associated with the 'railway' alignment to be less significant than the 'direct' alignment, due to the presence of the existing line, but notes there is no reliable baseline data on the hydrological setting, the interrelation of the railway route with the adjacent wetlands or the geotechnical requirements for road construction in terms of design and construction and their impact on local hydrology. The RER did not include any detailed field review or data gathering on hydrologic or ecologic conditions which must be carried out to fully assess potential risks and mitigating measures.

13. The most southern section between Masalli and Astara is about 60 km long. Sensitive natural areas are in the south western part of the corridor and alignments need to be carefully selected to minimize their direct and indirect impact on natural forest vegetation of the Hirkan Forest to the west of Lankaran and the Talysh Relict Forest in Hirkan National Park. A wide range of people and businesses have the potential to be impacted particularly in areas of new road construction.

14. Potential adverse construction impacts may be minimized by avoiding wildlife breeding and fish spawning seasons, developing pollution controls, implementing strict hunting controls within the construction workforce, designing drainage structures to minimize impacts on local hydrology in wetland areas and designing bridges and culverts to minimize impacts on fish habitats. Borrow pits for construction materials should avoid areas of national park or known ecological value. Material haulage also raises issues with traffic congestion, safety, noise, dust and damage to existing roads. While rail transport represents a possible alternative the cost implications need to be carefully weighed.

15. EAs and EMPs will be prepared as part of this assignment for all sections of the itinerary from PK 75 to just south of Masally excluding the first 22 km of the M3 south of Alat (PK80 – PK 102).

The First Year's Work Program

16. An Environmental Assessment and Management Plan have been drafted in accordance with the EMF for Category B sub-projects for the rehabilitation and extension to a 4 lane road of the first 22 km of the M3 south of Alat (PK80 – PK 102). These documents outline the issues and impacts associated with the rehabilitation of this section of highway to ensure that appropriate management measures are identified to prevent, mitigate and monitor environmental impacts associated with these works. Construction is planned to start in March. All works would take place within the existing right of way and no land acquisition or resettlement issues are envisaged. The final few kilometres of this section run in the immediate vicinity of the western borders of Shirvan National Park which are currently fenced. The Park was established for the protection of the Sand Gazelle (*Gazella subgutturosa*) and wintering, breeding and migratory birds. In recent years, the population of the Sand Gazelle has significantly increased and individuals and herds are now also found outside of the park border. Other protected or sensitive areas or sites do not exist in the possible area of influence of the proposed intervention.

17. An Environmental Assessment and Management Plan is currently under preparation in accordance with the EMF for Category B sub-projects to rehabilitate a 124 km section of M4 road linking Baku to Muganli, a village to the west of Shamakhi. As well as many long straight sections through areas of unpopulated semi desert the road includes a number of steep winding sections through mountains with tight blind corners. Sections of this road are known for unstable ground and landslide conditions, and flooding is reported to regularly affect Maraza town. The rehabilitation effort will take place within the existing right of way (ROW). The first section (12 kilometers) may include an expansion of the road from 2 to 4 lanes to accommodate very high traffic, though the risks are still considered as commensurate with a Category B rating for EA in this segment. Within the ROW, some sections of tree plantations and shrubs that fall under the ownership of the State Forest Fund may require removal. There are likely to be temporary and short term impacts associated with construction on the local population such as noise, heavy vehicle traffic, dust, traffic disruption and loss or impaired access to properties adjacent to the ROW but no impacts on cultural properties are anticipated. Careful planning and management is required to ensure that breeding sites near the river Jeyrankechmez for the globally threatened Lesser Kestrel are not affected by construction activities and that sites selected for material

extraction do not impact Important Bird Areas in the region. Preparing EAs and EMPs for the 124 km section of M4 road linking Baku to Muganli, is not part of the assignment.

Overview of the Assignment

18. The assignment consists of three phases:

- (i) *Phase 1*, to provide environmental input to the selection of preferred alternatives for the M3 itinerary south of PK 75 to the Iranian border (the section from PK80 – PK 102 is excluded from this analysis);
- (ii) *Phase 2*, to prepare sub-project EAs and Environmental Management Plans (EMPs), including related baseline studies, for sections of the itinerary between PK 75 and south of Masally on the M3 highway (the section from PK80 – PK 102 is excluded from this analysis);
- (iii) *Phase 3*, to assist RTSD to strengthen their technical capacity to manage environmental and social impacts related to highway rehabilitation and development for all sections of the itinerary along the M3 between PK75 and south of Masally and on the east west highway between Baku and Shamakhi.

19. The schedule for the three phases is demanding. It is very important adequate resources are available early in the assignment to meet the timelines established by RTSD (see Schedule and Resources).

20. A detailed description of each task is provided under ‘Scope of Services’.

Consultant’s Counterparts and Interference with Others Studies

21. The “Highway II Project” falls under the responsibility of the Ministry of Transport (MoT) and will be implemented by the Road Transport Service Department (RTSD) with the assistance of a Project Implementation Unit (PIU). The PIU has already been established to implement a previous project financed by the Bank (the Highway Project Credit AZ-3517⁴). The PIU will be the main counterpart for the Consultants. The PIU will assist the Consultants during this assignment and will coordinate the review and approval of interim and final reports prepared by the Consultants.

22. The Ecology and Safety Sector (ESS) of the Road Transport Service Department (RTSD) is a relatively new department within RTSD that has responsibility for the implementation of the EMF including the coordination and implementation of studies and management plans for sub-projects as well as related consultation and disclosure activities. The ESS is also responsible for liaison with the relevant ministries and agencies regarding environmental approvals and clearances. The District Maintenance Units (DMUs) within RTSD play a role in the day to day supervision of construction and oversight of the implementation of the environmental management plans. The consultants will support the ESS and DMUs in the implementation of these responsibilities.

⁴ Information on this project available at http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000104615_20050608112709

Interface with Engineering Consultant

23. An Engineering Consultant will be engaged in parallel with this assignment to complete the overall selection of preferred alternatives for the entire itinerary, as well as the preliminary and detailed design for identified sections of the itinerary. It is important that the two consulting teams cooperate closely to maximize the quality of the decision process leading to the selection of a Preferred Alternative and to agree on mitigation measures. The Engineering Consultant will oversee the selection of a Preferred Alternative in Phase 1 and the Consultants engaged for this assignment will therefore work closely with and provide input to the Engineering Consultant on the environmental aspects of the preferred alternatives study (see Phase 1). The Consultants will maintain close links throughout other works, including the detailed design, and preparation of bidding documents. It should be noted that the Engineering Consultant will on the following sections of the itinerary: on the M3 between PK 75 to PK 80, and from PK 102 to the border with Iran. They will not work on the Baku-Shamaki section of the east west highway.

Project Approach

24. All EAs, EMPs and other environmental studies will be prepared in line with relevant national and international requirements and the Bank's policies on safeguards and the disclosure of information, including but not necessarily limited to OP/BP 4.01 Environmental Assessment, OP/BP 4.04 Natural Habitats, OP 4.11 Cultural Property, and OP/ BP 4.12 Involuntary Resettlement. The RER includes a review of the legislative framework.

25. The Consultants will maintain a library of all environmental and social documents, reports, maps, working papers, and other reference material used on and created in the course of this assignment for use by the PIU and RTSD and eventually for controlled access by the public upon request. Reports and background documents that could be disclosed should be available for downloading by the public from a dedicated project web site. The web site will be located on a server computer identified by the PIU.

26. A CD-ROM suitable for public distribution will also be prepared that includes materials that may be disclosed at that point. The copyright of all project materials will remain with the PIU.

Scope of Services Phase 1
Environmental Input to Analysis of Alternatives for the M3 from PK 75 to PK 80
and from south of PK 102 to the Iranian border

27. An analysis of alternatives will be prepared by the Engineering Consultants engaged in parallel with this assignment. The Engineering Consultants will as a minimum provide an assessment of the following alternative routes during the preferred alternatives study⁵.

- Section 1 between Alat and Yenikand
- Section 2 between Yenikand and Salyan
- Section 3 bypass of Salyan
- Section 4 between Salyan and Shorsulu
- Section 5 between Shorsulu and the possible connection with Jalilabad road
- Section 6 between the connection with the Jalilabad road and the possible connection with the road to Masalli
- Section 7 between the connection road to Masalli and Leman
- Section 8 between Leman and Lenkeran
- Section 9 between Lenkeran and the border with Iran.

28. The Environmental Consultant will provide input to this study of alternatives. Some environmental and social analysis has been completed in the RER and the Environmental Consultant will be expected to draw upon this earlier work and to expand upon this work as necessary to support completion of this study of alternatives.

29. The Environmental Consultant is expected to work closely with the Engineering Consultant to explore viable options for the alignment and then to analyze them in detail prior to recommending a Preferred Alternative for each Section. The Consultants are together expected to work to systematically compare feasible alternatives to the proposed project site, technology, design, construction techniques, phasing and operation for each section. The ‘without project’ scenario should be assessed. From an environmental perspective the comparative analysis should address (and quantify where possible): the environmental impacts; the feasibility of impact mitigation; capital and recurrent costs; the suitability of options under local conditions; related institutional, training and monitoring requirements. For a given impact, mitigation measures should be detailed and associated costs should be appraised. The basis for selecting a Preferred Alternative should be clearly stated.

30. The Consultants will together propose the optimal schedule for the construction of the entire itinerary given a 3 to 5 year construction period starting in spring 2007. This should include environmental criteria and take account of any baseline environmental studies that need to be completed prior to detailed design. Accessibility to adjacent villages of the entire network of roads should be part of the criteria used to establish the investment priorities. Construction stages should contain the optimal set of improvements needed to meet the short-term as well as medium term goals for the entire itinerary.

⁵ This breakdown is tentative and will need to be confirmed by the Engineering Consultants at the beginning of their study.

31. During the study, it is expected that the Consultants will work closely with the Engineering Consultant and will support discussions of Preferred Alternatives with key stakeholders such as Ministries, chambers of commerce, etc. on environmental matters. The purpose of these consultations will be to ensure that all economic, environmental and social aspects are identified and taken into consideration during the analysis. The assignment for this first stage will end with the acceptance by the Ministry of Transport of the Preferred Alternative for each Section and of the schedule for the construction works proposed by the Consultants.

32. In addition, during Phase 1 the Consultant will work with the ESS of RTSD, and help the ESS with consultations with the Ministry of Health, relevant Local Executive Bodies, and other stakeholders involved in managing HIV/AIDS issues, to identify: i) HIV risks facing construction workers and transit traffic, as well as ii) local health services and awareness raising activities that could be utilized by RTSD to mitigate identified risks. In parallel the Consultant will develop capacity within ESS to manage these issues. At the end of the 1st phase, a short activity summary report should be submitted that describes: i) HIV risks relevant to the project and awareness raising activities that are available in project areas; ii) a list of mitigation measures that could be put in place during construction; and iii) progress with capacity development in ESS.

Scope of Services Phase II
Preparation of Sub-project EAs and EMPs, Including Related Baseline Studies, for
Sections of the Itinerary between PK 75 and PK80, and from PK 102 to South of Masally

33. The Consultant will prepare briefing materials and appropriate EAs and EMPs for sections of the M3 between PK 75 and PK 80, and from PK102 to South of Masally (approximately 8-12 sections) for submission to the Ministry of Ecology and Natural Resources Protection. The purpose of this analysis will be to ensure the environmental and socio-economic feasibility of the overall development.

34. The Consultant shall ensure that mitigation measures identified during phase 1 on HIV/AIDS issues are appropriately reflected in the EMPs that are developed together with a list of stakeholders (including their contact details) that could provide support for implementation of these mitigation measures.

35. The RER identifies a number of environmental baseline studies that are required if the preferred alternative selected between Shorsulu and Masally routes through the Mahmudchala and Akhchala wetlands. The consultant will be responsible for the completion of this baseline analysis, and other analysis that may be identified in Phase 1. A summary of specific issues identified in the RER is provided below. **The consultant will have to come early with recommendations regarding the detailed hydrology studies of the areas mentioned below as data gathering over several months (or a year) maybe required if they are not available.**

Yenikand-Shorsulu section	Regarding the design there should be emphasis on generously dimensioned and appropriately sited culverts and bridges, so as not to interfere with the existing water regime. Particularly the proposed major new bridge over the Kura River will require careful design and construction to avoid interference with the flow, which could have consequences for channel destabilization, erosion and sedimentation patterns, etc.
Shorsulu-Masally section (Direct alignment)	Should the decision-makers further consideration this option, it is necessary to undertake: (i) detailed Hydrology Study of the area, to fully understand the complex interrelationship and dependencies with the irrigation system and the minimum requirements for maintaining the ecological balance in the various wetlands; (ii) detailed geotechnical study; (iii) a full ecological inventory to assess the presence and character of Natural Habitats and Critical Natural Habitats ;and (iv) an assessment of potential impacts on aquatic ecosystems, birds, and other biodiversity issues.
Shorsulu-Masally section (alignment along existing railway)	It is recommended to undertake Feasibility Study of several alternative alignments, including their effect on habitat fragmentation in the wetlands, which would include (i) detailed Hydrology Study of the area, to fully understand the complex interrelationship and dependencies with the irrigation system and the minimum requirements for maintaining the ecological balance in the various wetlands; (ii) detailed geotechnical study; (iii) a full ecological inventory to assess the presence and character of Natural Habitats and Critical Natural Habitats ;and (iv) an assessment of potential impacts on aquatic ecosystems, birds, and other biodiversity issues. During design, it is important to aim at

	minimizing the potential impact on the strips of forest near Ahmadli and Anjali, as well as to develop specific plan for comprehensive safeguard measures during construction.
Masally-Astara section	(i) Make assessment of impact particularly on the natural forest vegetation to the west of Lenkeran (Hirkan Forest) and the Talysh Relict Forest in Hirkan National Park; fish habitats, etc; and (ii) Assess impact on HIV/AIDS situation and develop mitigation measures.

36. In addition, the Consultants will support RTSD and the PIU in ensuring compliance with national and Bank environmental review and approval procedures, consultation and disclosure requirements. These requirements are outlined in the EMF.

37. All studies shall comply with relevant national and international requirements; the Bank’s safeguard policies and the policy on disclosure of information; and the procedures outlined in the EMF prepared for the Highway 2 project. The studies shall draw upon earlier analysis contained in the RER and analysis prepared under Task I of this assignment. The majority of sub-projects are expected to be Category A (under the Bank’s safeguards policies for Environmental Assessment) and specific TORs are included in the EMF.

38. At all times the Consultants shall work closely with RTSD and the Engineering Consultants.

Scope of Services Phase III
Capacity Building and Training for sections of the M3 from Pk 75 to south of Masally
and section of the east west highway between Baku and Shamakhi

39. The capacity of the ESS and the DMUs needs to be considerably strengthened. On the job training is planned prior to Board approval to raise awareness of national and World Bank environmental assessment and management requirements, the impacts associated with highway construction and their management. This assignment will support follow on capacity building during project implementation along the M3 from PK102 to the south of Masally and from Baku to Shamakhi.

40. The Consultant(s) shall provide environmental support to RTSD (including the ESS and DMUs) for implementation of the Highway 2 Project and to support interactions with relevant Ministries and agencies. The aim of this support shall be to strengthen capacity in ESS and the DMUs to manage environmental and social impacts of highway construction, rehabilitation and implementation. This will include but not be limited to:

- (i) Provision of technical advice and guidance to RTSD on compliance with national, international and world bank standards including permitting, environmental and safety issues, and any additional issues that might arise during construction.
- (ii) Support and assistance to RTSD with environmental approval and permitting procedures.
- (iii) Support to RTSD to ensure environmental issues and mitigation measures addressed in the RER, EAs and EMPs are incorporated in the detailed design, bidding and tender documents prepared for each section.
- (iv) Evaluation of the procedures proposed by the construction contractors to manage impacts on sensitive areas and wilderness, coastal areas and wetlands and cultural properties. This should include an assessment of compliance with relevant legislation, safeguard policies and the EMP for each section.
- (v) Support and assistance to RTSD on communications and public information programs for environmental and HIV/ AIDS programs associated with this development, and with associated stakeholder forums.
- (vi) Assistance to RTSD for the preparation and implementation of a comprehensive monitoring program for construction and operation that includes the participation of the relevant stakeholders. The monitoring program shall cover issues outlined in the EMPs including those related to HIV/ AIDs. If the level of knowledge and awareness of contractors on these matters issues is found to be weak, the Consultant will organize workshop or other forums to explain the risks and mitigation measures included in the EMP.
- (vii) Development and implementation of a hands-on, field based training program and possibly other forms of training for ESS and the DMUs to help them address the environmental management, monitoring and auditing of this Highway 2 Project. The program should demonstrate step by step permitting and review processes and explain the rationale for the selection of mitigation and monitoring programs. The training should improve RTSD's ability to develop procedures for environmental management and monitoring, communications and public information.

- (viii) Compilation of environmental and social information on the highway corridors, including relevant socio-economic data and information on the final ROW.
- (ix) Provision of experienced technical interpretation as required.

41. At the end of the assignment, the Consultant should prepare a report on the lessons learned, the progress with capacity development for the ESS and DMUs on environmental and HIV/AIDS issues, and the gaps that remain.

Reporting

42. The Consultant(s) will provide the PIU with:

- (i) An inception report including a draft activity schedule, prepared for the client's review and approval prior to starting the work program. The Consultants will then update the activity schedule on a monthly basis;
- (ii) Brief progress reports on a monthly basis, including any major issues related to the timely implementation of the assignment;
- (iii) Appropriate Environmental Assessments and Environmental Management Plans for each Sub-project
- (iv) An activity summary report on HIV/AIDs
- (v) An Environmental Management Training Program
- (vi) A report on the capacity building initiative
- (vii) A summary report at the end of each phase on the results of its activities
- (viii) A project completion report summarizing the results of its activities.

43. Other reporting requirements will be agreed with the PIU at negotiations based on the work plan and time schedule provided in advance of works. This may further detail requirements relating to the provision of: (i) monthly progress reports (within 1 week of month end); (ii) environmental reports (e.g., analysis of alternatives, sub-project EAs and EMPs, etc...); (iii) reports on related public consultation activities; (iv) environmental training and capacity building activities; and (v) the assignment completion report.

44. When finalized, copies of all required documents shall be submitted in English and Azeri (7 paper copies in each language and one submission in electronic format). Four copies of the interim reports shall be provided in English and a further four in Azeri. To expedite the review and comments, all reports will be sent electronically to the Bank simultaneously. If on any report the Consultants receive comments from the PIU within 15 days, they will incorporate these comments and then issue the final version of the report. All diagrams in the reports produced should be in Azeri and English.

Schedule and Resources

45. The time available for the assignment is 15 months. It is expected to require about 30 staff months. For the purpose of preparing a proposal for this assignment, the total estimate for required staff months can be divided in the proportions indicated below.

- Input to analysis of alternatives (20%)
- Preparation of Environmental Assessments for sub-projects, including baseline studies (35%)
- Preparation of Environmental Management Plans for Sub-projects (30%)
- Training and capacity building for RTSD (15%)

46. The Consultant(s) will be expected to provide the required environmental advisory services at various places and times, as required by the PIU and RTSD. There may be unpredictable peak loads to cope with short deadlines and construction schedules.

47. The schedule for delivery of environmental studies is expected to be as follows:

- (i) One month from contract signature - the work plan for all three phases is drafted and submitted by the Consultants;
- (ii) Four months from contract signature – phase 1 (input to Analysis of Alternatives) is completed;
- (iii) Eight months from the signature of the contract the Consultants have completed phase II activities for one of the Sections
- (i) Fifteen months from contract signature - the Consultants have completed phases II and III activities.

Note: Phase 3 may overlap with the other 2 phases and is rather a discontinued support to the RTSD.

Team Composition

48. The Consultants shall propose and justify the range of disciplines to be included in the core project team and the complementary skills of short-term specialists. Inputs by foreign and local specialists should be clearly indicated. The Consultants shall name individuals to participate in specified roles within the project team and provide full curriculum vitae and any other information considered relevant. The Consultants are expected to have a sound knowledge of environmental and social issues linked for major highway projects and relevant previous experience in the environmental assessment and management of highway projects in the region.

49. The Consultant(s) will be expected to have: (i) significant knowledge of the social and environmental issues related to route selection to establish a right of way for a major highway; (ii) significant knowledge of environmental and social assessment, management and consultation for major infrastructure projects for highway design and construction in accordance with internationally accepted procedures including the policies and procedures of the World Bank; (iii) significant experience in organizing and conducting environmental supervision of highways projects; and (iv) significant experience in environmental training and capacity building in the transport sector.

Coordination, Consultation and Disclosure

50. RTSD (through the PIU) will inform the Consultants on their policy regarding disclosure of information to the public including the Bank's requirements. Information campaign on how to disclose the outcome of the various studies will be discussed with the Consultants. The Consultants will be in charge of preparing materials for public consultation efforts linked to the environmental and HIV/ AIDs program and will assist RTSD during these consultation activities (see also phase 3).

Documentation Available to the Consultants

51. RTSD will provide free of charge all previous relevant studies that were carried out to ensure the timely completion of this assignment. This will include information free of charge on existing field works and any engineering and environmental studies that are available for the existing road. The following documentation and maps are available to the Consultants:

- Terms of reference for the selection of preferred alternatives, preliminary design, detailed design and related studies

[PIU/ RTSD to complete]

Annex 1 Map

