

Supporting Environmental Conservation, Human Resources and Regional Development in China —ODA Loan Package to China for Fiscal 2002—

1. Japan Bank for International Cooperation (JBIC; Governor; Kyosuke Shinozawa) signed today loan agreements with the Government of the People's Republic of China, totaling 121.214 billion yen. The loan is for projects of ODA loan package to China for Fiscal 2002, in which priority areas are environmental conservation, human resources development and poverty reduction. Continuing from last year, projects were selected in accordance with the Economic Cooperation Program for China, which was established by the Government of Japan in October 2001, based on a review of the official development assistance to China.

2. The highlights of this year's ODA loan package are as follows:

(1) Support for environmental conservation: Of the 13 projects, six projects are for environmental conservation (71% of the total amount). The Henan Environmental Improvement Project and Anhui Environmental Improvement Project are intended to help mitigate air pollution by converting the energy source from coal to natural gas. The Yichang Environmental Improvement Project and Nanning Environmental Improvement Project, categorized as "anti-pollution" projects, are aimed at upgrading the urban water environment through the rehabilitation of rivers and development of the water supply and sewerage system. Also, China has been threatened by the loss of forest resources and ongoing desertification due to reckless logging and reclamation as an outcome of its economic growth in recent years. In order to tackle these challenges, the Gansu Afforestation and Vegetation Cover Project and the Inner Mongolia Afforestation and Vegetation Cover Project, categorized as "natural environmental conservation" projects, are designed to help increase vegetation cover by planting trees and grass.

(2) Support for human resources development: Of the 13 projects, six projects are for human resources development (23% of the total amount). China urgently needs to foster human resources in such areas as information technology, finance, accounting and law, in order to further strengthen the rules of the market economy after its entry into the WTO. China also needs to nurture human resources in the inland region to narrow the gap of regional disparity. In addition, as enrollment in primary and secondary education grows across the country, quantitative demand for higher education (university education) has also been increasing. Taking into account these issues, these six human resources development projects are aimed at promoting university education in six provinces located in the inland region: the Xinjiang Uygur Autonomous Region, the Guangxi Zhuang Autonomous Region, Guizhou Province, Jilin Province, Anhui Province, and Henan Province. Since the projects include programs to send teachers for training from target universities in China to Japanese universities or institutes, it is also expected to contribute to the promotion of mutual understanding between Japan and China.

(3) Support for regional development (poverty reduction): Of the 13 projects, one project is a regional development project (6% of the total amount). The Hunan Environmental and Living Conditions Improvement Project will develop the water supply, upgrade sanitation, and provide education in rural areas in the northwestern part of Hunan Province. All of the 13 projects in this package will support the inland region and will contribute to narrow the gap of coastal and inland disparity in China.

3. In this year's ODA loan package, JBIC collaborated with Japanese local governments and other official agencies from the project formation stage, to provide assistance incorporating Japanese experience and know-how so that the Chinese can see in it a distinct Japanese profile. In the Environmental Improvement Projects in Henan and Anhui Provinces, environmental experts from Osaka's municipal and prefectural governments gave advice to their Chinese counterparts; In the Yichang Environmental Improvement Project, advice was offered from an environmental expert from the Kobe municipal government; Experts on flood control from Kumamoto Prefecture presented a proposal for the Nanning Environmental Improvement Project. In addition, representatives of Japanese NGO, OISCA, and Chinese local governments will discuss the possibility of implementing a program within the JBIC project sites for the Afforestation and Vegetation Cover Project in Gansu Province and the Inner Mongolia Autonomous Region. The idea for this discussion was first suggested when OISCA accompanied JBIC's research mission for the projects.

(See Appendix for details.)

Project Name	Amount (Mil. Yen)	Interest Rate (% per annum)	Payment Period/Grace Period (Years)	Tying Status	
1 Henan Environmental Improvement Project	19,295	0.75*	40/10*	General Untied	
2 Anhui Environmental Improvement Project	18,558	0.75*	40/10*		
3 Yichang Environmental Improvement Project	8,460	Water supply portion: 2.2	Sewage portion: 0.75*		
		30/10	40/10*		
4 Nanning Environmental Improvement Project	12,115	0.75*	40/10*		
5 Gansu Afforestation and Vegetation Cover Project	12,400	0.75*	40/10*		
6 Inner Mongolia Afforestation and Vegetation Cover Project	15,000	0.75*	40/10*		
7 Hunan Environmental and Living Conditions Improvement Project	7,882	Water supply portion: 0.75*	Other: 2.2		
		40/10*	30/10		
8	Xinjiang Uygur Autonomous Region	4,598	Water supply portion: 0.75*		Other: 2.2
			40/10*		30/10
9	Guangxi Zhuang Autonomous Region	4,606	Water supply portion: 0.75*		Other: 2.2
			40/10*		30/10
10	Inland Higher Education Project (Regional Vitalization, Market Economy Reform Support, and Environmental Conservation)	Guizhou Province	4,593	Water supply portion: 0.75*	Other: 2.2
				40/10*	30/10
11	Jilin Province	4,530	Water supply portion: 0.75*	Other: 2.2	
				40/10*	30/10
12	Anhui Province	4,478	Water supply portion: 0.75*	Other: 2.2	
				40/10*	30/10
13	Henan Province	4,699	Water supply portion: 0.75*	Other: 2.2	
				40/10*	30/10
Total	121,214				

* Preferential Term

(1) Henan Environmental Improvement Project

(i) Background and Necessity of the Project

Henan Province, located in central China, has an area of approximately 170,000km² and a population of approximately 96 million (the largest in China). Per capita GDP in 2001 was 5,924 Yuan, which is around 80% of the national average (7,543 Yuan).

Energy consumption in Henan Province is rising with economic growth, increasing 42% from 1991 through 1999. The province depends on coal for 80% of its energy (in 1999), which is the ninth highest coal dependency rate among 31 provinces. Coal is widely used in factories and power stations, as well as for civil uses, such as home heating. This energy structure, with high dependence on coal, brings about severe air pollution by the emissions of sulfur oxides (SO_x), nitrogen oxides (NO_x), dust and other pollutants.

Of the 18 cities in Henan Province, 14 have Total Suspended Particle (TSP) levels that exceed the National Atmospheric Environment Grade 2 (of the five cities covered by the project, four exceed the standard), and there is concern that SO₂ and NO_x levels will soon exceed the standard if the coal dependency continues.

This situation prompted the Henan provincial government to take measurements against air pollution under its 10th Five-Year Plan. Targets included 10% reductions in SO₂, NO_x and TSP emissions, compared to 2000 levels, 20% reduction of SO₂ emissions in cities designated as SO₂ pollution control zones, and in compliance with the National Atmospheric Environment Grade 2.

The Henan provincial government plans to pursue policies such as transition to clean energy, introduction of cleaner production, use of clean coal, closure of key pollution sources and wider use of collective heating systems in order to meet its targets for improving the atmospheric environment.

For transition to clean energy, a plan to replace coal and other fuels with natural gas was adopted in May 2002. The project is an element of that plan. The natural gas, produced in western China will be carried to the coastal regions through the main pipeline that will be built in the "West-East Pipeline" project (i.e. 4,000km natural gas pipeline linking the inland Tarim Basin with Shanghai, completion is scheduled in 2004.) It will be carried to each city by branch of the pipeline, which is to be constructed in the province.

(ii) Purpose and Description of the Project

The project will build natural gas supply facilities in five cities in Henan Province (Jiaozuo, Luohe, Pingdingshan, Xinyang, Zhumadian) so that coal and other fuels can be replaced by natural gas, with the aim of improving the atmosphere. Meanwhile, Osaka Prefecture and Osaka City conducted joint study with Chongqing City, through Japan's Global Environment Center, on the promotion of natural gas conversion projects. Based on the study findings, these municipalities have contributed to the improvement of air environment in Henan Province by dispatching environmental experts.

The proceeds of the loan will be applied to the procurement of materials and equipment for gas supply, including gas pipes, gas holders and monitor control systems.

The executing agency for the project is The People's Government of Henan Province (Address: No.27, Jingsan Road, Zhengzhou, Finance Department, P.O.Code 450008, Tel: 86-371-5722312, Fax: 86-371-5722312).

(2) Anhui Environmental Improvement Project

(i) Background and Necessity of the Project

Anhui Province, located in central China, has an area of approximately 140,000km² and a population of approximately 63 million. Per capita GDP in 2001 was 5,221 Yuan, which is around 70% of the national average (7,543 Yuan).

Energy consumption in Anhui Province is rising with economic growth, increasing 70% from 1991 through 1999. The province depends on coal for 84% of its energy (in 1999), which is the sixth highest coal dependency rate among 31 provinces. Coal is widely used in factories and power stations, as well as for civil uses, such as home heating. This energy structure, with high dependence on coal, brings about severe air pollution by the emissions of sulfur oxides (SO_x), nitrogen oxides (NO_x), dust and other pollutants.

Of the 17 cities in Anhui Province, six have Total Suspended Particle (TSP) levels that exceed the National Atmospheric Environment Grade 2 (of the eight cities covered by the project, four exceed the standard), and there is concern that SO₂ and NO_x levels will soon exceed the standard if the coal dependency continues.

This situation prompted the Anhui provincial government to take measurements against air pollution under its 10th Five-Year Plan. Targets included 10% reductions in SO₂ emissions, compared to 2000 levels, 20% reduction of SO₂ emissions in cities designated as acid rain control zones, and in compliance with the National Atmospheric Environment Grade 2 for SO₂ and NO₂. Targets for TSP are to clear Grade 2 in Hefei, Huaibei and cities along the Yangtze River (Wuhu, Maanshan, Tongling, Anqing), and to clear Grade 3 in other cities.

The Anhui provincial government plans to pursue policies such as transition to clean energy, introduction of cleaner production, use of clean coal and closure of key pollution sources in order to meet its targets for improving the atmospheric environment.

For transition to clean energy, a plan to replace coal and other fuels with natural gas has been adopted, and the project is an element within that plan. The natural gas to be used is produced in western China and carried to the coastal regions by the main pipeline of the "West-East Pipeline" project. It will be carried to each city by branch pipelines which are to be constructed in the province.

(ii) Purpose and Description of the Project

The project will develop natural gas supply facilities in eight cities in Anhui Province (Chaohu, Chuzhou, Fuyang, Hefei, Huainan, Maanshan, Tongling, Wuhu) so that coal and other fuels can be replaced by natural gas, with the aim of improving the atmosphere. Meanwhile, Osaka Prefecture and Osaka City conducted joint study with Chongqing City, through Japan's Global Environment Center, on the promotion of natural gas conversion projects. Based on the study findings, these municipalities have contributed to the improvement of air environment in Anhui Province by dispatching environmental experts.

The proceeds of the loan will be applied to the procurement of necessary materials and equipment for gas supply, including gas pipes, gas holders and monitor control systems.

The executing agency for the project is The People's Government of Anhui Province (Address: No.85, Changjiang Road, Hefei, Development Planning Commission, P.O.Code 230001, Tel: 86-551-260-1470, Fax: 86-551-261-0492).

(3) Yichang Environmental Improvement Project

(i) Background and Necessity of the Project

Yichang city is situated in the middle reaches of the Yangtze, in the west of Hubei Province, where it is the political, economic and cultural hub. It has an area of approximately 4,249km², of which an urbanized area is approximately 54km², and a population of approximately 3.97 million, of which an urban population is approximately 660,000.

Yichang is an important shipping and trading river port city for goods moving in the east of Sichuan Province and in the northwest of Hubei Province. It is also a center on the key transport and distribution routes in the Western Region Development area.

However, the city's urban infrastructure development is still on the way. There are no wastewater treatment plants, and in 2001 approximately 60% of the city's sewerage was discharged directly to the Yangtze River. The other 40% was discharged into other rivers within the city. The water pollution of the Yangtze in the city exceeds National Water Quality Standard Category II.

The technological level of existing water supply facilities in Yichang is low, and turbidity constantly exceeds the standard. The water mains network was laid over 40 years ago and many pipes are dilapidated. The network suffers over 100 pipeline breakages a year, and urgent remedial action is required.

This situation prompted Yichang to set improvement targets for surface water quality and implement water quality improvement projects under its 10th Five-Year Plan for Environmental Protection. It also plans to improve water mains facilities under the 10th Five-Year Plan for National Economic and Social Progress. Specifically, the Yichang Municipal People's Government aims to build five water treatment plants under its Central Yichang Sewerage Treatment Development Plan, beginning with Linjiangxi Sewerage Treatment Plant (200,000m³/day), in an effort to improve water quality in the city's rivers.

(ii) Purpose and Description of the Project

The project will build sewerage facilities in Yichang in order to improve water quality of the city's rivers, and improve water supply facilities to raise the quality of the water supply. The aim is to encourage sustainable development in the city.

The project consists of sewerage facilities development (including construction of water treatment plants with 200,000m³/day capacity) and improvement of water supply facilities (improvement of existing water treatment plants). Kobe City, which has been promoting an exchange project with the Yangzi Basin including Hubei Province, has contributed to the improvement of water environment by dispatching an environmental expert.

The proceeds of the loan will be applied to the construction of water treatment plants, procurement of relay pumping stations, sewage collection systems as well as civil work materials and mechanical equipment necessary for improvement of existing water treatment plants.

The executing agency for the project is Yichang Municipal People's Government (Address: No.39, Yiling Road, Yichang, Hubei, P.O.Code 443000, Tel: 86-717-6445439, Fax: 86-717-6446492).

(4) Nanning Environmental Improvement Project

(i) Background and Necessity of the Project

Nanning city is the provincial capital of Guangxi Zhuang Autonomous Region. It has an urban population of approximately 1.3 million and spreads across both banks of the Yongjiang River, which is a tributary of the Zhujiang River. It is the political, economic, financial, information and cultural hub of the autonomous region, and a strategic point in one of the three economic development belts in the Great Western Development Area, designated by the State Council (i.e. the administrative body which holds supreme executive authority in China. Thus it is the central government, equivalent to the Japanese cabinet.)

Economic and social progress and the advance of urban construction are causing rapid growth in the population of Nanning, and its urbanized area is expanding rapidly. The volumes of household and industrial wastewater are also growing, but the wastewater treatment rate in 2000 was only 17% in the urbanized area. This, combined with the uncontrolled dumping of waste in lakes and rivers has led to grave pollution of two rivers (Chaoyangxi, Zhu drainage canal) and one lake (Nan Hu) in the urbanized area.

Situated in the Zhujiang river basin, Nanning also suffers from frequent flooding. Therefore, the Chinese government called for flood control facilities to be in Nanning by 2005 that would reduce the incidence of flooding to once in 50 years.

The Nanning municipal government, acting on the above situation and Chinese government policies, decided to promote construction of the Langdong No.2 Wastewater Treatment Plant and Jiangbei Area sewer network, and the improvement of the Zhupai Stream Flood Prevention System, under its 10th Five-Year Plan (2001~2005).

(5) Purpose and Description of the Project

The project will build sewerage facilities in Nanning in order to improve water quality of the city's rivers and lakes, and improve the flood control capacity of city's waterways. The aim is to encourage sustainable development in the city.

The project comprises the following elements:

- 1) Zhupai Stream Flood Prevention System Improvement Project.
- 2) Landong No.2 Wastewater Treatment Plant Construction Project(100,000m³/day).
- 3) Jiangbei Area Sewer Network Construction Project.

Kumamoto Prefecture, which has friendly relations with Guangxi Zhuang Autonomous Region, has sent out a flood control expert to help improve water environment in Nanning City.

The proceeds of the loan will be applied to canal replacement and dredging for Zhupai Stream Flood Prevention System Improvement Project, construction of a wastewater treatment plant for Landong No.2 Wastewater Treatment Plant Construction Project, and procurement of civil work materials and mechanical equipment necessary for sewer pipe laying and other works for Jiangbei Area Sewer Network Construction Project.

The executing agency for the project is Guangxi Zhuang Autonomous Regional People's Government (Address: No 69, Tayuan Road, Nanning, Guangxi, P.O.Code 530021, Tel: 86-771-5331694, Fax: 86-771-5311214).

(6) Inner Mongolia Afforestation and Vegetation Cover Project

(i) Background and Necessity of the Project

Inner Mongolia is one of the regions with the lowest precipitation in China. It contains around 20% of all the degraded land in China, and 63% of its land area is either desert or desertifying. In 1949 the rate of forest cover was approximately 7.7%, the lowest level in the country. Therefore afforestation and vegetation cover have long been key tasks in the area, and planting efforts succeeded in covering a total of 7.75Mha between 1979 and 1998, bringing the rate of forest cover to 14.8% by 1999.

However, sustained efforts against desertification are still required, and the National Ecological Environmental Construction Program (enacted in 1999 as a comprehensive plan for conservation of China's natural environment) named anti-desertification in Inner Mongolia as one of the key tasks to pursue through to 2010. Inner Mongolia's 10th Five Year Plan (2001~2005) also sets afforestation and vegetation coverage as important tasks for continuation, calling for planting over 6.67Mha over the five years. The aim is to raise the rate of forest cover from 14.8% in 1999 to 17% within the plan period.

The area covered by implementation of the project suffers from harsh natural conditions, with very low precipitation, which are compounded by human factors such as excessive logging, overgrazing and excessive land clearance. The result is severe loss of vegetation coverage. The desert is adjacent to irrigated land and residences, threatening the livelihood in those areas, and there is a strong need for action to prevent desertification.

(ii) Purpose and Description of the Project

The project will implement afforestation and vegetation cover in the Yellow River of Inner Mongolia to increase forest and vegetation cover in the area, thereby preventing desertification and improving the natural and living environments. Japanese NGO, OISCA, and Chinese local governments will discuss the possibility of implementing a program (Children's Forest Program) within the elementary and middle schools in project site. The idea for this discussion was first suggested when OISCA accompanied JBIC's research mission for the project.

The proceeds of the loan will be applied to the procurement of seedlings, seeds, fertilizer, machinery and civil works.

The executing agency for the project is Inner Mongolia Autonomous Regional People's Government (Address: No. 1, Xinhua Street, Huhhot, Inner Mongolia, P.O.Code 010055, Inner Mongolia Region Finance Bureau, Tel: 86-471-694-5028, Fax: 86-471-694-5308).

(7) Hunan Environmental and Living Conditions Improvement Project

(i) Background and Necessity of the Project

Hunan Province is a typical inland region, where 70% of the population live in rural areas (the national average is 64%). Projects for the relief of poverty over the 20 years since the start of the reform process have lifted over 12 million people out of poverty (the poverty line in China was set as per-capita annual expenditure of 100 Yuan in 1978, and 625 Yuan in 2000). However, once the group who have barely managed to clear the poverty line are included, there were still 4.3 million people in poverty in 2000, and 20 of the province's 127 counties (cities and districts) are designated as national-level poverty districts (In February 2002, there were 592 poor counties nationwide.) Poverty alleviation policies in the Hunan Province Rural Poverty Alleviation Plan (2001~2010) include targets of 99% elementary school enrolment and 95% junior high school enrolment, health centers established in 90% of villages, potable water supply diffusion rate of 90%, and other indicators.

The Wulingshan area in the northwest of Hunan Province is a belt of mountainous land with a concentration of poor residents and low agricultural productivity. A majority of the residents make their living from farming, and most of their crops are for home consumption. The average per-capita net income in the region is approximately 1,360 Yuan (in 2000). The poverty rate of this region is approximately 9% (in 2000), while the nationwide average poverty rate is approximately 3%. The economy activities are at low levels in the region, and poor access to public services, as shown below, is one of the main factors for low human development indices (health condition, literacy rate etc.) These problems

make it more difficult to escape from poverty, creating a vicious circle.

- Junior high school dropout rate: 30% (Hunan Province average 3%, national average 3%).
- Hospital beds per 10,000 population: 21 (Hunan Province average 21, national average 24).
- Proportion of people able to obtain safe drinking water: 84% (Hunan Province average 96%, national average 91%).

(ii) Purpose and Description of the Project

The project aims to improve the living conditions and improve social and economic stability in the Wulingshan area in the northwest of Hunan Province, which has a high concentration of poor residents. The project comprises of construction of social service facilities (educational, public health and water supply facilities) and development of rural markets.

The proceeds of the loan will be applied to the procurement of equipment, materials and civil works for education, public health care, rural markets and water supply.

The executing agency for the project is Hunan Provincial People's Government (Address: No.1, Chengnan West Road, Changsha, P.O. Code 410007, Hunan Province Finance Department, Tel: 86-731-516-5186, Fax: 86-731-516-5179).

(8)-(13) Inland Higher Education Project
(Regional Vitalization, Market Economy Reform Support, and Environmental Conservation)

(i) Background and Necessity of the Project

In China the primary schools enrollment rate was 99% in 2001, with 96% enrollment for the junior secondary schools. With the spread of compulsory education, there is a growing need for tertiary education. The Chinese government's 10th Five-Year Plan calls for an enrollment rate of around 15% at tertiary schools (universities, graduate schools etc.) by 2005, up from a national average of 13% in 2001. The government's policy is to expand tertiary education in both quality and quantity.

Under this situation, inland higher education institutions require reinforcement from the following three aspects.

1) Regional vitalization: Supplying personnel with advanced skills to the key industries specified in the 10th Five-Year Plans of each province and autonomous region will encourage economic growth in the inland provinces and autonomous regions where a large economic disparity exist compared to coastal regions. Support for reemployment at higher education institutions will also help to mitigate the unemployment problem generated by state-owned enterprise reform. Training teachers of rural areas will also help to promote education in those areas.

2) Market economy reform support: Human resource development in higher education institutions will promote the shift to market economics by enhance the understanding of global standards and rules (including the WTO Agreement) and strengthening governance (greater transparency and efficiency of authority under law and administration).

3) Environmental conservation: Human resource development in higher education institutions and wider efforts in environmental research and other academic fields will help to strengthen China's action against the numerous environmental problems, such as the atmospheric pollution and water contamination.

(ii) Purpose and Description of the Project

The project will provide support in facilities (construction and equipping of educational/research facilities etc.) and services (personnel training etc.) to 55 universities that have a major role in regional vitalization, market economy reform support and environmental conservation in China's six inland provinces (Xinjiang Uygur Autonomous Region, Guangxi Zhuang Autonomous Region, Guizhou Province, Jilin Province, Anhui Province and Henan Province). Its aim is to upgrade higher education in both quality and quantity.

The proceeds of the loan will be applied to construction of school building, procurement of educational equipment, training teachers in Japan, etc.

The executing agencies for the project are as follows.

1) Xinjiang Uygur Autonomous Regional People's Government (Address: Minde Ave. No16, Urumqi City, Xinjiang, Xinjiang Uygur Autonomous Regional Finance Bureau, P.O.Code 830002, TEL: 86-991-2821351, FAX: 86-991-2810084)

2) Guangxi Zhuang Autonomous Regional People's Government (Address: 69 Taoyuan Road, Nanning, Guangxi, Bureau of Finance, Guangxi Zhuang Autonomous Region, P.O.Code 530021, TEL: 86-771-5331694, FAX86-771-5311214)

3) Guizhou Provincial People's Government (Address: No.346 Zhonghua North Road, Guiyang, Guizhou, Department of Finance, Guizhou Province, P.O.Code 550004, TEL: 86-851-6892359)

4) Jilin Provincial People's Government (Address: No.57 Renmin Street, Changchun, Jilin Province, Department of Education of Jilin Province, P.O.Code 130051, TEL86-431-8905828, FAX86-431-2760537)

5) Anhui Provincial People's Government (Address: 238 West Funan Road, Hefei, Anhui Province, Department of Finance of Anhui Province, P.O.Code 230061, TEL: 86-551-5100288, FAX86-551-5100204)

6) Henan Provincial People's Government (Address: No.27, Jingsan Road, Zhengzhou, Henan Province, Department of Finance of Henan Province, P.O.Code 450008, TEL: 86-371-5722312, FAX86-371-5722312)