# Executive Summary Environmental Impacts Assessment and Environmental management Plan for China Inner Mongolia Transport (and Trade Facilitation) Project-P068752

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Inner Mongolia Communication Bureau

### A. BRIEF DESCRIPTION OF THE PROJECT

This project comprises (1) 190 km first class highway from Hailar to Manzhouli toward the national border to Russia, (2) construction of a 8 ha physical distribution center (PDC) in Haidong Industrial Estate, eastern part of Hailar City, and (3) Highway Network Improvement Program in Poverty Areas (HNIP), where five road sections, 430 km in total, will be improved. The EIA and EAP cover all of these components.

# 1. The Highway Component

The proposed project is one part of the plan of "Five North-South Lines and Seven West-East Lines" of China's state highways, as well as the important component of the first west-east line of Inner Mongolia's plan for "Three West-East Lines, Nine North-South Lines and Twelve Exits". It is also the main highway section going from the west to the east planned recently by the autonomous region, as the main framework of the highways in Inner Mongolia and the main passage connecting Hulunbeier League and other provinces and regions in the east of China. This line is also one main line connecting China and Russia. Refer to Figure -1 and 2.

The starting point of this project is the end of Yakeshi-Hailar Highway and the ending point is the new Manzhouli Highway Port. The total length of the first grade line in the recommended scheme is 190km, belonging to plain and slight hilly area. The line goes through Chenbaerhu Town (Bayankuren), Xinbaerhu Zuo Qi, and Manzhouli City. The connection line with East Wuzhuer is 20km. One 2km-long connection line is set up respectively to link with Chen Qi Interchange and Zalainuoer Interchange. The Construction Scale and the Technical Criteria of the Proposed Project are shown in the EIA.

According to on-site investigation on the main control points, and on the basis of consultation with local governments and related departments along the line, five possible construction alternatives (A, B, C, D, E) have been identified. Comprehensive analysis in respect for the engineering, economic and environmental aspects has been done and this EIA suggested adoption of the Positive Line option, which is in consistence with the Feasibility Study.

# 2. The Physical Distribution Center Component

A physical distribution center (PDC) will be set up at Haidong Industrial Estate, 10 km east of Hailar City. The PDC will be used as a truck terminal where imported goods are re-loaded from Russian trucks to Chinese trucks and vise versa because Manzhouli Port, the second largest port in China, does not have enough facilities to change trucks and the Russian trucks are not allowed to enter Chinese territory beyond Hailar. The total land area occupied by the PDC is 24.6ha. The designed handling capacity of the Center is 0.8~1 million t per year. The construction area of house buildings is about 9,000 m², including comprehensive offices, various storages (heating warehouse, refrigerated warehouse and simple storage), motels and auxiliary facilities, etc. The storages shall be ordinary storage with 8m heights piling three-layer of goods. The height of refrigerated warehouse is 3.6m.

The EIA and EMP for the above two components project were conducted by Chinese Research Academy of Environmental Sciences and have been disclosed to the public.

# 3. The Highway Network Improvement Program in Poverty Area (HNIP)

Five sections of about 450 km in total have been selected among existing highways to contribute poverty alleviation and trade facilitation. These sections will be upgraded or rehabilitated. The EIA and EMP of this component were conducted by Inner Mongolia Environmental Science Academy and have been disclosed to the public.

### B. BASELINE ENVIRONMENTAL DESCRIPTION

The EIA has identified the following environmentally sensitive spots: (1) four residential areas with 17 to 475 households, (2) one hospital with 260 beds, (3) three seasonal rivers, and (4) Erka. This area has several wetlands, among which Dalai Lake Natural Reserve and Huihe River Natural Reserve are designated as protected areas. The Erka Wetland is not a protected area and its natural condition is not as good as the protected area, while, Erka Wetland provides good rest stop points for migrant birds. Erka Wetland occupies 4.6% of the total wetland area in the region. The wetland area impacted by the proposed highway accounts for 0.5% of the Erka Wetland and 0.02% of the total wetland in the region.

The project conducted several alternative analysis to avoid Erka Wetland but no feasible alternatives have been found because (1) Highway Designing Regulation does not allow a first grade road to go across cities, just like the existing road does; (2) the northern bound of the existing alignment goes through Zalainuoer Mineral Area, which has very poor underground conditions with many tunnels; (3) The southern bound is limited space which is only prepared for the railway development.

(4) The further southern area is Dalai Laker National Nature Reserve; and (5) the only possible alignment is on the north side of the existing alignment, i.e. Erka Wetland.

### C.POTENIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

# 1. Typical Environmental Problems by Highway

Comprehensive analyses have been conducted for air pollution, noise, and water pollution, material transportation, solid wastes, construction camps, pollution risk by dangerous goods, accumulative and indirect impacts, and traffic safety. EIA recommended an established set of mitigation measures for these typical problems and concluded that these typical potential impacts can be prevented or mitigated to an acceptable level in the light of national regulations. All the mitigation measures are

complied in the Environmental Action Plan. The EMP also covers sanitation issue of construction camps. In addition, the environmental impact and assessment includes solid waste environmental impact,.

# 2. Ecological Impacts by Highway

In order to improve the quality of assessment, one international and two local ecological experts were invited to take part in the surveys. They all agreed that (1) while the construction of the highway would have some amount of impacts to the ecological environment, the operation would have little impacts; (2) both impacts would be mitigated to an acceptable level if appropriate mitigation measures are taken; and (3) the project can even have positive impacts to the better protection of Erka Wetland. The proposed mitigation measures include (1) among 190 km of the highway, 106.5 km will be up-graded from the existing highway and only the 83.5 km will be newly constructed; (2) at Erka Wetland, eight bridges and ten culverts will be constructed to reduce impacts to hydrology; (3) no access roads into the wetland will be made; (4) temporal land occupation will be minimized; (5) horning will be prohibited and the speed limit will be reduced in the wetland area; (6) the local government will establish a protection plan of the wetland; (7) eco-tourism will be promoted to enhance the understanding of people on the protection of the wetland; and (8) special ecological monitoring will be conducted during construction period and three years in the operation period.

### 3. Cultural relics

It is not anticipated, but if any cultural relics are found during construction, excavation will be stopped immediately, and the local cultural authority will be informed of the discovery. Construction will not resume until the cultural relics have been identified by the authorized institution and necessary preservation measures have been taken.

# 4. Impacts by the Physical Distribution Center

The PDC is located in the existing Haidon industrial area and there are no environmentally sensitive spots around there. Appropriate wastewater treatment facilities including a emergency shutdown system for accidents will be installed.

# D. PUBLIC CONSULTATION

A two-stage public consultation was carried out: (a) shortly after environmental screening and before the terms of reference for the EA were finalized (September 2003); and (b) after the draft EA report was prepared (November 2003). The consultation was conducted by meetings with local people at project-affected towns and surveys through questionnaires. Project-affected individuals, organizations of

concerned villagers, and village committees were intensively consulted.

Apart from the resettlement-related issues, the public showed concerns about social disruption by expressway, and environmental protection during construction. They requested that adequate mitigation measures be taken. Their feedback is reflected in the engineering designs and the EAP. The major issues reflected into the project design is that (1) the number of culverts was increased from 104 to 110 and the number of pass ways from 30 to 47; (2) budget for rehabilitation of vegetation is ensured; (3) a dumping site will be moved to behind a mountain so as not to damage the scenic view.

# E. ENVIRONMENTAL MANAGEMENT AND MONITORING PROGRAM

# 1. Environmental Management

Environment Action Plans describes the implementation scheme of proposed mitigation measures. At each level of supervision of construction work, staff in charge of environment protection will be appointed and necessary training will be conducted for those staff. Necessary cost for the implementation was estimated and budget will be allocated accordingly.

# 2. Environment Monitoring

During the construction and operation phases, environmental monitoring will be carried out to verify the project's actual impacts on the environment, identify unexpected environmental problems at an early stage, and adjust environmental measures as appropriate. Environmental monitoring will be conducted by the Environmental Protection Office of Inner Mongolia Communication Department at construction stage. At operational stage, it will be entrusted to local environmental monitoring centers. The results of monitoring will be reported quarterly to the Bank and local environment authorities.

Special ecological monitoring will be conducted during the construction period and the first three years of the operation in order to observe the impacts of the project to the wetland and to take additional mitigation measures if necessary. The national independent experts who were involved in the preparation of EIA will be asked to take part in the monitoring.

# F. CONCLUSION

The construction of Hailar – Manzhouli Highway will have outstanding socioeconomic benefits and thus have been widely supported by the public. The routing of highway line is reasonable from the viewpoint of engineering economy,

and environment, with the route avoiding cities and towns such as Hailar District, Bayankuren Town, Zalainuoer Mineral Area and Manzhouli City. Accordingly, the line has to go through Erka Wetland. Intensive surveys and analysis have conducted and a comprehensive set of mitigation measures not only to prevent and mitigate negative impacts but also to improve protection of the wetland have been developed. If those measures are implemented appropriately, the negative environmental impacts by the project will be mitigated to an acceptable level for the society. Thus, Environmental Action Plan was prepared to implement those mitigation measures and to monitor environmental situation during construction and operation. This EIA concludes that the proposed project is feasible and acceptable in respect of environmental protection.

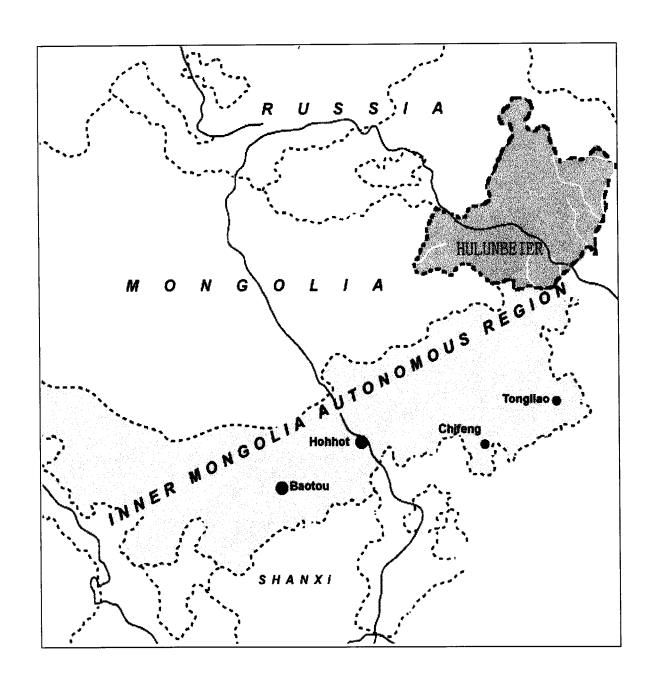


Figure-1 Map of Inner Mongolia Autonomous Region

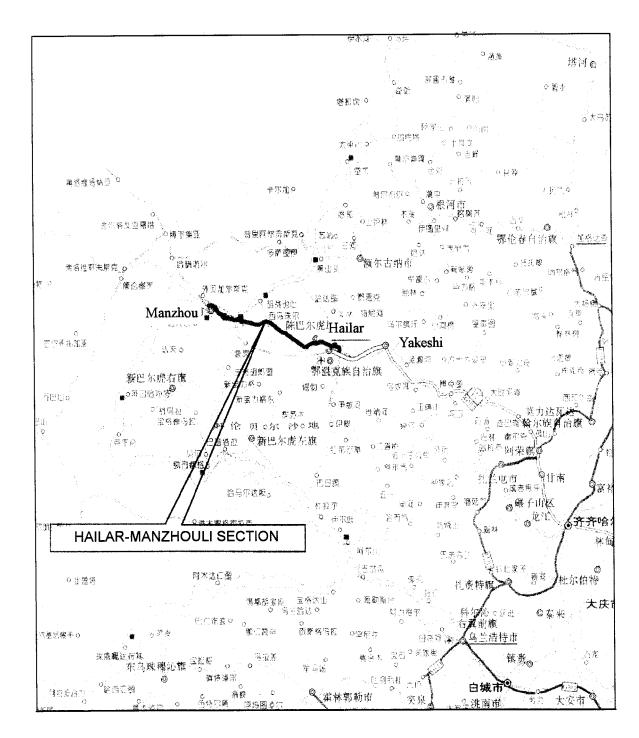


Figure -2 Map of Routing Location of the Proposed Project