

**Report**

**Independent Review of the Environment Assessment Report and  
Environment Management Plan of  
Tovuz bypass Project**

**Introduction**

The Government of Azerbaijan has received a credit from the International Development Association (IDA) and wishes to apply part of the funds for the construction of a bypass around the city of Tovuz.

In accordance with World Bank safeguard policies and procedures, OP/BP/GP 4.01 *Environmental Assessment*, construction of the Tovuz by-pass has been classified as a Category "A" project for environment assessment purposes, requiring the preparation of a detailed Environment Assessment (EA) and Environmental Management Plan (EMP).

Preparation of the EA and EMP is the responsibility of the Borrower and as part of the feasibility study both of the documents were prepared by the Finnroad Ltd. Company.

To meet the Bank's requirement for an independent preparation of the EA for Category A projects, the Bank and the Road Transport Service Department (RTSD – the Road Administration) have agreed that the documents prepared by the Borrower as part of the feasibility study can be used, provided that the EA and EMP are reviewed and updated (as necessary) by an independent Consultant to meet the required local and World Bank standards.

An independent Consultant Mr. Bakhtiyar Karimov has been commissioned to carry out an independent review and an update of the EA and EMP for the Tovuz bypass Project.

The objective of this assignment is to review the EA (including the EMP) to:

- 1) assess the integration of the EA with the Analysis of Alternatives study and the selection of the preferred routing;
- 2) verify that the work and its results comply with local and World Bank requirements; and
- 3) prepare a final EA report and EMP that is in accordance with World Bank standards.

**Meetings**

Upon his arrival to Azerbaijan on March 15, the consultant started his work by a meeting in the Project Implementation Unit (PIU). During this meeting with PIU Director Mr. A.Gojayev, a designated Coordinator of the project, as appointed by RTSD, the work scope and meetings schedule were clarified.

On the same day the Consultant visited the Road Transport Service Department (RTSD) and met with the Head of RTSD Mr. J. Gurbanov. During his meeting with the Head of RTSD Investments Department Mr. H.Veliyev, main targets of current assignment were detailed. Later on the contract between RTSD and Individual Consultant was officially signed.

The next meeting was with Mr. K. Allazov, Deputy Head of Safety and Ecology Sector of RTSD. At this meeting the Sector's activities and involvement in the realization of the World Bank financed projects were discussed. The RTSD experience, practice of Land Acquisition and

Public Disclosure Authorized

Public Disclosure Authorized

Resettlement and related issues were discussed during the meeting with Mr. G. Mammadov, Head Engineer of Azeravtoyol" Road Design and Research Institute.

On March 16 the Consultant visited the office of Finnroad Ltd. in Baku. Due to the absence of Mr. K. Saari, Project Team Leader at that time, Mr. S.Mutallimov, Deputy Team Leader gave complete information about the Contractor's work.

The Project Team Leader visited Azerbaijan for the period of March 25-29, to participate at the public Consultation meeting in Tovuz, and the Project's draft final report presentation to RTSD. In general, the Contractor finalized its services in Azerbaijan on March 31, 2005

The Consultant visited the World Bank local office where the exchange of views with Mr. F.Mammadov, Operations Officer, and Ms. G.Hajiyeva, Environmental Officer, on realization of the current assignment, took place.

To clarify the compliance of the prepared EA and EMP with local legislation and regulations, the Consultant met with: Mr. A. Gurbanov, Senior Advisor of the Cabinet of Ministers, Mr. G. Khalilov, Head of State Expertise Department and Mr. A. Aslanov Head of Sector within the same Department in the Ministry of Environment and Natural Resources., Ms. L. Tagi-zadeh, the Head, and Mr. S. Shakuru, Chief Expert of the Hygiene and Environment Protection Division of the Sanitary Epidemiology Department of the Ministry of Health. During these meetings the Project related legislation and regulations were discussed.

During the trip to Tovuz the Consultant visited all three possible alternatives of the bypass and checked the areas that might be possibly affected by these alternatives. After the Public Consultation meeting held in Tovuz, an additional artesian well on the road alignment was reported by its owner.

The meeting with representatives of Tovuz Executive Power on advantages and disadvantages of the Project implementation was held prior to the Public Consultation meeting.

#### Integration of EA with Analysis of Alternatives Study

The Project will have adverse environmental and socio-economic impacts. The EA prepared by Finnroad Ltd. provides detailed information on such possible impacts coming from the construction of the bypass road. Original design of EA was based on two separate parts: "A"- Environmental Assessment" and "B"- Socioeconomic Assessment and Land Acquisition Plan prepared by Environmental Specialist Ms. M.Poerschman (report "A") and Social Specialist Ms.U.Mustanoja (report "B"). Both experts finished their assignments and left Azerbaijan before the Independent Consultant arrived in the country. Due to this fact, the Independent Consultant had no opportunity to meet with the above mentioned experts, and did the revision and the update of the Project EA Report and EMP without their involvement.

To specify and clarify some unclear statements of the draft EA, a phone communication with Ms. M.Porschman, was arranged.

Despite the fact, that prepared EA and EMP described main potential environmental and socio-economic impacts the following parts of report were improved by Independent Reviewer:

1. Taking into consideration the direct correlation between potential environmental and socio-economic impacts, the Consultant incorporated separate reports "A" and "B" into one report. It helped to avoid unnecessary repetitions, better clarify the links

between environmental and socio-economic issues and make an objective choice between considered alternatives.

2. The original one page Executive Summary was not written as a standalone chapter, covering all related issues and activities. Due to high importance of this chapter, the Consultant wrote a new expanded Executive Summary in the format appropriate for separate distribution.
3. The Policy Legal and Institutional Framework chapter did not have full and accurate information on national legislation and regulating documents dealing with social aspects of land ownership, land acquisition and compensation, and also resettlement issues.
4. The Environmental Characteristics of the Project Area chapter had not provided enough information on a rose of winds or explanation of prevailing wind conditions and seasonal differences, which is an important and sensitive characteristics of noise, ambient air quality status in the study area. The Consultant collected the needed data from the MENR and incorporated it into the chapter.
5. The Analysis of Alternatives chapter mentioned 3 alternative road alignments plus the 'do nothing scenario'. But it did not provide enough justification why the alignment 3 was excluded from further consideration. Additional information on such issues as technical parameters and road transportation safety, land acquisition and possible resettlement issues were added to this chapter.
6. The Resettlement and Land Acquisition Plan chapter did not have complete data on numbers of affected land owners in the study area, did not supply enough information on current land price and its formation mechanism. Even though the chapter recommended the rent of lands within the road ROW, it did not provide a detailed analysis of such practice. The Consultant collected missing data and described possible scenarios.
7. Despite the fact that two Public Consultation Meetings were held by Finnroad Ltd., there was no formal feedback from the local population, including the affected land owners. The Consultant strengthened this process via publication of project materials in the local newspaper, distribution and collection questionnaire forms filled out by local population. The output of the public consultation meetings was summarized and presented in Matrix prepared by the Consultant.
8. The number of unclear statements and conclusions took additional time and effort for their clarification and correction.

Reviewed EA compares and assesses two alternate corridors for a northern detour of Tovuz town.

- Alternative 1 has a total length of 14.1 km and does not require any resettlement or destruction of infrastructure. It rejoins the M 1 to the northwest of Jalilli on the boundary of the Agstafa District.
- Alternative 2 is about 10.4 km long. After splitting from the common corridor with Alternative 1, Alternative 2 turns to the western direction, then runs to the south-west between Jallilli and Duz-Jirdahan and connects to the M1 in the south-east of Jalilli.

A 3<sup>rd</sup> Alternative was eliminated from further consideration in the early stages of the study because the required design parameters for a Category 1 road could not be met. In addition, the number of settlements constructed close to the area of this alternative, would cause a problem of population resettlement.

The existing road through Tovuz cannot be widened or upgraded to the planned future standard design for the M 1 and as a result the 'without-project scenario' cannot be recommended for consideration either.

Both study alternatives begin a few hundred meters to the west of the Tovuz Chay river bridge of the M1 and have a common corridor on the first 6.7 km of their alignment. After splitting from the common corridor, Alternative 2 continues about 3.7 km in the western direction, then runs to the south-west, and connects to the M1. Thus, analysis of these alternatives is mainly based on comparison of this part of the road alignment.

The potential *direct physical impact* that any of the 2 alternatives may entail, is expected to mainly take place inside the boundaries of the future ROW (2 x 30 m from the centerline). This area shall be acquired for the implementation of the Project, not only to allow for the construction of the 2-lane bypass but also to allow for the future upgrading of the road to a 4-lane standard. In the area of the future bridge over the Tovuz Chay the direct physical impact will affect a wider corridor due to cuts on the river bank. Additional *direct and indirect* physical impacts outside this ROW will result from the siting and operation of the contractor's yard/worker's camp, material extraction and possible transportation from the borrow pits. Both road Alternatives consider minor demolition of a forest strip and orchards.

Regarding the *human environment*, socio-economic implications of the road construction in the alternative study corridors may be severe due to the acquisition and overbuilt of large areas of private agricultural land that presently generate reliable income for many families of Tovuz and surrounding villages. Taking into consideration the additional 3.7 km length of the bypass Alternative 1 and appropriate number of population affected by land acquisition, Alternative 2 is a more preferred scenario. Both road Alternatives do not consider any resettlement of population. With respect to other aspects of the human environment, both study corridors are generally assessed as moderately sensitive to the siting and operation of a new road.

EA also considers the design alternatives. For a new bridge over the Tovuz Chay the 'low' alignment for a conventional concrete beam bridge made of 18 m long prefabricated reinforced concrete beams, and the 'high' alternative for a cast-in-place reinforced concrete bridge were considered.

Based on the current construction experience the construction cost of the first alternative, is estimated to be about \$2.8 million instead of estimated cost of \$3.8 million for the second alternative. But the large excavation volume of the first alternative makes it almost \$2.0 million more expensive than the second alternative.

Finally, based on favorable results of analysis of environmental and socio-economic impacts and lower cost, the shorter Alternative 2 with 'high' alternative bridge over the Tovuz Chay river was selected as preferred alignment over the Alternative 1.

#### Public Consultation

To comply with WB and national EA policies, and to help RTSD achieve public acceptance for the Project two public meetings were held in Tovuz.

The first of these official meetings was convened at the very early stages of the Project. After its announcement in the local newspapers on December 25<sup>th</sup> the meeting took place in Tovuz on December 28<sup>th</sup> 2005. A total of 62 people (residents of Tovuz and neighboring villages and Municipality officials) attended this meeting and were informed about the project objectives and alternative solutions under consideration.

The second meeting was convened on February 25<sup>th</sup> and attended by about 80 local residents. The MENR regional office representatives were also officially invited, however, they did not attend. During this meeting a presentation was made on the purpose, methodology and results of the present EA, on the 'preferred solution', its potential environmental implications and the proposed environmental mitigation and monitoring measures. There was also a CAD-presentation, to visualize the design of this 'preferred solution'. However, no specific comments were made on both of these presentations.

In order to strengthen the public consultation process according to the World Bank Operational Policy, the Consultant recommended to RTSD and assisted with the realization of the following public meetings:

1. Public Consultation Meeting was held in Tovuz on March 26, with participation of representatives of Local Executive Power, Contractor, Ministry of Environment, NGO's, and local TV. The meeting announcement and the summary of the prepared EA and EMP were published in the local newspaper "Tovuz" prior to the public meeting and population had an opportunity to become familiar with the Project results in advance. Presentation of EA and EMP was accompanied by PowerPoint presentation prepared by the Contractor. A copy of the prepared draft EA was given to local authorities to guarantee the access of affected groups. Totally 104 person participated in this meeting. 25 participants filled out the forms and expressed their opinions, concerns and proposals regarding the Project implementation. Some recommendations and proposals for EA and EMP update were given during the meeting. Draft EA report is available for affected groups and local NGOs in the District Executive Power.
2. The formal presentation of EA and EMP to RTSD was held by the Contractor in Baku on March 30, with participation of the World Bank mission led by the Mr. Le Ber Senior Transport Specialist and attended by RTSD and PIU representatives. During the presentation the RTSD representative expressed his complaints and gave several suggestions on the content of technical, financial, environmental, and social problems related to the design. There were also some recommendations and proposals for EA and EMP update.
3. The Public Consultation Meeting was held on April 8 in Aarhus Public Environmental Information Center, located in Baku, with the participation of local NGO's dealing with environmental issues. The announcement of the meeting and an invitation for public participation was published in the local newspaper "Ayna". More than 70 members of the Forum of environmental organizations were invited via the Internet network. The summary of prepared EA and EMP was e-mailed to Forum members and delivered to the Center prior to the meeting. This way NGO's had an opportunity to become familiar with the Project results in advance. Despite this invitation only 12 persons attended the meeting. During the meeting the presentation of EA and EMP was accompanied by PowerPoint presentation prepared by Contractor. Some recommendations and proposals for EA and EMP update were given during the meeting. Draft EA report is available for local NGOs in the Aarhus Public Environmental Information Center.

#### Review/ Update the EA / EMP to Ensure Compliance with Local and WB Requirements

The Consultant reviewed the EA / EMP and updated both Project documents in order to comply with relevant local and World Bank requirements.

The original EMP comprised two separate parts: 1) Environmental Mitigation and Monitoring Plan and 2) Socioeconomic Monitoring and Mitigation Measures during Design, Construction and Operation, prepared by two different experts. Taking into consideration the direct correlation between these impacts these separate parts were incorporated by the Consultant into one EMP.

The original EMP needed substantial revision in terms of formatting, terminology and substance. For example, Report contained multiple references to the same document, e.g. environmental management programme, environmental management plan, mitigation and monitoring plan, safeguards plan, and it caused confusion in understanding the general content. In order to avoid this misconception a simple and clear classification was used.

This updated EMP comprised 3 interconnected parts: Mitigation, Monitoring and Institutional measures. The Monitoring Plan was specified and updated in order to determine the priorities and concentrate main sources and efforts on them. The Institutional measures section was introduced to clarify the current environmental situation in the area, and measures for successful implementation of the Project.

The EMP new structure allows to avoid unnecessary repetitions, better clarify links between environmental and socio-economic issues, and better identify measures for the elimination of adverse environmental or social impacts during design, construction and operation phases, or for their reduction to acceptable levels.

#### Review/ Update the LAP to Ensure Compliance with Local and WB Requirements

The Consultant reviewed the LAP and updated it in order to comply with relevant local and World Bank requirements. Due to its high importance, the Consultant wrote a new expanded version of LAP in the format appropriate for separate distribution.

The current Report as well as the final version of updated EA/EMP and LAP were translated into the Azerbaijani language and submitted by the Consultant to the RTSD.