

Republic of Uzbekistan**Pap - Angren Railway Project****Executive Summary of the****Environmental Impact Assessment and****Environmental Management Framework****Project Description**

The proposed project will support UTY to build a single 124 km track rail link between Angren and Pap including a 19.2 km rail tunnel through the Kamchik Pass. It will also support the reconstruction by UzEnergO (UZE) of Obihayot power substation and the construction of power distribution lines from Obi-hayot power substation to traction power substations (TPS) at Koshminar and Pap, and from power transmission line Angren - Obi-hayot to TPS Sardala to secure reliable power supply for the new railway line. The government and UTY will provide the bulk of the financing for the project. The Bank will finance the signaling, electrification of the railway line, electric power distribution line, track maintenance equipment, and technical assistance to UTY. Most of the disbursement will occur in the second and third years of the project life because the electrification and the signaling investments will take place after all other civil works are completed. Retroactive financing under standard conditions may be considered to provide UTY and UZE with the possibility to start electrification and signaling activities as soon as possible. Eligible activities and amount of retroactive finance if any will be discussed and agreed at the appraisal stage.

Environmental Impacts and Safeguards Policies

Because of the significance of its potential impacts, the project is rated Environmental Category A as per World Bank environment policy OP/BP 4.01 Environmental Assessment.

World Bank OP/BP 4.01 Environmental Assessment is triggered. The activities under the project are large-scale and involve various types of works and activities: operation of borrow pits, large-scale earthworks, rock blasting, construction of the tunnel, access roads, power transmission lines, etc. All the above activities require full Environmental Impact Assessment (EIA). This is consistent with the requirements under national law of Uzbekistan. According to the List of activities under which the state ecological examination is conducted (Appendix № 2 to the Decree of the Cabinet of Ministers of the Republic of Uzbekistan of December 31, 2001 № 491) "About State Ecological Expertise", railways of national significance refer to high environmental risk (the 1st category of impact on environment), for which the full-scale EIA should be carried out. Also, technical assistance under the project will have to be reviewed from the perspective of potential environmental impacts that may take place as a result of implementation of plans/strategies/recommendations developed within the framework of the TA.

Scope of the EIA and the EMF

The Environmental Impact Assessment (EIA) for construction of the railway line and the tunnel was prepared by the Design Institute Boshtransloiha (Uzbekistan). The EIA included the substantive independent inputs/views and conclusions of the specialists from 18 environmental, academic research, nature conservation institutions, agencies and organizations. Consistent with Uzbekistan law, first a preliminary (scoping) EIA was prepared and reviewed by the State Expert Review, which specified additional detailed studies required. The Bank also reviewed this preliminary EIA and provided comments. The EIA was updated taking into account comments from both the State Expert Review and the Bank. The final EIA was approved by the Uzbekistan authorities, but it was determined that some additional information and mitigation measures were required to meet the Bank's requirements as set out in OP 4.01. Rather than revising the already approved EIA, this additional information has been incorporated into the Environmental Management Framework (EMF) for the project, as described below.

The EMF covers all other components and activities in the project, including the railway line and tunnel, as well as electrification/signaling, construction of power transmission line, operation of borrow pits, river channeling works, bridges and overpasses, etc.). All of the physical works (under Components 2 and 3) will require preparation of stand-alone EIAs under Uzbekistan law, and the EMF provides further guidance for ensuring that these EIAs and site-specific EMPs also fulfill the requirements of OP 4.01.

In accordance with the EMF, preparation of site-specific EIAs and EMPs to be prepared will take into account: (i) the main types, extent, location, duration and reversibility of environmental impact, expected as a result of implementation of project activities; (ii) measures of response: prevention, minimization, mitigation, reduction or compensation of negative impacts; (iii) rules effective and timely response; and (iv) mechanisms for implementation of such rules, particularly in human resources, financial resources, responsibilities and competence. Annex 3 (see also Annex C, OP 4.01, format and content) contains the standard table format of EMP, meeting the requirements of the World Bank.

The EMF also serves as a supplemental EIA for the railway line and tunnel, as noted above to meet the requirements for a Category A project under OP 4.01. It summarizes the important information from the existing EIA, including baseline data and potential impacts and mitigation measures for all project components, and also provides the additional information and analysis needed (e.g. details on methodology, Mitigation and Monitoring Plans, capacity of the implementing institutions, etc.). Therefore, the EMF will serve as the primary environmental safeguards instrument for the project, to be disclosed and provided for public consultation prior to Appraisal.

An Environmental Audit of works carried out previously will be undertaken and its findings will be included in the final version of this EMF. Previous visits to ongoing construction sites by the team's environmental specialist indicated that there were no significant issues that would require a suspension of the works, but did identify some needed improvements. The Environmental Audit will be reviewing progress in these areas and will provide specific recommendations for remedial measures. An Environmental Action Plan based on these recommendations will be prepared, agreed and included in the EMF prior to negotiations.

World Bank OP 4.12, Involuntary Resettlement. This policy is triggered as the project will require some land acquisition and resettlement. The preliminary assessment of the scope of land acquisition and resettlement has been completed by UTY. The available data indicates that approximately 270 households including farms plots and a few commercial entities are affected. The majority of project affected people are ethnic Uzbeks (90 percent) followed by ethnic Tajiks (8 percent) and Uygurs (2 percent). This distribution generally mirrors the demographics of the region. The average households consist of 5 people. The majority of those employed are currently benefiting from the nearby factory, ore mining and textile facilities. UTY is conducting a socio-economic study to gain a more detailed understanding of the potential impacts on the project affected people and broader social impacts of the project, particularly on women and the most vulnerable. An RPF has been prepared for the project, as well as a RAP covering both land acquisition that has already been carried out and future land acquisition that is already known. As some gaps have been identified between the resettlement implemented to date and the requirements of OP 4.12, a Resettlement Audit was undertaken and an action plan for remedial measures has been prepared and included in the RAP. It is possible that the need for a small amount of additional land acquisition will be identified based on detailed designs. In this case, a separate RAP will be prepared at that time, based on the RPF.

World Bank OP 4.11 Physical cultural resources. Implementation of the project takes place in part on the territory of ancient settlement Chilhujra of VI century BC – IV century AD, which is, according to scientific conclusion of the research staff of the State Hermitage Museum (St. Petersburg, Russia), of great historical importance and value for archaeology, history and culture of Ferghana valley, Uzbekistan and the entire Central Asian region. The works on the alignment in the fall of 2013 resulted in some damage to the site¹. When this became known, UTY was required to stop the works to prevent further damage and prepare the Action Plan for Physical Cultural Resources. Such Action Plan was prepared as a separate document and consulted with authorities responsible for protection of historic and cultural heritage. Under this Action Plan, the site will be surveyed by specialists in archaeology according to legislation of Uzbekistan. If the survey indicates the need for any additional protection measures, these will be put in place before any additional works are carried out that could impact the site. The Action Plan indicates that the alignment should avoid historic and cultural sites as much as possible.

Applicability of OP 7.50 Projects on International Waterways: The issue of applicability of OP 7.50 has been extensively discussed with the Uzbekistan Railway Company (UTY) in event of (i) water abstraction from a tributary of an international waterway being planned and/or occurred, and (ii) pollution or other downstream impacts on a tributary of an international waterway due to river channelization/straightening associated with the project activities. The UTY formally confirmed that no abstraction of water from the Akhangaran and Chadak Rivers (tributaries of Syrdarya River that has a status of international waterway) is planned or necessary. The sources of water supply for all proposed construction activities of the Project will be existing wells (stations Sardala, Razezd 2, Razezd 3 and Razezd 4), water tanks (stations Razezd 1 and Temirjulobod), and existing piped town water supply (stations Angren, Uglesborochnaja and Pap). As outlined

¹ The alignment makes a cut through the central section of the historic site. The dimensions of the cut are 50 m (width) x 120 m (length). Approximately 10 % of the historic area was damaged (see picture on p. 58).

in this EMF, precautions will be taken to ensure that there is no impact on the rivers from sewage effluent, erosion from works, or runoff from material stockpiles or machinery. In addition, it has been confirmed that construction of bridges, embankments, and channelization/straightening activities in the area of Akhangaran River does not trigger OP 7.50. Therefore, the policy on international waterways OP7.50 is not triggered.

Railway Location and Discussion of Alternatives

The railway start/end points are cities of Angren and Pap. Angren is located in Tashkent oblast and has population of 127 thousand people. The city used to be a center of Uzbek coal industry. Pap is a rayon center with population of 25 thousand people, located in the North-West of Fergana Valley. Within Angren, the project will use the right of way of the existing railroad and new construction "greenfield" section of the project will start from the coal mining area to the East of Angren. The Northern section of the railway (i.e. section between Angren and tunnel portal at km 36) will go along Akhangaran water reservoir and will cross/overpass (bridge or embankment) at least one of the reservoir's small bays. The alignment runs through Akhangaran river canyon/ravine with very diverse and rough topographic profile. The tunnel will start at km 36 and end at km 57 nearby the river Sansalak-Sai. Between km 63 and km 85 the road will go along Gulistan, Altykan and Chadak villages and the territory of Almalyk ore mining works (non-ferrous metals). Within the Southern section (i.e. section between Chadak and Pap) the railroad will go through agricultural land. Starting km 95, the rail road will enter agricultural non-arable (currently classified as pastures). The last 20 km of the railroad alignment before entering Pap will be through agricultural arable land. No part of the alignment passes through protected areas or other significant natural habitats or areas of important biodiversity value.

Four alternative alignments were considered at initial stage of alignment identification and two alignments were considered at pre-feasibility stage. The tunnel fall/decline in both options is 20/1000. Option A (preferred option) is 123 km long and has two tunnels (19.1 km and 0.2 km) with the range of tunnel altitudes between 1320 m and 1485 m. Option B is 146 km long, has 14 tunnels with total length of 19.5 km with the range of tunnel altitudes between 1799 m and 1895 m.

Impact Mitigation and Environmental Management

For most construction and rehabilitation works under the proposed project, potential adverse impacts of the proposed activities on the environment would be mainly limited to the construction stage, and they include large-scale earthworks (including blasting), soil erosion, generation of noise, air, water, and soil pollution and generation of waste.

One significant potential issue that was identified was radioactive hazard during the tunnel construction in areas known for uranium mining. However, the sampling carried out to date indicates there is no excess of radiation levels in the main tunnel and shafts. A targeted Action Plan for management of the radioactivity risk, including independent monitoring and verification of radioactivity levels in the working zone and designation of sites for disposal of any radioactive materials, has been prepared and is being implemented by the tunnel contractor under the supervision of the engineering

consultants. Also the final EIA includes the action plans for: (a) management of radioactivity risk, (b) mitigation of negative environmental impacts in sensitive areas (i.e. potential pollution of rivers and streams, water protection zones), (c) management of borrow pits and sites for waste material, and (d) management of geological risks and emergency situations.

Site-specific EIAs and EMPs will be prepared for bridges, borrow pits, power lines, sub-stations, etc. The EMF provides guidance on key potential risks and mitigation measures to be included in these EIAs and EMPs.

Public consultations and disclosure of environmental documentation

The draft EMF and EIA, satisfactory to the Bank, will be publically disclosed prior to Appraisal. The public consultations will take place on October 15-16, 2014. Site-specific EIAs/EMPs for other works (aside from the railway line and tunnel) will be prepared and disclosed in publicly accessible locations in Tashkent and in project area when the respective feasibility studies are prepared and prior to the commencement of any works on site. The Client will issue a notice in local media regarding the availability of the documents and inviting comments. For works carried out in areas where there are potentially affected people or sensitive sites, the Borrower and/or Contractor will also organize local public consultations. The Environmental Audit, and the resulting Environmental Action Plan, is planned to be completed and incorporated into the EMF prior to Negotiations

Conclusions

The project has the potential for a number of important environmental and social impacts during construction and operation periods. With appropriate mitigation referred to in the EIA and EMF, particularly during the construction phase of the project, these impacts can be managed to an acceptable, moderate level. It should be pointed out that the railroad will bring numerous social and economic benefits to the communities within the area. The EIA and EMF list a number of recommendations on follow-up EIAs and EMPs, and preparation of mitigation measures.