

**SUMMARY INITIAL ENVIRONMENTAL EXAMINATION**

**Supplementary Appendix to the  
Report and Recommendation of the President  
to the Board of Directors**

**on the**

**QAISAR-BALA MURGHAB ROAD PROJECT**

**in**

**AFGHANISTAN**

**Ministry of Public Works**

**This Report was prepared by the Borrower  
and is not an ADB document.**

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## SUMMARY INITIAL ENVIRONMENTAL EXAMINATION

### A. Introduction

1. The Project is categorized as a "B" Project in accordance with the Asian Development Bank (ADB) *Guidelines on Environmental Assessment*. An initial environmental examination (IEE) was prepared. This appendix is based on the information in the IEE and summary IEE reports undertaken under the project preparatory technical assistance<sup>1</sup> on behalf of the Ministry of Public Works (MPW). The MPW approved the report in August 2004.

### B. Description of the Project

2. The Khazara Kala, Qaisar to Bala Murghab road is a part of Andkhoy-Herat road. The proposed Project will involve: (i) reconstruction and improvement 90 km of 2 lane road connecting; (ii) improvement and reconstruction 7 bridges as part of this road; (iii) improvement horizontal curve and increase embankment in several part of the road; and (iv) improvement of traffic sign by marking, cross walk, signs and other safety features. The improvement and reconstruction of the road aims to achieve a design standard with the following typical cross section: (i) for flat and rolling terrain 3.5 meters (m) width each lane, 1.5 m shoulder, and 0.5 m verges in both side of the road with total width 11 meter; and (ii) for mountainous terrain the total width will be 8 to 10 m of which the hard shoulder will be 0.5 m each.

### C. Description of the Environment

3. The Project is administratively located within Faryab and Badghis Provinces. The environmental condition of the project area along the road is briefly summarized here.

#### 1. Physical Environment

4. The road passes through several topography features, between 500 m and 1,500 m of altitude, in light mountainous terrains and sloped hillsides. From Qaisar to Bala Murghab the road passes through hilly at around km 10 to km 15; km 25 to km 26; km 60 to km 62, and km 76 to km 90. In Qaisar area, the types of soil are formed by conglomerates, pebbles, sand, and less loams. Starting from Almar, the road goes up until the crossing of the Turkestan Range, from Gormac to Murghab, the soil conditions change to more limestone. There are three rivers in the project areas: Murghab, Qaisar, and Serin Tagar. The land use of project area in Faryab province are mostly produced dryland wheat. The badghis is mostly produced rainfed wheat. Most of the project area is either grazing land, or rainfed grains. Badghis has a large amount of livestock.

#### 2. Ecological Environment

5. The vegetation along the corridor of the Project area is primarily semi-desert, which mainly consists of resistant grasses, various shrubs such as tamarisk, and sand acacia. The irrigated areas are mostly planted with grains, wheat, and other crops. Orchards and vineyards

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<sup>1</sup> ADB. 2003. *Preparing the Herat-Andkhoy Road Project*. Manila. The IEE report was prepared for 553 km road, but ADB's project will cover road improvement of the first 210 km from Andkhoy. Therefore, this summary focuses only on the area covered by the proposed ADB's project.

are common in the villages. Wheat, barley, corn, vegetable, and fruits such as grape, melon and watermelon, and potatoes dominate the vegetation in the villages along the existing road. In the valley, it is very common with acacia and pistachio plantation. However, the Project area has no special species to be considered for preservation.

6. With regard to the fauna in the Project area, several domestic animals such as camels, horses, donkey, cow, buffalo, sheep and goat as well as dogs used as shepherd are identified. Several types of birds are also found in the Project area.

#### **D. Screening of Potential Environmental Impacts and Mitigation Measures**

7. The environmental impacts associated with the construction stage include (i) disruption of traffic in the construction area, (ii) increased air pollution due to increasing dust and other volatile chemical substances from the asphalt plant, (iii) noise and vibration, (iv) disruption of the water system due to construction of bridges and other earth work particularly in the valley areas, and (v) potential landslides associated with elevating some part of the road. These impacts will all occur only during the construction period. Mitigation measures to minimize these impacts include (i) rerouting traffic with clear signs; (ii) maintaining optimum moisture content during soil handling, spraying water to minimize dust, and maintaining a safe distance between the asphalt plant and public facilities including education facilities; (iii) strictly controlling construction works that create noise and vibration by prohibiting night work in residential areas; (iv) locating the hot-mix and crusher plants at least 1 km from residential areas; (v) pumping stagnant water, and providing adequate drainage system; and (vi) stabilizing road embankment side slopes. These measures will be included in the contract document for the civil works. These impacts are all temporary and manageable.

8. Camps for construction works will be established in areas that are not prone to social conflicts. The camps will need to be complete with adequate sanitation facilities and waste management to avoid disturbance to the communities. Construction materials that contain hazardous and toxic substances such as petroleum, and asphalt should be stored in proper places and managed in accordance with the relevant international standards.

9. The environmental impact associated with the operation of the Project is mainly on traffic safety, therefore, adequate traffic signs and physical barriers to reduce motorist speed must be provided. This measure needs to be strictly enforced particularly in villages and towns along the road corridor, where markets usually take place.

#### **E. Institutional Requirement and Environmental Monitoring Plan**

10. **Institutional Framework and Responsibility.** Implementation of mitigation measures during construction will be the responsibility of the contractor. An environmental engineer, who will be hired as part of the consultant team to implement the Project, will help the Ministry of Public Work (MPW) particularly Project Management Unit and Project Implementation Unit for preparing contractual documentation so that the bidding documents, and other contractual obligations of the contractor clearly identify environmental responsibilities and describe penalties for noncompliance. The environmental consultant will also be responsible to supervise and monitor the implementation of mitigation measures during the construction stage. The MPW will be responsible for implementing overall environmental monitoring and management as part of the IEE.

11. **Environmental Monitoring Plan.** The IEE identified the generic monitoring and management plan, which will be part of mitigating adverse impacts. However, a specific site monitor will be identify during the detail engineering study. Annual reports in implementing the monitoring and management plan will be submitted to ADB and other relevant Government agencies.

#### **Public Consultation and Information Disclosure**

12. Public consultation during the preparation of the IEE was done in a very informal manner with the population living along the road project. For this section of the road, the consultation was done in Gormac and Murghab towns. In general, consulted communities did not show any objection to the proposed improvement, and did not have any particular concerns about the potential impacts associated with the Project. Therefore, MPW should carry out a public consultation during project implementation, particularly prior to the start of the construction.

#### **F. Findings and Recommendations**

13. The IEE study shows that environmental impacts associate with this proposed Project are mostly occurred only during the construction period and the practical mitigation measures are available. With regard to the project implementation, the proposed mitigation measures are manageable. Therefore, a full environmental impact assessment to assess further impacts for roads involved in this Project is not required.

#### **G. Conclusion**

14. The Project will improve existing roads. The overall IEE finding is that the Project will not cause significant environmental problems and potential adverse impacts are manageable. However, the detail monitoring plan needs to be prepared during the engineering design and continued environmental monitoring should be carried out. Annual report on implementing environmental monitoring plan will prepared as part of project implementation report.