

INTEGRATED SAFEGUARDS DATA SHEET APPRAISAL STAGE

Report No.: ISDSA182

Date ISDS Prepared/Updated: 11-Jan-2012

I. BASIC INFORMATION

1. Basic Project Data

Country:	China	Project ID:	P122319
Project Name:	ZhangHu Railway (P122319)		
Task Team Leader:	John Carter Scales		
Estimated Appraisal Date:	10-Jan-2012	Estimated Board Date:	22-Mar-2012
Managing Unit:	EASCS	Lending Instrument:	Specific Investment Loan
Sector:	Railways (100%)		
Theme:	Public expenditure, financial management and procurement (100%)		
Financing (In USD Million)			
Financing Source			Amount
Borrower			4482.23
International Bank for Reconstruction and Development			200.00
Total			4682.23
Environmental Category:	A - Full Assessment		
Is this a Repeater project?	No		

2. Project Objectives

The development objective of the proposed project is to improve accessibility and mobility by responding to existing and anticipated transport demand along the Huhehaote-Zhangjiakou (to Beijing) corridor through the provision of additional railway capacity and reduction of transport time for passengers and freight.

3. Project Description

The proposed project will support the construction of a new double-tracked electrified 287 km long passenger dedicated railway line with a design speed of 250 km/h along the Zhangjiakou to Huhehaote alignment, with the related railway stations. The proposed project will reduce the passenger rail travel distance from 433 km to 286 km. About 67 percent of the line will be on bridges or through tunnels. A 'no-build' alternative was analyzed during the conceptual design phase and the project was found to deliver significant economic and environmental benefits (reduced emissions, reduced congestion, reduced fuel consumption) not otherwise possible. Several alternative alignments for various sections were investigated before selecting the optimal scheme. Mitigation of environmental and social impact, technical feasibility, cost and economic benefit were all considered during the alternative analysis process. The feasibility study and environmental assessment have taken into account these considerations in analyzing alternative alignments for the railway line, location of terminals, and approaches to urban areas.

Implementation is currently planned to commence at the end of 2012 and the line open to traffic in late 2016. The Bank loan is expected to finance goods and equipment possibly consisting of signaling, electrification, bridge beams, and track fittings.

4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The ZhangHu Railway Project will pass through the Hebei province and the Inner Mongolia Autonomous Region in north China. The project corridor traverses alluvial plains, medium-hill hills, and alluvial basins that belong to mid-temperate and dry east Mongolian region.

The proposed alignment corridor is a highly developed transport corridor with an existing railway line, an expressway, a national highway and local road networks. The area around the alignment is mostly farmland, grassland and rolling hills. As such the area of the project presents moderate to low ecological sensitivity. However, in the vicinity of project corridor, there is a provincial Huagnqihai Wetland Nature Reserve and several cultural resource sites. The nature reserve houses lake and wetland ecosystem which are habitats to migratory birds. The project alignment has been carefully selected to fall into an existing transport corridor and is far away from the valuable habitats and cultural resources to the extent possible.

5. Environmental and Social Safeguards Specialists

Songling Yao (EASCS)

Ning Yang (EASCS)

6. Safeguard Policies Triggered	Yes	No	Explanation
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6. Safeguard Policies Triggered	Yes	No	Explanation
Environmental Assessment OP/BP 4.01	X		<p>The proposed project is a Category A project due to the type and scale of construction activities. Field visits, desk review and consultation with stakeholders were carried out by the Project Team in order to complete the environmental assessment. The Ministry of Railways engaged an accredited EIA consultant to prepare an EIA that is in accordance with OP/BP4.01. The EIA documents environmental baselines, comprehensive alternative analyses, impacts assessment, mitigation plans, public consultation and disclosure.</p> <p>The final EA documents include 1) an Environmental Impact Assessment Report; 2) an Environmental Management Plan; and 3) an EA Executive Summary.</p>
Natural Habitats OP/BP 4.04	X		<p>An ecological and biodiversity study has been conducted along the alignment, with special attention to the Huangqihai Wetland Nature Reserve. The study has addressed the principles and requirements of the Bank policy on natural habitats, including identifying critical habitats, assessing short term and long term impacts on the nature reserve from construction and operation of the line, assessment of fragmentation of habitats, specially the nature reserve habitats, and identifying mitigation and compensation measures. In addition, appropriate consultation with relevant management authority has been conducted and documented in the EIA report, and their concerns have been incorporated into the project design and mitigation measures.</p>
Forests OP/BP 4.36		X	<p>The project is unlikely to cause significant conversion or degradation of natural habitats. Forested areas that are impacted (a maximum of a few hundred hectares) will be dealt through the natural habitats policy.</p>
Pest Management OP 4.09		X	<p>The project is not expected to procure pesticides or impact on pest management practice.</p>
Physical Cultural Resources OP/BP 4.11	X		<p>An archeological survey was conducted along the alignment during EA preparation. Alignment alternatives were selected to avoid cultural relics sites to the greatest extent possible. Precautionary measures have been incorporated into the EMP. Along the alignment, 398 tombs will be impacted by the project. These tombs will be dealt with through RAP. Chance-find procedure is included in the EMP.</p>
Indigenous Peoples OP/BP 4.10		X	<p>The Project Team's social development specialist conducted an IP screening, including interviews with counterpart staff and local people at the visited sites, and found that no ethnic minority groups are expected to be impacted by the project.</p> <p>A social assessment for the project was also prepared, which includes a screening of all the villages within 10 km wide belt. One ethnic minority village, a Hui village, was identified within the belt but the village does not have collective attachment to habitat or territory, does not have customary institutions that are separate from the dominant society and culture, and does not have an indigenous language. A screening table was attached in the social assessment.</p>
Involuntary Resettlement OP/BP 4.12	X		<p>This project will impact 8 county-level entities (counties, county-level cities or districts) within 3 municipalities. Negative impacts include those associated with involuntary land taking. Approximately, 23 townships (towns) and 100 villages and communities in Hebei Province and Inner Mongolian Autonomy Region will be affected including approximately 7,500 persons, approximately 77% being from house demolition and/or land acquisition, and 23% from enterprises. Of those affected, approximately 3,600 people from 1,078 households will be relocated.</p> <p>Some basic farmland will probably be required by the project, it will require formal review approval from Ministry of Land Resources (MOL). This usually takes time, so the process, especially in Hebei province, will be launched as early as possible.</p> <p>A RP, with an annex of Resettlement Policy Framework, will be prepared for the project. The RP will be based on the feasibility study.</p>
Safety of Dams OP/BP 4.37		X	<p>The project will not involve any dams.</p>
Projects on International Waterways OP/BP 7.50		X	<p>The project will not involve any international waterways.</p>
Projects in Disputed Areas OP/BP 7.60		X	<p>The project will not involve any disputed areas.</p>

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Environment. Overall, the project is anticipated to have positive socio-economic benefits in terms of mobility and accessibility in the project region, facilitation of passenger transportation, diversion of overloaded highway freight transportation, and promotion of regional economic and social development. The proposed alignment corridor is a highly developed transport corridor with an existing railway line, an expressway, a national highway and local road networks. The area around the alignment is mostly farmland, grassland and rolling hills. As such the area of the project presents moderate to low ecological sensitivity.

Due to the large scale of civil works involved, the project has the potential to cause social and environmental impacts, especially during construction, which have been thoroughly assessed and can be adequately avoided, minimized and/or mitigated through mitigation measures developed either in project design or in the project EMP and RAP. Manageable adverse impacts related to: (i) crossing sensitive sites such as a nature reserve and water resource protection areas; (ii) Community impacts such as land take and resettlement; (iii) construction impacts such as noise, dust, soil erosion and social disturbance, and (iv) operational related impacts such as noise, vibration, safety and community severance.

There are a number of environmentally sensitive sites identified in the vicinity of the project corridor during EA preparation, including a nature reserve, three cultural relic sites and five water resource protection areas. Alternatives have been studied and carefully selected to avoid or minimize the impacts to these sensitive sites. However, after comprehensive consideration of geological, socio-economic and environmental factors, the final alignment will still traverse through a few sensitive sites, including: : 1) provincial level Huangqihai Wetland Nature Reserve; 2) Jininglu Ancient Town Relics; 3) Ming Dynasty Great Wall and Qin Dynasty Great Wall; 4) Class II and quasi protection zone of the Jijiafang Drinking Water Source Protection Zone; 5) Class II and quasi protection zone of Yaozhanbao Drinking Water Source Protection Zone; 6) Class II protection zone of Lujiawan Drinking Water Source Protection Zone; and 7) Class II protection zone of Hohhot Ground Water Source Protection Zone.

Baseline surveys, including ecological and biodiversity study and impact assessment have been conducted along the entire project corridor, with special focus on the protected areas. Proper engineering design, restrictions to new access roads, camp location, and disposal sites in these areas, and environmentally sound construction practices will be adopted in such areas. For example, the project alignment will fall into an existing transport corridor when crossing the Huangqihai Wetland Nature Reserve with existing railway and highway in both sides. The alignment is 3.5/4.5 km away from north buffer/core zone and 6.5/8.5 km away from south buffer/core zone of the reserve, respectively. In the case of crossing Great Wall remains, the railway line will go under the wall deeply below the ground through tunnels. Precautionary measures have been also incorporated into the EMP to avoid potential construction impacts to the Great Wall. In summary, the project impact on sensitive sites has been avoided, minimized and otherwise mitigated through analysis, consultation with relevant authorities, project design, and development of environmental mitigation measures.

Social: OP 4.12 is triggered and so a resettlement plan and a resettlement plan framework was prepared. The project will benefit and impact 8 county-level entities (counties, county-level cities or districts) within 3 municipalities. Social benefits of the project include greater mobility and accessibility together with the regional economic growth that is associated with proximity to passenger rail. Negative impacts include those associated with involuntary land taking.

The environmental and social appraisal is based upon the alignment identified in the feasibility study report prepared for the project. As with linear infrastructure projects globally, this alignment is expected to be adjusted during the final stages of design and during implementation through contract change order. As such the RP/RPF provide criteria and procedures for developing and implementing actions and measure for mitigating the adverse social impacts resulting from the implementation of activities in locations that are not directly identified in the RP.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The railway will provide excellent opportunities for local development such as local business trade, transportation and construction, especially around the terminals. Without planning, these changes could bring about congestion, increased waste and pollution, and threats to cultural resources. Impacts on large urban centers will be less significant since they will easily absorb these changes. The alignment and terminal locations Throughout the project feasibility study, the Ministry of Railways has maintained a dialogue with local governments who provided official decision and approval of. Alignment and location of terminals in urban areas meet restrictions and objectives of urban land use, and are consistent with urban master plans. Therefore, the induced development will be fully incorporated into the urban planning and management. There is no evidence of major planned linear infrastructure to be built in the vicinity of the project. Rehabilitation or upgrading of existing highways within the project corridor may take place. These activities, if implemented close to the ZhangHu railway will cause environmental and social impact in terms of traffic on the existing road network, civil works, air-borne dust, waste generation, community disturbance and safety. However, with proper project design and effective implementation, the cumulative impacts of these activities are not considered to be significant.

The impacts on the Huangqihai Wetland Nature Reserve are mostly construction related. ZhangHu railway will add to geographical segmentation though the impact will be concentrated together with the existing Danla Expressway, G110 highway and JiBao railway line rather than across a greater area. Impact to the Great Wall remains will be avoided as the line will pass underneath through tunnels. Precautionary mitigation measures are in place to avoid potential construction impacts.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

The project was compared to a 'no build' alternative as part of the feasibility study process, and was found to deliver significant economic and environmental benefits (reduced emissions, reduced congestion, reduced fuel consumption) versus the 'no build' alternative. The process of alignment and terminal location selection has been an important environmental tool for this project. Alternative analysis has been extensively conducted during project proposal, pre-feasibility study, the feasibility study, EA and RAP preparation. A number of sectional and location alternatives have been thoroughly studied, with comprehensive considerations of economic, technical, environmental, social factors and consultations with local governments.

- 1) Hohhot Station. Several siting and connection options were studied. As the result, the existing Beijing-Baotou railway corridor and Hohhot East Station option was selected. This option is compatible with the city's urban planning and minimizes land take among other options.
- 2) Wulanchabu Section and Station. This selected section shares existing JingZang Expressway corridor. The new Wulanchabu station will be located between Wulanchabu city built-up area and a new development zone. This option is compatible with the city's urban planning and mitigates potential segmentation of the urban area and noise impacts.

- 3) Xinghe Station. The new station will be located between old urban area and new development zone of the county, which is favorable for the access of travelers and development of supporting infrastructures.
- 4) Zhuozishan Station. The selected station will use JiBao Second Railway Line corridor that minimizes segmentation of the urban area and land take.
- 5) Huai'an Station. 3 options were studied. The Huancheng South Road option was selected because of its least land take and resettlement requirements.
- 6) Section across Huangqihai Wetland Nature Reserve. As noted, it is inevitable for the alignment to cross the experimental zone of the reserve. The selected alignment falls into an existing transport corridor, within existing railway and expressway. Impact is minimized by selecting an alignment that is 3.5 to 4.5 km away from north buffer and core zone and 6.5 to 8.5 km away from south buffer and core zone of the reserve, respectively. Mitigation measures have been incorporated into the EMP.
- 7) Section near Jininglu Ancient Town Relics. Two scenarios were studied. The selected option is 280m away from the boundary of the relics' official protection area. This option uses existing Danla Expressway corridor and will cause less land take and resettlement than the other. The impacts on the relics has been assessed and considered negligible.
- 8) The railway alignment will have to cross several drinking water source protection zone and several hills on top of which there are relics of Qing and Ming dynasty Great Wall. Impacts assessment has been conducted and different engineering/construction techniques have been studied. The final alignment sections have been selected to avoid or shifted away from the protected area to the extent possible. Environmental friendly construction techniques (such as low vibration operation) have been selected as well. The remaining impacts are considered minimal.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

Environment. MOR retained the China Railway Consulting Group, a Class A licensed EIA institute in China to conduct the EIA preparation, with guidance and advice from the Bank's environmental team. Extensive assessment has been conducted for all the potential impacts, based on which a set of mitigation measures have been developed in the project design and EMP. In summary, MOR implemented a three-fold approach to minimize environmental and social impacts. These are:

- Avoidance. Alternative analysis has been carefully conducted to avoid the environmental and social sensitive areas to the extent possible, as one of the most important mitigation measures to minimize potential adverse environmental and social impacts. The selected alignment led to reduced house and structure demolition, especially in urban areas, and has avoided a number of sensitive sites including nature reserves and cultural heritage sites.
- Sound Engineering. The project has been designed with state-of-the art engineering. Bridge-tunnel-bridge schemes are adopted for more than 68% of the whole alignment (about 47% for large and medium bridges and 21% for tunnels) and will minimize land acquisition and ecological footprint.
- Comprehensive Mitigation Plans. Detailed environmental design plans, environmental management plans, resettlement action plans have been prepared in order to minimize and/or compensate unavoidable impacts from the project.

Environmental Management Plan and Implementation Arrangement. An Environmental Management Plan (EMP) has been developed based on the findings of the EIA report. The EMP detailed the environmental management and supervision organizations and responsibilities, mitigation measures, capacity training plan, monitoring plan, and budget estimates of EMP implementation. EMP implementation will be managed by MOR through the Project Company, which is responsible for overall environmental management during project construction. Environmental management responsibility will be built into the project management structure within Project Company, with dedicated environmental management staff. The contractors and supervision engineers will assign qualified environmental staff to their team to ensure effective implementation of the EMP. Environmental mitigation measures developed in EMP will be fully incorporated into the bidding documents and contracts of Contractors. Environmental supervision responsibility will be included in contracts with Project Supervision Firms as an integral part of project supervision.

The Project Company will recruit an independent environmental consultant to conduct independent monitoring on performance of both the contractors and the supervision engineer firms in terms of EMP implementation. It will also provide environmental training to the contractors, environmental supervision engineers and the Project Company staff prior to and during construction, and assist the Project Company/MOR to prepare semi-annual environmental reports to the Bank.

Social. Land compensation rates stipulated in the resettlement plan are in accordance with the land compensation regulations in effect at the time of appraisal. Rural houses will be compensated according to replacement cost, house replacement, or professional valuation, while urban structures will be paid based on professional evaluation in reference with market price. Households will also obtain resettlement allowance and relocation subsidies. Compensation for enterprises will base on professional evaluation including economic loss due to the relocation. A restoration plan will stipulate infrastructure compensation in consultation with the affected villages and communities.

Rural houses will be restored in two ways: collective relocation and scattered relocation. Collective relocation will be planned, built, provided with land and public facilities, by local governments; and scattered relocation is built by resettlers themselves near the original villages with residential land and public facilities provided by villages.

There are three villages losing more than 20 percent of their total land for which the RAP has detailed resettlement strategies. For the other villages, the main restoration measures rely on cash compensation in combination with other assistance measures such as a social security program, land readjustment within the village group and employment training. As the villages collectively own the land, land adjustment within the village is possible. Sixteen enterprises chose cash compensation and the other 18 prefer rehabilitation of which 12 will be restored in designated areas by local governments and the 6 will choose their own sites to restore.

Extensive consultation meetings at the provincial level, county level, townships and villages were conducted, and questionnaires along the line were implemented during the RP/RPF and SA preparation. Project realignment, station location, and resettlement arrangements were planned and designed to reflect the results from the consultation. A grievance procedure from village to central government was designed as part of the RP/RPF. The RP also covered arrangements on resettlement institution, capacity building, monitoring and reporting.

Resettlement will be financed according to actual demand by the provincial level governments through the project company rather than county level governments which have limited financial resources, and the resettlement cost will be reflected as equity and shares in the project company. Local governments will implement specific resettlement activities.

The RP also covers participation plan and grievance handling mechanism, as well as internal and external monitoring arrangement.

While the province and local governments are experienced in monitoring domestic involuntary resettlement, they have little experience in monitoring Involuntary Resettlement under the OP 4.12. This creates a risk that the RP/RPF may be not adequately implemented. In order to ensure that the counties and districts responsible for the implementation the RP/RPF are aware of the RP/RPF compensation rates, confirmation letters have been signed with the municipalities along the alignment.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Environment. During the EA preparation, public consultations were conducted in accordance with the Bank's OP4.01, through a combination of opinion surveys and public meetings in the city, townships and villages. Stakeholders such as local authorities, civil society, and the affected population were consulted on land acquisition matters through the newspaper, meetings, and focus groups. Local governments were consulted on the alignment of the railway line and location of stations. Management authorities for affected nature reserves, cultural resources and water source protection areas were consulted for agreement and proper mitigation measures. The final alignment and mitigation measures for the project fully conforms the consultation results and approvals from these authorities. All the affected villages were informed, investigated and consulted. Public concerns raised during the consultation have been incorporated in project design, the EIA and EMP.

The EIA has been disclosed in accordance with the Bank's policy. The public has been given notice of EA preparation by posting posters and bulletins in townships and villages, disclosure in local newspapers (Inner Mongolia Daily and Zhangjiakou Daily) during July 2010 ~ November 2011. The draft full EIA document was disclosed in local environmental protection bureaus, railway administrative offices in October, 2011, and on internet on Nov, 2011. As such, the EA is publicly accessible.

Social. The key stakeholders include the provincial level, county level, townships governments, village commissions, and the affected villagers/citizens, enterprise owners and workers, entities owning the affected structures and facilities.

Extensive consultation meetings at the provincial level, county level, townships and villages were conducted, and questionnaires along the line were implemented during the RP/RPF and SA preparation. Project realignment, station location, and resettlement arrangements were planned and designed to reflect the results from the consultation. Compensation rates were endorsed by local governments. The villagers/citizens expected to be affected are investigated, consulted in inventory process and resettlement planning. Consultation and participation will continue during the project resettlement implementation. The RP tabulates contact information including office name, staff name and their telephone number for information disclosure and grievance addressing.

The RP and the RPF were disclosed through local newspapers. Before assets taking contract with each household on housing, village on land, enterprise on enterprise compensation, entity on structure/facilities will be reached on compensation and relocation arrangement.

B. Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/Other	
Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	05-Apr-2011
Date of "in-country" disclosure	16-Oct-2011
Date of submission to InfoShop	09-Jan-2012
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	09-Jan-2012
Resettlement Action Plan/Framework/Policy Process	
Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	04-Nov-2011
Date of "in-country" disclosure	04-Jan-2012
Date of submission to InfoShop	09-Jan-2012
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment			
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
OP/BP 4.04 - Natural Habitats			
If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
OP/BP 4.11 - Physical Cultural Resources			
Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
OP/BP 4.12 - Involuntary Resettlement			
If yes, then did the Regional unit responsible for safeguards or Sector Manager review the plan?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]

The World Bank Policy on Disclosure of Information			
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
All Safeguard Policies			
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
Have costs related to safeguard policy measures been included in the project cost?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [<input checked="" type="checkbox"/>]	No [<input type="checkbox"/>]	NA [<input type="checkbox"/>]

III. APPROVALS

Signed and submitted by:	Name	Date
Task Team Leader:	John Carter Scales	11-Jan-2012
Approved By:		
Sector Manager:	Paul Kriss (SM)	11-Jan-2012
Comments:		