

Ex-ante Evaluation

1. Name of the Project
Country: People's Republic of China Project: Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation) (Liaoning, Hebei, and Hainan Provinces) (Loan Agreement: June 23, 2006; Loan Amount: 14,700 million yen; Borrower: The Government of the People's Republic of China)
2. Necessity and Relevance of JBIC's Assistance
<p>In China, the Open and Reform has since 1978 brought about the transition to a market economy, rapid economic development, and associated environmental problems. This became even truer with China's accession to the WTO. Against this background, it is becoming necessary to strengthen education and research activities related to market rules and environmental problems. In addition, regional economic disparities have become visible, necessitating regional economic vitalization in less developed regions. Concerning these regions, improvement of higher education is also needed in terms of both quantity and quality to meet the increased demand for higher education following the spread of primary and secondary education (the higher education enrollment rate was 17% in 2003). In the "10th Five-Year Plan for National Economic and Social Development (2001-2005)" and the "10th Five-Year Plan for Education" (2001-2005), the Chinese government set goals of 15% enrollment in higher education institutions, 16 million students in higher education institutions, and human resource development in areas such as law, finance, and trade. It is assumed that even higher goals will be set in the Eleventh Five-Year Plan (2006-2010) currently being formulated.</p> <p>The three target provinces (Liaoning, Hebei, and Hainan) are geographically in the coastal region, but fiscal shortages have left them with comparatively lagging educational conditions. In particular, enhancement of higher education is becoming an urgent issue to meet the rapidly increasing demand.</p> <p>This project corresponds to the activity of "human resources development," a priority area stipulated both in the Economic Cooperation Program for China by the Government of Japan, and in the Medium-Term Strategy for Overseas Economic Cooperation Operations by JBIC. Thus, JBIC's assistance for this project is highly necessary.</p>
3. Project Objectives
The project aims at quantitative and qualitative improvements of higher education institutions in the target provinces. Support will be provided for both hard (development of buildings and facilities) and soft (training for faculties) sides. It will thereby contribute to human resources development aimed at stronger market rules, environmental conservation, and regional development, through such means as providing human resources to governments in the target provinces.
4. Project Description
(1) Target Area Liaoning, Hebei, and Hainan Provinces

(2) Project Outline

(a) Target Universities

Hainan	Liaoning University, China Medical University, Shenyang University of Technology, Liaoning Technical University, Shenyang Agricultural University, Dalian Medical University, Dalian Jiaotang University, Dalian Institute of Light Industry, Anshan University of Science and Technology, Shenyang Institute of Chemical Technology, Liaoning University of Petroleum and Chemical Technology, Dongbei University of Finance and Economics, Liaoning Normal University, Shenyang Normal University, Liaoning Institute of Technology (15 universities)
Hebei	Hebei University, Hebei University of Technology, Yanshan University, Agricultural University of Hebei, Hebei Normal University, Hebei Medical University, Hebei University of Science and Technology, Hebei University of Economics and Business, Hebei Polytechnic University, Hebei Engineering College, Hebei North University, Hebei Normal University of Science and Technology, Chengde Medical College, Hebei Woman College of Vocational Technology (14 universities)
Hainan	Hainan University, South China University of Tropical Agriculture, Hainan Normal University, Hainan Medical College (4 universities)

(b) Project Scope

Construction of buildings, reinforcement of educational and research facilities, dispatch of trainees and acceptance of Japanese specialists

(3) Total Project Cost/ Loan Amount

23,373 million yen (Yen Loan Amount: 14,700 million yen)

(Notes) Liaoning: Project cost: 9,505 million yen (Yen Loan Amount: 5,775 million yen)

Hebei: Project cost: 9,116 million yen (Yen Loan Amount: 5,775 million yen)

Hainan: Project cost: 4,752 million yen (Yen Loan Amount: 3,150 million yen)

(4) Schedule

July 2006-end of March 2011 (57 months)

(5) Implementation Structure

(a) Borrower: The Government of the People's Republic of China

(b) Executing Agency: Liaoning, Hebei, and Hainan Provincial People's Governments

(c) Operation and Maintenance System: Education Departments of Liaoning, Hebei, and Hainan Provincial People's Governments, and target universities

(6) Environmental and Social Consideration

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: B

(ii) Reason for Categorization

This project is classified as Category B according to the "Japan Bank for International Cooperation

Guidelines for Confirmation of Environmental and Social Considerations” (established April 2002). This categorization is assigned because this project does not correspond to sectors or regions described in said guidelines as being sensitive to negative impact, and because it is not deemed to have a significant harmful impact on the environment.

Environmental Impact Assessment (EIA) reports for the project were approved by Environmental Protection Bureau of Liaoning Province, Environmental Protection Department of Hebei Province, and Bureau of Land, Environment and Resources of Hainan Province, in May 2004, August 2002, and August 2005, and by other relevant authorities.

(iv) Anti-Pollution Measures

During construction of buildings, impacts on the surrounding environment such as noise and dust will be handled by halting work at night, using noise barriers, and sprinkling water. Waste matter such as chemicals and medicines from medical and chemistry-related classrooms will be collected and disposed according to domestic laws, by the environmental protection agencies of Liaoning, Hebei, and Hainan Provinces.

(v) Natural Environment

The project will be carried out on existing university sites. Undesirable impacts on the natural environment are assumed to be minimal.

(vi) Social Environment

The project will be carried out on existing university sites, so there will be no site acquisition or relocation of residents.

(vii) Other/Monitoring

The environmental protection agencies of Liaoning, Hebei, and Hainan Provinces will monitor emissions such as gas and noise during construction for the project.

(b) Promotion of Poverty Reduction

None.

(c) Promotion of Social Development (e.g. Gender Perspective)

None.

(7) Other Important Issues

None.

5. Outcome Targets

(1) Evaluation Indicator (Operation and Effect Indicator)

Indicator		Baseline (2004)	Target (2012, 1 year after completion of project)
Students in target higher education institutions (unit: 10,000 students)	Liaoning	21.3	33.9
	Hebei	25.4	37.1
	Hainan	4.2	7.2
Higher education enrollment rate in target	Liaoning	29.3	39.0

	Hainan	17.0	30.0
Facility area per student for target higher education institutions (m ² /student)	Liaoning	16.1	16.5
	Hebei	10.2	10.6
	Hainan	11.4	14.9
Education and research facilities per student for target higher education institution (yuan/student)	Liaoning	5,326	6,455
	Hebei	5,492	7,241
	Hainan	4,536	5,817

(2) Internal Rate of Return (Financial/Economic Internal Rate of Return)

The main goal of the project is quantitative and qualitative improvements of higher education, for which reason it is difficult to specify resulting profits or benefits. It is therefore inappropriate to obtain internal rate of return, so has not been calculated.

6. External Risk Factors

Migration of human resources from target higher education institutions to coastal areas or overseas.

7. Lessons Learned from Findings of Similar Projects Undertaken in the Past

From past ex-post evaluations of similar projects in the human resource development area, the lesson has been learned that it is necessary to devise a scheme that meets the latest user needs. It should reflect the newest trends as much as possible, especially for equipment which is easily affected by technical innovation.

With this in mind, this project will have researchers and faculties of target universities (end users) carry out selection in the purchasing stage. Especially for very urgent equipment, the project will ensure smooth procurement through individual package for each university.

Also, the lesson has been learned that when the project targets spread over an extensive area, overall management of the project becomes difficult, requiring consultants to be hired to oversee these targets. The project will make continued appeal to the Chinese side for providing province-wide support for project implementation concerning training components, which is especially difficult to manage, in addition to existing human resource development projects.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- (a) Students in target higher education institutions (students)
- (b) Higher education enrollment rate in target provinces (%)
- (c) Facility area per student for target higher education institutions (m²/student)
- (d) Education and research facilities per student for target higher education institutions (yuan/student)

(2) Timing of Next Evaluation

After completion of project