1. Outline of Commitments of ODA Loans by Country

East Asia

China

October 23, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Beijing Urban Railway Construction Project	14,111	0.95*	—	40/10	—	Japan Tied	—
Xi'an Xianyang International Airport Terminal Expansion Project	3,091	0.95*	—	40/10	—	Japan Tied	—

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Guiyang Environment Model City Project (II)	8,169	0.75***	0.75***	40/10	40/10	Bilateral Tied	Bilateral Tied
Dalian Environment Model City Project (II)	3,202	0.75***	—	40/10	—	Bilateral Tied	—
Chongqing Environment Model City Project (II)	3,289	0.75***	0.75***	40/10	40/10	Bilateral Tied	Bilateral Tied
Shenyang Environmental Improvement Project (II)	6,196	0.75***	—	40/10	—	Bilateral Tied	—
Tianjin Wastewater Treatment Project	7,142	0.75*** 1.3** (South-East Suburb)	—	40/10 30/10	—	Bilateral Tied General Untied	—
Dalian Water Supply and Wastewater Treatment Project	3,309	0.75*** (Wastewater Treatment) 1.3** (Water Supply)	—	40/10 30/10	—	Bilateral Tied General Untied	—
Changsha Water Supply Project	4,850	1.3**	—	30/10	—	General Untied	—
Yingkou Water Supply Project	2,504	1.3**	—	30/10	—	General Untied	—
Tangshan Water Supply Project	2,841	1.3**	—	30/10	—	General Untied	—
Shaanxi Loess Plateau Afforestation Project	4,200	0.75***	—	40/10	—	Bilateral Tied	—
Shanxi Loess Plateau Afforestation Project	4,200	0.75***	—	40/10	—	Bilateral Tied	—
Inner-Mongolia Loess Plateau Afforestation Project	3,600	0.75***	—	40/10	—	Bilateral Tied	—
Zipingpu Multi-Purpose Dam Construction Project	32,199	1.3** (Generating Equipment) 1.8 (Others)	0.75***	30/10	40/10	General Untied	Bilateral Tied
Gansu Water-Saving Irrigation Project	6,000	1.3**	—	30/10	—	General Untied	—
Xinjiang Water-Saving Irrigation Project	14,400	1.3**	—	30/10	—	General Untied	—
Chongqing Urban Railway Construction Project	27,108	0.75***	0.75***	40/10	40/10	Bilateral Tied	Bilateral Tied
Shuoxian-Huanghua Railway Construction Project (IV)	11,581	1.8	—	30/10	—	General Untied	—
Heilongjiang Heihe-Bei'an Road Construction Project	12,608	1.8	0.75***	30/10	40/10	General Untied	Bilateral Tied
Shandong Tai'an Pumped Storage Power Station Project	18,000	0.75***	0.75***	40/10	40/10	General Untied	Bilateral Tied
Hubei Small-sized Hydropower Project	9,152	0.75***	—	40/10	—	General Untied	—
Gausu Small-sized Hydropower Project	6,543	0.75***	—	40/10	—	General Untied	—
Liaoning Television and Radio Infrastructure Improvement Project	3,210	1.8	—	30/10	—	General Untied	—
Wuhan Urban Railway Construction Project	2,894	0.75***	—	40/10	—	Bilateral Tied	—
Total (25 Commitments)	214,399						

* Special Yen (ODA) Loan ** Standard environmental project *** Special environmental project

1. Beijing Urban Railway Construction Project

Although still affected by the fallout of the recent Asian currency crisis, China has achieved remarkable economic growth under the reformist and open-door policy that started in 1979.

As economic development proceeds, with urban areas expanding and living standards rising Beijing, Shanghai, Guangzhou and other major cities increasingly face challenges caused by urban infrastructures that are less than satisfactory. Of particular concern is the worsening situation regarding urban traffic problems, including traffic congestions due to rapid motorization, which is becoming a drag on economic growth.

The urban traffic situation is deteriorating in China's capital city of Beijing. The city's total annual volume of transportation was some 6.8 billion people in the early 1990s, and has been expanding by an average rate of nearly 5% every year since. As a result, the shipping capacity of various transportation modules has not kept pace with the growing demand. In addition, delayed construction of the traffic network, such as roads and urban railways, and the lack of inner-city passenger mass transit systems has resulted in a higher number of taxis, small-sized passenger vehicles or other vehicles coming in from the outlying regions, thereby creating a perpetual traffic jam in the city.

In a bid to solve this problem, the government of Beijing has introduced an urban development plan that aims to develop the northern part of the city and build up a traffic system in the same area in order to eliminate the intense crowdedness in the central part of the city.

The project involves construction of a 40-km urban railway between Xizhimen and Dongzhimen as part of efforts to improve the traffic network, on the basis of the above-noted congestion alleviation/urban development plan, which is expected not only to contribute to reducing congestion and the development of the areas along the railway, but also to help reduce air pollution.

The proceeds of the loan will be used to purchase signal/communication equipment, power equipment, control/disaster prevention equipment, rolling stock, automated ticket gates, and depot equipment.

The executing agency is Beijing Mass Transit Railway Corporation, No. 2 Beiheyan, Xicheng District Beijing, P.O. Code 100044, China,
Tel: 86-10-62293659, Fax: 86-10-68324655.

2. Xi'an Xianyang International Airport Terminal Expansion Project

In the wake of the reformist and open-door policy introduced in 1979, the amount of transportation accounted for by the aviation sector in China has marked significant growth, as shown by an 18% average annual increase in the number of passengers and 15% in cargo volume from 1980 to 1990. In the 1990s, the sector continued to witness large growth; the number of passengers increased by an annual average of 25% during the five years from 1990 through 1995, while a 22% rise was registered in cargo volume. Both far outpaced the growth rates of the railway and other transportation sectors.

However, the development of infrastructure such as the terminal building, sewerage/waste water treatment system and other peripheral facilities of the airport, and the roads, railways and accommodation facilities that are essential for access to the airport, has failed to catch up with the rapidly expanding passenger volumes. This has led to a call for the construction and upgrading of airports that have the capacity to meet the growing demand. Further, construction and repair of airports located in inland areas is urgently required to rectify the economic disparity between coastal and inland regions.

Located in the outskirts of Xi'an City, Shaanxi, Xi'an Xianyang International Airport is not only one of the major airports in China, but also plays a core role in air traffic activities in the northwestern area of China. Since its completion in 1991, in sync with the country's robust economic growth, the airport has accommodated an ever-increasing number of passengers, which already reached 2.86 million in 1998 (the ninth largest in China), far surpassing the initial estimate of demand at 2.24 million for fiscal 2000 projected at the its planning stage.

On top of the rise noted above, there is an expectation that the airport, as one of the bases for the Grand Development Plan for Western Region, will see additional demand amid robust tourism demand and economic growth of this region in the future. Expansion of the airport facilities is thus urgently required.

The project is designed to improve the equipment and functions of the airport by expanding the existing terminal building for passengers (about 50,000m^2) and upgrading apron/utility facilities, with an eye to handling the growing number of passengers and bolstering the northwestern region's economy and commerce.

The proceeds of the loan will be applied to procurement of boarding bridges, air-conditioning equipment, and other passenger terminal building equipment.

The executing agency is Civil Aviation Administration of China, No. 155 Dongsi St. West, Beijing, P.O. Code 100710, China, Tel: 86-10-64091799, Fax: 86-10-64030868.

3. Guiyang Environment Model City Project (II)

4. Dalian Environment Model City Project (II)

5. Chongqing Environment Model City Project (II)

(1) Background and Necessity of the Project

Rapid economic development in recent years has led to acute environmental pollution in China. Conditions are serious enough to affect Japan and require prompt solution.

The Japan-China Environment Model City Initiative, proposed at the Japan-China Summit Conference held in 1997 during Prime Minister Hashimoto's administration, is designed to provide effective support in alleviating China's deepening environmental problems. The Initiative's objective is to implement intensive environmental improvement measures in model cities, which will then serve as models of success for other cities.

A committee of experts from Japan and China was established to promote the initiative and the three cities of Chongqing, Guiyang in Guizhou Province and Dalian in Liaoning Province were designated as model cities. A proposal summarizing the Initiative's basic policy (prioritize and implement intensive measures to prevent air pollution and develop environmental management capabilities) as well as projects to implement it was presented to the governments of Japan and China in April 1999.

The three cities are receiving various kinds of support from Japan. In addition to the ¥15,993 million in ODA loans provided in March 2000, a variety of projects such as training by the Japan International Cooperation Agency (JICA) are being planned and carried out. The Japan-China Environmental Improvement Seminar was held in March 2001 to introduce Japan's experience to China. In this way, the project also aims to make knowledge contributions to make JBIC assistance identifiably Japanese.

Guiyang Environment Model City Project (II)

Guiyang, a designated model city, suffers from serious air pollution caused by coal burning. The city relies heavily on coal for energy, and heavy chemical industries are predominant. Pollution is further exacerbated by the city's location in a basin. Sulfur dioxide concentrations in Guiyang are significantly higher than Level 2 of the national environmental quality standard applied to urban residential areas. They also exceed the 1967 average in Japan, when air pollution was at its worst.

Dalian Environment Model City Project (II)

Dalian, a designated model city, already enjoys broad support from Japan, shown by its long history of environmental cooperation with Kita-Kyushu City, a development survey conducted by JICA to help develop basic environmental plans, and other activities. Although the spread of central heating and city gas are improving the environment, the city is still heavily reliant on coal for energy, and air pollution from coal burning remains a serious problem. Sulfur dioxide concentrations, especially in winter, are significantly higher than Level 2 of the national environmental quality standard applied to urban residential areas.

Chongqing Environment Model City Project (II)

Chongqing, a designated model city, suffers from serious air pollution caused by coal burning. The city is surrounded by mountains, which results in low air circulation. It relies on coal for energy, and heavy chemical industries are predominant.

Like Guiyang, Chongqing ranks among the worst cities in China for sulfur dioxide concentrations, which are significantly higher than Level 2 of the national environmental quality standard applied to urban residential areas. They also exceed the 1967 average in Japan, when air pollution was at its worst.

(2) Objective and Description of the Project

Guiyang Environment Model City Project (II)

As part of the Japan-China Environment Model City Initiative, this project involves the implementation of measures to reduce air pollution at power plants, install monitoring systems, and construct low sulfur clean coal production facilities. These actions were proposed by the expert committee in an effort to improve Guiyang's air quality. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities. In phase one, ¥6,266 million in ODA loans were provided in March 2000 for the construction of gas supply facilities and other projects.

The proceeds of the loan will be used to procure exhaust gas desulfurization facilities, monitoring equipment, clean coal production facilities, and to employ consulting services to aid in the bidding process, construction administration and other matters.

The executing agency is Guizhou Provincial People's Government, Guizhou Province Japan-China Environment Model City (Guiyang) Project Office, No. 275 Qingyun Road, Guiyang, Guizhou Province, P.O. Code 550002, China, Tel: 86-851-5983010, Fax: 86-851-5983010.

Dalian Environment Model City Project (II)

As part of the Japan-China Environment Model City Initiative, this project implements measures to reduce air pollution at steel and cement plants. These actions were proposed by the expert committee in an effort to improve Dalian's air quality. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities. In phase one, ¥5,315 million in loans were provided in March 2000 for the construction of facilities to supply thermoelectric power and other projects.

The proceeds of the loan will be used to procure dust collectors, smelting furnaces, cement mills, and other equipment and materials required to address pollution sources at industrial plants.

The executing agency is Dalian Municipal People's Government, Dalian Municipal Finance Bureau, No. 138 Changjiang Road, Zhongshan District, Dalian, P.O. Code 116001, China, Tel: 86-411-2632833, Fax: 86-411-2635994.

Chongqing Environment Model City Project (II)

As part of the Japan-China Environment Model City Initiative, this project involves the construction of facilities to supply natural gas, development of monitoring systems, and installation of exhaust gas desulfurizers at power plants. These actions were proposed by the expert committee in an effort to improve Chongqing's air quality. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities. In phase one, ¥4,412 million in loans were provided in March 2000 to expand the natural gas supply system.

The proceeds of the loan will be used to procure natural gas supply equipment, monitoring equipment, exhaust gas desulfurizers, and to employ consulting services to aid in the bidding process and other matters.

The executing agency is Chongqing Municipal People's Government, Chongqing Municipal Finance Bureau, No. 234 Renmin Road, Yuzhong District, Chongqing, P.O. Code 400015, China, Tel: 86-23-63896094, Fax: 86-23-63896094.

6. Shenyang Environmental Improvement Project (II)

(1) Background and Necessity of the Project

Shenyang prospered in pre-war times as the leading industrial city in northeast China and continues to develop today as the capital of Liaoning Province. Shenyang's old industrial district has been enveloped in the process of urbanization, and from its position at the city's center, has an adverse effect on the urban environment. Industrialization also contributes to air pollution and other environmental problems.

Shenyang relies on coal for more than 70% of its energy and air pollution caused by soot and sulfur dioxide is a serious problem. The city's air pollution is worse than those of other cities in the northern part of China, with yearly average concentrations of sulfur dioxide significantly higher than Level 2 of the national environmental quality standard applied to urban residential areas.

In an effort to reduce air pollution, Shenyang has adopted policies to reduce industrial emissions, including altering manufacturing processes and promoting the relocation of industry outside the city. The city is also trying to improve air quality in the city center by implementing a project to supply thermoelectric power for both industrial and residential use.

(2) Objective and Description of the Project

This project is designed to improve air quality in Shenyang by implementing a thermoelectric power supply project and pollution control measures at industrial plants. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities. In Phase I, ¥5 billion in ODA loans were provided in December 1996 to construct power supply facilities. The current loans are provided as Phase II.

The proceeds of the loans will be used to procure boilers, power generators and other equipment to supply thermoelectric power, as well as goods and materials required to address pollution sources at industrial plants.

The executing agency is Shenyang Municipal People's Government, Shenyang Municipal Greening Project Office, No. 6 Huigong Street, Shenhe District, Shenyang, P.O. Code 110013, China, Tel: 86-24-22728632, Fax: 86-24-22730028.

7. Tianjin Wastewater Treatment Project

(1) Background and Necessity of the Project

Central Tianjin covers 330km^2 and has a population of 4.1 million. Despite its size, only 52% of wastewater is treated, and sewer services (piping networks) are available only in 55% of the city. Some areas do not have wastewater treatment systems, while others have systems that mix rain and wastewater and need to be improved. During the rainy season, insufficient capacity to treat wastewater results in untreated wastewater polluting the Hai River and the Bo Hai[1]. Further, drainage canals emit a foul odor in both the dry season when water levels are low and the rainy season when the area is inundated by floods.

Under these circumstances, the municipal authorities of Tianjin drew up the Tianjin Wastewater Treatment Project during the Ninth Five-Year Plan (1996-2000). This project was also designated a national priority project under the regulations established by the State Council of the People's Republic of China to prevent water pollution of the Bo Hai. In addition, Tianjin has set a target of an 84.5% wastewater treatment rate and 94.5% sewer service (piping) rate by 2010. The city continues to prioritize the implementation of the wastewater treatment projects under the Tenth Five-Year Plan.

Tianjin is divided into six sewer districts (Jizhuangzi, Xianyanglu, Shuanglin, Zhangguizhuang, Zhaoguli and Beichang). Despite some progress, Jizhuangzi and Zhaoguli are the only districts that have wastewater treatment plants at the present time. This project will expand the Jizhuangzi Wastewater Treatment Plant, build a new wastewater treatment plant in Xianyanglu, and install sewer pipes in the southeastern part of the city to connect with the Zhaoguli Wastewater Treatment Plant. The project is necessary to support Tianjin's sewerage system development plan, which will serve to raise living conditions in Tianjin, improve water quality and prevent pollution of the Hai River.

(2) Objective and Description of the Project

This project is designed to improve water quality in Tianjin's canals and rivers as well as the Bo Hai in the face of increasing domestic wastewater by expanding the Jizhuangzi Wastewater Treatment Plant (increasing daily capacity from 260,000 to 540,000m^3) and building the new Xianyanglu Wastewater Treatment Plant (with a daily capacity of 450,000m^3). It also seeks to raise the living conditions of the residents of Tianjin and surrounding areas by improving drainage canals (through installing new and upgrading existing pumping facilities) in the southeastern part of the city. This project falls into the three priority areas identified in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used for procurement of construction materials, sludge treatment equipment, pumps, etc.

The executing agency is Tianjin Municipal People's Government, Tianjin Municipal Finance Bureau, No. 4 Qufu Road, Heiping District, Tianjin, P.O. Code 300042, China, Tel: 86-22-23303740, Fax: 86-22-23313455.

Note: 1) The Chinese government has identified as priorities three rivers (Hai, Liao and Huai) and three lakes (Tai, Chao and Dian), where pollution is especially serious.

8. Dalian Water Supply and Wastewater Treatment Project

(1) Background and Necessity of the Project

Dalian comprises six districts (Lushunkou, etc.), three cities (Wafangdian, Zhuanghe, etc.), and one county, and has a total population of 5.433 million. Its economy has enjoyed favorable growth in recent years and is expected to expand at an average annual rate of 12-13% in the coming years. A major city with a population of this size needs an adequate water supply (for residential, industrial and other uses) in order to engage in economic activity and achieve economic growth. However, Dalian's water supply is insufficient because roughly 75% of the city's average annual precipitation (724mm) is concentrated in the June-September period and because water purification facilities have not been installed in outlying areas. The city also has an insufficient number of plants to treat wastewater generated by using the water supply.

Insufficient water supply is not the only problem that Dalian currently faces. Some areas, e.g., Zhuanghe, are forced to supply drinking water of substandard quality because the existing water supply facilities are aging. Moreover, a lack of wastewater treatment facilities in certain outlying areas (Wafangdian, Lushunkou, etc.) is causing a wide range of problems, including 1) pollution of city rivers, 2) ocean pollution from polluted rivers, 3) damage to farm crops from the use of polluted water in agriculture, and 4) health problems caused by groundwater pollution.

Under these circumstances, the construction of water supply and sewage facilities in Dalian's outlying areas (Wafangdian, Zhuanghe, Lushunkou, etc.) is necessary. This project, in combination with the Dalian Environment Model City Project, is expected to contribute to an overall improvement in Dalian's environment.

(2) Objective and Description of the Project

This project is designed to ease water demand, improve water quality in city rivers, and raise living conditions in Dalian's outlying areas (Wafangdian, Zhuanghe and Lushunkou). To achieve these goals, the project will build water purification plants and other water supply facilities (Wafangdian: New facilities with a daily capacity of 65,000m^3; Lushunkou: New facilities with a daily capacity 50,000m^3) as well as settling basins and other wastewater facilities (Wafangdian: New facilities with a daily capacity 60,000m^3; Lushunkou: New facilities with a daily capacity 30,000m^3). This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure construction materials, pumps, water distribution pipes, etc.

The executing agency is Dalian Municipal People's Government, Dalian Municipal Finance Bureau, No. 138 Changjiang Road, Zhongshan District, Dalian, Liaoning Province, P.O. Code 116001, China, Tel: 86-411-2632833, Fax: 86-411-2635994.

9. Changsha Water Supply Project

(1) Background and Necessity of the Project

Changsha is the capital of Hunan Province, has a population of 5.77 million, comprising five districts and four outlying counties, and is the political, economic, and cultural center of the province. Over the past ten years, Changsha's population has grown at the rapid rate of 2.8% per year. By the end of 1999, the population in urban districts had reached 1.69 million, which is higher than the 2010 target of 1.6 million set down in the long-term plan prepared in 1990. Further, population influx from outside the city has reached 540,000.

Changsha's water system is currently divided into two districts and has a total of six water purification plants. Although the Hedong district has four water purification plants with a total daily capacity of 740,000m^3, growing demand for water as a result of population increases and higher standards of living means that facilities are operating at a daily maximum water supply of

940,000m^3. Thus, the daily purification capacity already falls short by 200,000m^3. During summer or other times when facilities are forced to operate beyond their capacity, treatment measures are simplified by shortening filtration time or distributing water that has only been disinfected.

Even when using forecasts that do not consider the influx of population, water demand in the Hedong district is expected to reach 1,250,000m^3 per day by 2008, creating a shortfall in capacity of 510,000m^3 per day. Thus, the water supply shortage will become increasingly serious.

(2) Objective and Description of the Project

This project is designed to meet rising water demand caused by economic development and population growth by using the Xiang River, which flows through the city, as a water source, and building water intakes, water conveyance facilities, water purification facilities with a daily capacity of 500,000m^3, and distribution facilities. This will enable a stable supply of safe water and improve living conditions. This project falls into the three priority areas set forth in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure construction materials, pumps, valves, water transmission and distribution pipes, etc.

The executing agency is Changsha Municipal People's Government, Finance Bureau of Changsha, Government Building No. 7, No. 4 Fanzheng Road, Changsha, Hunan, P.O. Code 410005, China, Tel: 86-731-2228567, Fax: 86-731-2228567.

10. Yingkou Water Supply Project

(1) Background and Necessity of the Project

Yingkou lies 200km north of Dalian, Liaoning, located at the base of the Liaodong Peninsula, and has a population of around 600,000. Yingkou has supplied water through its water purification plants using ground water and surface water from the Liao River as primary water sources. Improved living standards and population growth, however, have resulted in chronic water shortage. Further, a lack of rainfall in recent years has lowered the water table while pollution of the Liao River has led to the idling of some facilities. Water is available for only eight hours a day. Consequently, people have to manage by storing water in plastic tanks. In the districts targeted by this project, daily water usage stood at 70*l* per person in 1999. This figure is roughly half the 150*l* average in other cities of similar size and about one-third the 1999 national average of 217*l*.

Even with a return to normal annual rainfalls and idle facilities being able to resume normal operation as a result of improved source water quality from the Liao River Water Quality Improvement Project, a daily water shortfall of some 120,000m^3 is projected for 2008.

(2) Objective and Description of the Project

This project is designed to help Yingkou address its current water shortage, which is becoming more serious every year because of economic development and population growth, as well as meet future demand. These goals will be achieved by building water purification plants with a total daily treatment capacity of 120,000m^3 and water distribution facilities in coordination with the construction by the municipal water department of a new dam on the Biliu river exclusively for water supply purposes. This will enable a stable supply of safe water and improve living conditions. This project falls into the three priority areas set forth in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure construction materials, pumps, valves, water transmission and distribution pipes, etc.

The executing agency is Yingkou Municipal People's Government, Finance Bureau of Yingkou, No. 6 Bohai Street, Yingkou, Liaoning Province, P.O. Code 115000, China, Tel: 86-417-2833365, Fax: 86-417-2833347.

11. Tangshan Water Supply Project

(1) Background and Necessity of the Project

Tangshan is located on the eastern edge of the North China (Huabei) Plain, facing the Bo Hai to the south. The city, with a population of 6.90 million, of which 1.86 million lived in urban areas in 1998, is the fourth largest in Hebei Province. Tangshan is an industrial city that functions as the nation's energy base for coal and oil, and also as a center for the distribution of agricultural produce in northern China. In recent years, Tangshan has also gained national recognition for its ceramics.

After a devastating earthquake in 1976, Tangshan focused on rebuilding urban districts. The three central districts in the city are serviced by a water purification plant with a daily capacity of 500,000m^3. Outlying districts, however, have only small-scale water distribution facilities that use groundwater as a source, and the residents rely on private and community wells. In areas where facilities are inadequate, indiscriminate excavation of private wells has made it difficult to ensure water quality and caused land subsidence at water sources.

(2) Objective and Description of the Project

This project is designed to meet rising water demand caused by economic development and population growth by building water intake wells, water distribution plants and water supply and distribution facilities with a total daily capacity of 210,000m^3 in six municipal areas (districts and counties). This will enable a stable supply of safe water and improve living conditions. This project falls into the three priority areas set forth in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure construction materials, pumps, valves, water transmission and distribution pipes, etc.

The executing agency is Tangshan Municipal People's Government, Urban Construction Bureau of Tangshan, No. 7 Xishan Road, Tangshan, Hebei Province, P.O. Code 063000, China, Tel: 86-315-2801336, Fax: 86-315-2848101.

12. Shaanxi Loess Plateau Afforestation Project

13. Shanxi Loess Plateau Afforestation Project

14. Inner-Mongolia Loess Plateau Afforestation Project

(1) Background and Necessity of the Project

During the Spring and Autumn and Warring States periods, the Loess Plateau was a fertile area with a forestation rate of over 50%. War and excessive land clearance, however, has caused this rate to fall to 6% today. The region's environmental conditions and forestation rate are among the worst in China. The Loess Plateau, composed of clay soil, is losing 0.2-2cm of topsoil per year. When land is bare and lacks a covering of vegetation, weather can easily erode topsoil. Soil erosion is making the Loess Plateau less fertile, hastening the process of desertification, and is also cutting off water flows in downstream regions of the Yellow River. Under these circumstances, China's government made afforestation a top priority in 2000 and has launched a full-fledge campaign to restrict farming and promote afforestation. Despite this effort, because of China's vast size, the forestation rate has improved little.

Shaanxi Loess Plateau Afforestation Project

The Yellow River flows along Shaanxi's northern and eastern borders, while the Loess Plateau covers the northern half of the province. This area is threatened by desertification. In Shaanxi's agricultural sector, the average per capita net income was 1,406 yuan in 1998, some 35% less than the national average of 2,161 yuan. Moreover, in the approximately 30 counties (towns) targeted by this project, average per capita net income is 5% lower than Shaanxi's overall average. Although residents in these areas have managed to rise above poverty levels as defined in China, their social and economic conditions remain unstable and any kind of disaster or shock would likely return them to an impoverished state. Considering that impoverished people tend to use natural resources without regard to consequence, it is necessary to raise income levels of farm households by planting fruit trees and timber forests in order to create synergy between improving the environment and alleviating poverty.

Shanxi Loess Plateau Afforestation Project

The Yellow River flows along Shanxi's western and southern borders, while the Loess Plateau covers the western half of the province. This area is threatened by desertification. In Shanxi's agricultural sector, the average per capita net income was 1,858 yuan in 1998, some 20% lower than the national average of 2,161 yuan. Moreover, in the approximately 30 counties (towns) targeted by this project, average per capita net income is 10% lower than Shanxi's overall average. Although residents in these areas have managed to rise above poverty levels as defined in China, their social and economic conditions remain unstable and any kind of disaster or shock would likely return them to an impoverished state. Considering that impoverished people tend to use natural resources without regard for consequence, merely improving the natural environment by protecting forests is not enough. It is also necessary to raise income levels of farm households by planting fruit trees and timber forests in order to create synergy between improving the environment and alleviating poverty.

Inner-Mongolia Loess Plateanu Afforestation Project

The Inner-Mongolia Autonomous Region is 3.2 times the size of Japan. The length of this narrow administrative district is almost equivalent to that from Okinawa to the Northern Territories. The Yellow River flows along the south-central part of the region, while the Loess Plateau covers the river basin. This area is threatened by desertification. In China's agricultural sector, the

national average per capita net income was 2,161 yuan in 1998. In the approximately ten cities and counties targeted by this project, average per capita net income is some 5% lower than the national average. Although residents in these areas have managed to rise above poverty levels as defined in China, their social and economic conditions remain unstable and any kind of disaster or shock would likely return them to an impoverished state. Considering that impoverished people tend to use natural resources without regard for consequence, merely improving the natural environment by protecting forests is not enough. It is also necessary to raise income levels of farm households by planting fruit trees in order to create synergy between improving the environment and alleviating poverty.

(2) Objective and Description of the Project

This project is designed to contribute to stable social and economic conditions in the Shaanxi Loess Plateau region, Shanxi Loess Plateau region and Inner-Mongolia Loess Plateau region raise living standards in the region as well as in downstream regions of the Yellow River, and improve China's natural environment. These goals will be achieved by improving the region's forestation rate, preventing soil erosion, and raising agricultural income through planting 100,000ha of protection forests, timber forests and fruit tree groves. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure seedlings, fertilizer, vehicles, labor, etc.

Shanxi Loess Plateau Afforestation Project

The executing agency is Shaanxi Provincial People's Government, Shaanxi Province Finance Agency, No. 13 Bingjiaoxiang, Xi'an, Shaanxi Province, P.O. Code 710002, China, Tel: 86-29-761-1239, Fax: 86-29-762-7009.

Shanxi Loess Plateau Afforestation Project

The executing agency is Shanxi Provincial People's Government, Shanxi Provincial Agricultural Agency, No. 133 Xinjian Road, Taiyuan City, Shanxi Province, P.O. Code 030002, China, Tel: 0351-407-3814, Fax: 0351-412-1062.

Inner-Mongolia Loess Plateau Afforestation Project

The executing agency is Inner-Mongolia Autonomous Region People's Government, Inner-Mongolia Autonomous Region Finance Agency, No. 1 Xinhua Street, Hohhot, Inner-Mongolia Autonomous Region, P.O. Code 010055, China, Tel: 86-471-696-4824, Fax: 86-471-694-5308.

15. Zipingpu Multi-Purpose Dam Construction Project

(1) Background and Necessity of the Project

Sichuan is a major agricultural province and plays a significant role in supplying the nation's food. Promoting agricultural development in the province is important from the standpoints of maintaining a stable domestic food supply and eradicating poverty among the province's farming population. For this reason, building irrigation facilities is a priority in the province. Furthermore, in China's southwest region, which includes Sichuan Province, there is an abundance of water resources that are underutilized because of a lack of irrigation facilities. With insufficient capabilities to cope with droughts and flood, and domestic policies that recognize the need to replace thermal power with environmentally friendly hydroelectric power and improve river environments, there is a great potential for developing water resources. In light of such circumstances, as part of the Development of Western Region, China is placing a high priority on the rational development (uniform administration of water sources) and effective use of its water resources. Sichuan is also making efforts to promote economic development by utilizing its abundant water resources, while at the same time reducing the burden placed on the environment (electric power and river environment).

Irrigated land in the vicinity of Chengdu currently receives water from the Dujiangyan Dam on the midstream Minjiang River, which flows through Sichuan Province. In the dry season, however, this water is prioritized for residential and industrial use, resulting in a shortage of irrigation water. The province faces two serious problems. First, water demand for residential and industrial use is expected to keep growing as a result of further economic development. Authorities need to provide a stable supply of water for all uses, including environmental use to reduce water pollution in rivers. The second problem is addressing future imbalances in supply and demand caused by rising demand for electric power.

(2) Objective and Description of the Project

This project is designed to stabilize the balance of supply and demand for water, which is in tight supply in Chengdu, ensure water for irrigation, residential, industrial and environmental uses, create clean energy through hydroelectric power generation in response to rising demand for electric power within the province, and prevent flooding. These goals will be achieved by building a multi-purpose dam in the upper reaches of the Minjiang River in Sichuan Province. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The implementation of this project is expected to help enhance the efficiency and yield of agricultural production by supplying irrigation water, help improve hygiene while reducing water pollution in rivers, and provide a major boost to economic activity.

The proceeds of the loan will be used for dam construction, to procure construction materials, hydraulic turbine generators, main transformers and switchgears, and to employ consulting services on execution management coordination of construction, environmental concerns, and other matters.

The executing agency is Sichuan Provincial People's Government, Sichuan Provincial Finance Bureau, No. 37 Nanxing Street, Chengdu, Sichuan Province, P.O. Code 610016, China, Tel: 86-28-6665220, Fax: 86-28-6711727.

16. Gansu Water-Saving Irrigation Project

(1) Background and Necessity of the Project

With water resources per capita at less than one quarter of the world average, China is a water-scarce country. In particular, Gansu Province is an arid region and farming is not possible without irrigation facilities. Approximately 70% of Gansu's cultivated land is located in the Loess Plateau, which would easily turn to desert without a covering of vegetation. Gansu's cultivated acreage accounts for only 7.7% of the total province, while desert accounts for 15%. This is a harsh natural environment. At the same time, Gansu's current irrigation facilities primarily use mud canals that have high water waste. Gansu intakes roughly 7,800,000,000m^3 (1993-1997 average) of surface water for agriculture. By comparison, the entire Yellow River basin intakes 36,200,000,000m^3 (1988-1992 average) from the Yellow River. Gansu therefore has the highest level of water intake in the upper Yellow River region. From the 1970s, the Yellow River has dried up for extended periods each year. Moreover, the point at which the river runs dry has been moving gradually upstream from the river's mouth, reaching some 500km in 1997. As these conditions grow more severe, Gansu, which is conspicuous in the amount of water it lifts from the Yellow River, faces an urgent need to reduce its water intake.

(2) Objective and Description of the Project

This project is designed to prevent desertification by increasing the covering of vegetation, improve living conditions of farmers by increasing crop yields, help ease the drying of the Yellow River by lowering water intake from the river system, and contribute to improving China's natural environment. These goals will be achieved by paving mud canals and installing sprinklers and other water saving irrigation equipment in the approximately 80,000ha of the current irrigation districts that span six regions of Gansu Province. This project falls into the the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used for civil engineering work as well as to procure sprinklers and other water-saving irrigation equipment, materials, etc.

The executing agency is Gansu Provincial People's Government, Gansu Provincial Finance Bureau, No. 136 Jingning Road, Lanzhou, Gansu Province, P.O. Code 730030, China, Tel: 86-931-885-3668, Fax: 86-931-882-0288.

17. Xinjiang Water-Saving Irrigation Project

(1) Background and Necessity of the Project

With water resources per capita at less than one quarter of the world average, China has a serious shortage of water. In particular, the Xinjiang Uyghur Autonomous Region is an arid region and farming is not possible without irrigation facilities. The land would easily turn to desert without a covering of vegetation.

Xinjiang's cultivated acreage accounts for less than 2% of the total province, while desert and barren land account for 27%. This is a harsh natural environment. The forestation rate is under 2%. Moreover, despite the intense need for conserving water in this arid land, the current irrigation facilities primarily use mud canals that have high water waste. Water for agricultural use, which has a high waste, accounts for 97% of the total water duty. Xinjiang's main water source is the Tarim River and its tributaries. The Tarim is China's longest inland river. The water waste mentioned above, however, is causing the lower reaches of the river to dry up and turn to desert. For example, an 80% reduction in flow volume in the middle reaches of the Tarim River over the previous half-century has caused instances of the river going dry. The national highway running alongside the Tarim River has eroded into desert in more than 140 places. It is feared that this process will continue.

(2) Objective and Description of the Project

This project is designed to prevent desertification by increasing the covering of vegetation, improve living conditions of farmers by increasing crop yields, help ease the drying of the Tarim River by lowering water intake from the river system, and contribute to improving China's natural environment. These goals will be achieved by paving mud canals, installing sprinklers and other water-saving irrigation equipment, and exploiting ground water in the approximately 100,000ha of the current irrigation districts that span nine regions of Xinjiang. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and an emphasis on inland regions to reduce regional disparities.

The proceeds of the loan will be used for civil engineering work as well as to procure sprinklers and other water-saving irrigation equipment, materials, etc.

The executing agency is Xinjiang Uygur Autonomous Region People's Government, Xinjiang Uygur Autonomous Region Water Agency, No. 19 Heilongjiang Road, Urumqi, Xinjiang Uygur Autonomous Region, P.O. Code 830000, China, Tel: 0991-585-1105, Fax: 0991-588-3406.

18. Chongqing Urban Railway Construction Project

(1) Background and Necessity of the Project

Although China was affected by the recent Asian currency crises, the country has seen favorable economic growth since launching its policy of economic reform in 1978. Unfolding economic development, the growth of cities, and an improvement in living standards have highlighted the problems of undeveloped urban infrastructure in Beijing, Shanghai, Guangzhou, and other major cities around China. In particular, rapid motorization is aggravating traffic congestion and other municipal traffic problems, which is stifling economic development.

Chongqing is the center of economic, transportation, and trade activity in the upper reaches of the Changjiang River. The city's traffic problems are growing more serious. Central Chongqing has a population of 2.4 million. Because of the city's hilly topography, it is decentralized and comprises 12 small urban districts. Economic development in recent years has resulted in a marked increase in traffic congestion in the city center. This limits the city's ability to function as an urban center, and car exhaust is increasing the level of air pollution. Chongqing is thus urgently required to ease traffic congestion and reduce air pollution.

(2) Objective and Description of the Project

This project is designed to ease traffic congestion, provide massive and stable transportation, and reduce air pollution, in conjunction with the Chongqing Environment Model City Project, by building a monorail system in the city as an addition to the road construction work under the existing traffic control measures. Both the national government and the Chongqing local government have prioritized urban railways in their Ninth Five-Year Plans. This project marks the first monorail project in China and is designated as one of the ten major construction projects to begin in fiscal 2000 under the Development of Western Region.

As part of the city's effort to improve its traffic network with the goal of relieving traffic congestion and promoting urban renewal, this project involves construction of a suspended monorail system in the 14-km portion from Jiaochangkou to Dayancun of the 17-km stretch between Jiaochangkou and Xinshancun, as the first phase of construction. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure turnouts, signal and communications equipment, power equipment, administration and emergency equipment, rail cars, vehicle depot equipment, etc.

The executing agency is Chongqing Municipal People's Government, No. 234, Renmin Road, Chongqing, P.O. Code: 400015, China, Tel: 86-23-63855867, Fax: 86-23-63855867.

19. Shuoxian-Huanghua Railway Construction Project (IV)

(1) Background and Necessity of the Project

As of the end of 1999, railroads handled 32% (ton-kilometer basis) of China's entire freight traffic and 37% (persons-kilometer basis) of its passenger traffic. Although the share of rail traffic has been declining since the early 1990s with the development of other modes of transportation (roads and airports), rail transport remains very important. The current density of rail lines is approximately 70km/10,000m^2. This figure still lags behind demand and China needs to continue building rail lines as well as make efforts to improve the speed and efficiency of railway operations.

China has prioritized the development of electric power resources as a driving force behind high economic growth, making particular efforts to boost its capacity to generate thermal power. As of the end of 1999, China relies on coal for roughly 70% of its energy consumption. However, the coal-producing regions are located in Shanxi and other inland and western provinces, while the coal-consuming regions are located primarily along the coast. As China developed its coal resources, because of the ability of railways to transport high volumes over long distances at a low cost, they assumed an important role in easing bottlenecks in coal supply. Transport capacity, however, has reached its limit and urgent measures are needed.

This Shuoxian-Huanghua Railway Project involves development of the Shenfu-Dongsheng Coal Mine, which is located along the railway, inland on the border between Inner-Mongolia and Shaanxi Province. The mine produces high-quality coal having low sulfur, low phosphorous and medium calorific value. The development of the mine and improving the means to transport its coal will enhance coal transportation capacity and ensure that energy resources reach coastal regions. The railway will help solve the bottleneck in coal supply and transport to improve the environment and increase the efficiency of economic development.

China will continue to rely on coal as its primary energy source. Therefore, the country needs to further increase its rail transport capacity to ensure a stable supply of coal to primary users in coastal regions. In particular, China needs to move quickly to increase the capacity of the railway targeted by this project because environmental concerns are expected to heighten demand for the high-quality coal having low sulfur, low phosphorous and medium calorific value produced at the Shenfu-Dongsheng Coal Mine.

(2) Objective and Description of the Project

This project involves construction of an electrified double-track railway (159km of the 599-km railway is single-track) between Shouxian (Shanxi Province) and Huanghua Port (Hebei Province) to help solve China's coal transportation problems. The railway will help ease the supply shortage of coal in eastern coastal regions by expanding the transport capacity for high-quality coal produced at the Shenfu-Dongsheng Coal Mine and in Shanxi Province. The project will also contribute to the development of inland regions and improvment of the environment through the use of high-quality coal.

A total of ¥60,420 million in ODA loans were provided from 1995 to 1997, and the current fiscal year marks the final phase of the project.

The proceeds of the loan will be used to purchase electric locomotives and freight cars in order to enhance coal transportation capacity. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The executing agency is Shenhua Group Corporation, No. 22 Xibinhelu, Andingmen, Dongcheng District, Beijing, P.O. Code 100011, China, Tel: 86-10-64485019, Fax: 86-10-64485967.

20. Heilongjiang Heihe-Bei'an Road Construction Project

(1) Background and Necessity of the Project

China had 1,350,000km of road at the end of 1999, which is relatively low considering the country's size. China's road density remains at around 0.14km/km^2, compared to 0.63 in the Philippines, 0.20 in Thailand, 0.20 in Malaysia and 0.19 in Indonesia. Moreover, since more than 50% of all roads are operating with average annual traffic exceeding designed traffic volume, road traffic conditions are growing worse every day. In particular, access roads to arterial highways, major urban roadways and harbors are in a state of permanent gridlock, which is eroding transport efficiency.

In response to these traffic conditions, China's government built a national highway system consisting of five north-south highways and seven east-west highways. Nevertheless, provincial highway systems are now required to supplement national highways.

Heilongjiang is pushing forward the development of a road system that covers the entire province, which will serve as a base for economic growth. This road is one of the regional systems and a leg of National Highway 202, which connects Heihe, Heilongjiang and Dalian, Liaoning. This is a designated project in Heilongjiang's Eighth (1991-1995) and Ninth (1996-2000) Five-Year plans and work on this road was an urgent necessity.

Although the existing road in this section has two-lanes, the conditions of the unpaved dirt road are poor due to frequent use by large trucks, and mountainous areas have numerous steep inclines. Moreover, road access is limited and roads sometimes impassable during the cold and snowy winter because accidents frequently occur on the icy road surfaces. These conditions present an obstacle to raising the living standards of residents along the road as well as to regional economic development.

(2) Objective and Description of the Project

The poverty rate in rural area in Heilongjiang is higher than the national average, and three poor counties are located alongside the route targeted by this project. This project will help ease poverty in these areas by providing

them with stable access. The project is also expected to foster border trade between the Heihe District and Russia, contribute to the creation of a provincial road system, and promote regional economic activity such as the development of agricultural, forest and mineral resources and the establishment of economic development zones.

This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used for civil engineering work for road construction, to procure auxiliary equipment for interchanges, tollbooths, service areas, etc., and maintenance and administrative facilities, and to employ consulting services on project supervision.

The executing agency is Heilongjiang Provincial People's Government, Heilongjiang Provincial Highway Construction Agency, 15th Floor Tower A, No. 18 Hengshan Road, Xiangfang District, Harbin, Heilongjiang Province, P.O. Code 150036, China, Tel: 86-451-2346816, Fax: 86-451-2337880.

21. Shandong Tai'an Pumped Storage Power Station Project

(1) Background and Necessity of the Project

China has prioritized the development of electric power resources as a driving force behind high economic growth. During the ten-year period ended in 1998, the country boosted its power generation capacity 2.4-fold and the amount of electricity generated 2.1-fold. Nevertheless, emphasis was placed on expanding the quantity of electric power rather than on quality and efficiency. As a result, water resources in inland regions, which still have districts that lack adequate supply facilities, are not being used efficiently, making China heavily reliant on coal-fired thermal power plants. Pollution and problems with transporting coking coal are growing more serious. Under these circumstances, China is focused on encouraging an adjustment in its energy structure through such means as expanding the use of clean energy, including pumped storage power generation as well as small-sized hydropower generation in poor and agricultural districts.

Shangdong's peak-load power consumption in 2000 was estimated at 13,300MW and its minimum load at 8,300MW (a difference of 5,000MW, or roughly 36% of the peak). This gap is expected to grow wider in the future. Shandong relies almost entirely on thermal power plants, and adjusts power output in response to the gap through daily start and stop (DSS) operations. DSS operations, however, place a heavy burden on the environment, shorten the working life of power generators, lower thermal efficiency by repeatedly starting and stopping power generation and having mid-level output, and are accompanied by unplanned suspensions of power generating units, resulting in noticeably higher maintenance and operating costs.

(2) Objective and Description of the Project

This project involves construction of a 1000MW pumped storage power station in Shandong Province, where air pollution is growing worse. It aims to efficiently supply electric power in response to surging peak loads while giving due consideration to environmental concerns, thereby contributing to Shandong's economic development. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure major equipment (hydraulic turbines, generators, etc.), gas insulated switchgears, cable and auxiliary equipment, and substation facilities, and to employ consulting services to assist in the bidding process for power station components, checking design details, supervising the project and formulating policies to address environmental concerns.

The executing agency is State Power Corporation of China, No. 137 Fuyou Street, Xicheng District, Beijing, P.O. Code 100031, China, Tel: 86-10-63415027, Fax: 86-10-66087958.

22. Hubei Small-sized Hydropower Project

23. Gansu Small-sized Hydropower Project

(1) Background and Necessity of the Project

China has prioritized the development of electric power resources as a driving force behind high economic growth. During the ten-year period ended in 1998, the country boosted its power generation capacity 2.4-fold and the amount of electricity generated 2.1-fold. Nevertheless, emphasis was placed on expanding the quantity of electric power rather than on quality and efficiency. As a result, water resources in inland regions, which still have districts that lack adequate supply facilities, are not being used efficiently, making China heavily reliant on coal-fired thermal power plants. Pollution and problems with transporting coking coal are growing more serious. Under these circumstances, China is focused on encouraging an adjustment in its energy structure through such means as expanding the use of clean energy, including pumped storage power generation as well as small-sized hydropower generation in poor and agricultural districts.

The target districts in this project (Changyang County, Enshi City, Baokang County, Zhangye City in Zhangye District and Wen County in Longnan District) enjoy an abundance of water resources. Supply of electric power, however, has not kept pace with surging demand. Eliminating the power shortage that is hindering economic development has become a major issue. The target districts have all been designated by the State Council as trial counties for small-sized hydropower projects to promote Chinese-style rural electrification.

(2) Objective and Description of the Project

Hubei Small-sized Hydropower Project

This project is designed to increase power supply capacity and contribute to economic development in poor and agricultural districts by increasing power supply capacity in target districts. These goals will be achieved by tapping into Hubei's abundant water resources and building small-sized hydropower plants with output-regulating capabilities. The plants will be equipped with installed capacity of 12MW × 3 generators in Changyang County, 10MW × 3 generators in Enshi City, and 30MW × 2 generators in Baokang County. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used for constructing dams, canals and power plants, for installing electrical machinery, and for procuring generators, steel structures, main transformers, switchgears, etc.

The executing agency is Hubei Provincial People's Government, No. 8 Zhongbei Road, Wuchang District, Wuhan, Hubei Province, P.O. Code 430071, China, Tel: 86-27-87844986-30216, Fax: 86-27-87811658.

Gansu Small-sized Hydropower Project

This project is designed to increase power supply capacity and contribute to economic development in poor and agricultural districts by increasing power supply capacity in target districts. These goals will be achieved by tapping into Gansu's abundant water resources and building small-sized hydropower plants with output-regulating capabilities. The plants will be equipped with installed capacity of 15MW × 3 generators and 7MW × 1 generator in Zhangye City in Zhangye District and 20MW × 3 generator in Wen County in Longnan District. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used for constructing dams, canals and power plants, and for procuring generators, steel structures, transmission and transformation equipment, construction materials, etc.

The executing agency is Gansu Provincial People's, No. 136 Jingning Road, Lanzhou, Gansu Province, P.O. Code 730030, China, Tel: 86-931-8853668, Fax: 86-931-8820288.

24. Liaoning Television and Radio Infrastructure Improvement Project

(1) Background and Necessity of the Project

China's government is taking a variety of actions in response to the IT revolution and the growth of the information society. In the broadcasting sector, authorities are making efforts to raise the quality and quantity of television and radio broadcasting as well as transmit information that meets the needs of audiences. There is recognition in China that accelerating the development of a market economy requires the introduction of a new regulatory system, the provision of more extensive and effective communication of economic and social information to the public, and the dissemination of education and knowledge to the general public in order to develop the human resources needed to support a market economy.

The broadcasting stations of Liaoning's provincial government (general, educational and radio stations) are all lacking in program production capacity. Their studios, recording equipment and program production facilities are insufficient and out of date, making it difficult for them to produce programming that meets their audiences' needs. They cope with these conditions by using programming produced at broadcasting stations in other provinces and by rebroadcasting the same programs. The network to transmit programming between cities within the province is inadequate, and people living in remote areas have limited access to emergency information and educational programming broadcasted by the Liaoning Broadcasting and Television Bureau. Improving this situation is an urgent issue.

Moreover, Liaoning Province in the northeastern region of China is situated between the remote Jilin and Heilongjiang provinces and coastal areas. As a step toward building an information network that spans the entire country, developing transmission facilities in Liaoning will allow Jilin and

Heilongjiang provinces to improve their access to information, as well as bridge the digital divide between coastal and inland regions.

(2) Objective and Description of the Project

This project is designed to raise the quality and quantity of broadcast program production in Liaoning Province, promote the transmission of information between cities by installing broadcast transmission facilities, improve public access to information, and in particular, promote the transmission of emergency information and educational programming to remote areas as well as bridge the digital divide.

This project will increase the quality and quantity of independently produced programming, improve public access to a variety of information, and contribute to raising economic and cultural standards. It will further improve access to information in remote inland areas.

The proceeds of the loan will be used to procure program production equipment for television stations (general and educational stations) and radio stations, and transmission equipment, etc.

The executing agency is Liaoning Broadcasting and Television Bureau, No. 79 Wenhua Road, Heping District, Shenyang, Liaoning Province, P.O. Code 110003, China, Tel: 86-24-23187609, Fax: 86-24-23187646.

25. Wuhan Urban Railway Construction Project

(1) Background and Necessity of the Project

Although China was affected by the recent Asian currency crises, the country has seen favorable economic growth since launching its policy of economic reform in 1978. These policies have accelerated economic development, the growth of cities, and an improvement in living standards. But, at the same time, these trends have highlighted the problems of undeveloped infrastructure in Beijing, Shanghai, Guangzhou, and other major cities around China. In particular, traffic congestion due to rapid motorization and other municipal traffic problems is growing worse and has constrained economic development.

Wuhan in Hubei Province has a long and prosperous history as an important transportation hub where north-south railways intersect with east-west river transportation on the Changjiang. The city has also seen remarkable economic development in recent years as the central city on the mid to lower reaches of the Changjiang River. It is a model example as the center of inland economic development.

Recent economic growth in Wuhan has resulted in a substantial increase in road traffic within the urban area. The number of vehicles in Wuhan has increased from tens of thousands at the end of the 1980s to roughly 300,000 in 1998. A lack of mass transportation has led to an increase in the number of compact cars (mainly taxis) and to a concentration of traffic onto a few major roads like Jiefang Road due to the city's size and topography. This has resulted in a state of near-permanent gridlock and is a major source of air pollution.

(2) Objective and Description of the Project

This project is designed to provide Wuhan with mass transit capabilities, supplement previous policies to ease traffic congestion by building more roadways, help ease traffic congestion on major roadways, and reduce air pollution. As part of Wuhan's effort to improve its traffic network with the goal of relieving traffic congestion and promoting urban renewal, this project will involve construction of a 10-km urban railway (mainly elevated) from Zongguan to Huangpu Road. This is the first phase of construction of the total 30-km stretch between Gutianyi Road and Fujiapo.

This project will make effective use of the area left vacant by the former Jingguang Railway. Urban railways are relatively new in China, and, similar to the Chongqing monorail project, this project is significant because it is the first urban railway to be built outside of coastal cities. This project falls into the three priority areas set out in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*: Environment, food and poverty, and a focus on inland regions to reduce regional disparities.

The proceeds of the loan will be used to procure signal and communications equipment, power equipment, administration and emergency equipment, rail cars, railyard equipment, etc.

The executing agency is Wuhan Municipal People's Government, No. 843 Jiefang Road, Wuhan, P.O. Code 430016, China, Tel: 86-27-85776120, Fax: 86-27-85776120.

Mongolia

March 26, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Ulaanbaatar 4th Thermal Power Plant Rehabilitation Project (II)	6,139	0.75*	0.75*	40/10	40/10	General Untied	Bilateral Tied

* Special environmental project

Ulaanbaatar 4th Thermal Power Plant Rehabilitation Project (II)

(1) Background and Necessity of the Project

In September 2000, the government of Mongolia unveiled its development strategy, which aims to attain 6% annual economic growth by 2004. The strategy focuses on reforms in the energy sector, which provides the foundation of the economy. Thus, the government is making efforts to 1) improve efficiency through energy saving; 2) conserve the environment; and 3) ensure stable operation of power plants. However, the facilities in the energy sector, which were built by the former Soviet Union, are facing serious problems, including declining efficiency of power generation, increasing stresses on the environment, and frequent breakdowns. These problems have to be addressed urgently. The fourth thermal power plant in Ulaanbaatar is the country's largest, supplying about 70% of the power and 60% of the heat for the capital. However, its facilities, designed and installed by the former Soviet Union, are outdated, equipped with low-efficiency boilers that consume too much coal, emit large amounts of pollutants, and are prone to breakdown. As a result, power failures and drops in the temperature of heating hot water supplied from the plant are common occurrences. In particular, this has caused serious problems for the population of the capital and for industrial production, especially during the winter when demand for power and heat peaks with temperatures dropping as low as minus 40 degrees Celsius.

To address these problems, the government of Japan extended grant aid in fiscal 1992 and 1994, and an ODA loan in fiscal 1995 for the first phase of this project, by which four out of the eight boilers were converted to a direct burning system and their automatic control system was modernized. However, the remaining four boilers have similar problems, with a lack of energy efficiency, pollution of the environment and insufficient safety. Failure to address these problems will lead to a fall in the utilization of the overall generating capacity and is likely to have an adverse impact on the facilities installed in the first phase. Therefore, necessary measures have to be taken urgently.

(2) Objective and Description of the Project

The objective of this project is to increase the reliability and energy efficiency of the existing facilities of the fourth thermal power plant in Ulaanbaatar, the country's largest thermal power plant, by installing an automatic control system and converting the four boilers to a direct burning system. It will thus contribute to industrial development and an improvement in the people's welfare in the capital. In addition, improved boiler efficiency is expected to reduce nitrous and sulfurous oxide emissions, thereby decreasing air pollution and global warming.

The proceeds of this loan will cover procurement of materials and equipment, installation work and consulting services, such as bidding assistance, construction supervision, and environmental measures for the four boilers in the second phase of this power project.

The executing agency is the Ministry of Infrastructure, Government Building-2, Ulaanbaatar 210646, Mongolia, Tel: 976-11-324379, Fax: 976-11-310612.

The Philippines

April 7, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
LRT Line 1 Capacity Expansion Project (Phase II)	22,262	1.0*	0.75**	40/10	40/10	Tied	Bilateral Tied
KAMANAVA Area Flood Control and Drainage System Improvement Project	8,929	1.0*	0.75**	40/10	40/10	Tied	Bilateral Tied
Mindanao Container Terminal Project	8,266	1.0*	0.75**	40/10	40/10	Tied	Bilateral Tied

August 31, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
New Iloilo Airport Development Project	14,724	0.95*	0.75**	40/10	40/10	Tied	Bilateral Tied
Subic Bay Port Development Project	16,450	0.95*	0.75**	40/10	40/10	Tied	Bilateral Tied
Second Magsaysay Bridge and Butuan City Bypass Road Construction Project	3,549	0.95*	0.75**	40/10	40/10	Tied	Bilateral Tied
Total (6 Commitments)	74,180						

*Special Yen (ODA) Loan **Special environmental project

1. LRT Line 1 Capacity Expansion Project (Phase II)

Traffic congestion in Metro Manila has worsened as a result of the increase in the number of automobiles and in automobile use that accompanied the economic development of the 1990s. This congestion has resulted in economic losses and aggravated air pollution. This created the need for an environment-friendly mass transit system that offers reliable service.

Plans are being developed to build a six-line elevated rail network in Metro Manila. The Light Rail Transit (LRT) Line 1, which was completed in 1985, was well accepted and liked by commuters for its safety and reliable service. However, as the city's chronic traffic congestion worsened, Line 1 quickly reached its initial carrying capacity limit. Its carrying capacity was targeted for expansion using funds from JBIC (LRT Line 1 Capacity Expansion Project (Phase I)). That project was completed in December 1998.

To improve the railway network in Metro Manila, work is underway on Mass Rail Transit (MRT) Line 2, which runs east-west through Metro Manila, and on MRT Line 3, which runs in a semicircle around that region. MRT Line 2 is slated for completion in 2002, and a part of MRT Line 3 was opened for operation in December 1999. Once these lines are completed, central Metro Manila will have its first-ever railway network. With the completion of these lines, however, the city can expect to see an increase in the number of passengers transferring from Lines 2 and 3 to Line 1. This has raised concerns over the sufficiency of the current capacity of Line 1 and this created the need to further increase that line's capacity.

To improve the capacity of LRT Line 1, this project involves procurement of 12 four-car trams (48 cars) and improvements to the signal system, including the Automatic Train Control (ATC) System, by shortening the current 2.5-minute minimum interval between trains to only two minutes. It will also involve widening of platforms, an increase in the number of station entrances and exits, and installation of signaling and air-conditioning in the 64 existing cars. This would enable LRT Line 1 to handle the maximum demand of 40,000 passengers per hour. In addition to increasing the facility capacity, these measures are designed to improve the urban transportation system in Metro Manila, which is currently heavily dependent on road transportation, and to help alleviate traffic congestion and improve the environment.

This project is consistent with the objectives established for the Philippines in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*. These objectives include, 1) strengthening the economic structure and overcoming factors which restrict sustainable growth, 2) alleviating poverty and reducing regional disparities, 3) promoting environmental conservation and disaster mitigation, and 4) developming human resources and institutional building.

The proceeds of the loan will be used for the purchase of such items as railway cars and signal systems, including related civil works and consulting services (detailed designs, assistance with bidding, construction supervision, environmental monitoring, etc.).

The executing agency is the Light Rail Transit Authority (LRTA), Administration Building, LRTA Compound, Aurora Boulevard, Pasay City, Metro Manila, the Philippines, Tel: 63-2-832-3141, Fax: 63-2-831-6449.

2. KAMANAVA Area Flood Control and Drainage System Improvement Project

Because of the geographical location and climatic conditions of the Philippines, about 20 of the 30 typhoons generated every year in the Pacific Ocean approach the country's area of responsibility. About half of these eventually hit the country. Flood damage is a frequent result of the torrential rains that are brought by these typhoons. Because Metro Manila, including the area targeted by this project, lies on low ground, it has been plagued with serious flooding from overflowing rivers and inadequate drainage. The process of urbanization and the increasing concentration of the population have only increased the threat of flood damage to the capital region. The river flows have been hampered by the increased amounts of waste and dirty water being dumped into the river and the accumulation of sludge on the river bottom.

The KAMANAVA area (Kaloocan, Malabon, Nabotas, Valenzuela) targeted by this project is among the capital region's lowest-lying areas at only 0 to 1.5m above sea level. The area is regularly subject to flood damage due to river overflows and inadequate drainage resulting from rainfall and surges. This project involves repair of river walls and improvements to pumping stations, floodgates, and drainage channels. In the process, it will improve the living conditions of the affected residents as well as the natural environment, and will contribute to the region's economic development.

This project reflects the importance of the flood control sector in the Philippines and is ranked among the important support sectors since, as a disaster mitigation project (which includes flood control measures), it is also an environmental project. It is also consistent with the objectives established for the Philippines in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*. These objectives include, 1) strengthening the economic structure and overcoming factors which restrict sustainable growth, 2) alleviating poverty and mitigation of regional disparities, 3) promoting environmental conservation and disaster mitigation, and 4) developing human resources and institutional building.

The proceeds of the loan will be used for the civil works and equipment needed to implement this flood control project, and for consulting services (foundation surveys, detailed designs, assistance with bidding and contracts, environmental monitoring, etc.). The government of the Philippines would be responsible for carrying out the appropriate procedures for purchase of land and for relocation of residents as may be necessary in implementing this project. The government plans to follow-up on the living environment of the residents that are relocated and ensure that they can make a living in their new locations.

The executing agency is the Department of Public Works and Highways (DPWH), Bonifaco Drive, Port Area, Manila, the Philippines, Tel: 63-2-527-4807, Fax: 63-2-527-5635.

3. Mindanao Container Terminal Project

As an archipelago comprising more than 7,000 islands, the Philippines relies heavily on maritime transportation in its economic and social activities.

Improvements of port facilities to facilitate smooth maritime transport are therefore essential. Specifically, the development of main ports that can serve as central nodes in the distribution network are essential for promoting regional development, an important matter for the nation's economy.

The island of Mindanao targeted by this project enjoys bountiful natural resources, a climate suitable for agriculture and a vast potential for economic development. However, it is developing more slowly than such islands as Luzon and Cebu because the levels of its economic and infrastructure development are lower than the national average. The delayed improvement of port facilities in the island, in spite of drastic increases in container and non-container cargo volumes, is creating a bottleneck in the island's economic development.

Because the existing port lacks container handling facilities, this project involves construction of a central port in northern Mindanao and a container terminal equipped with modern machinery, including gantry cranes*, that will enable it to meet the expected increases in demand for container cargo handling. These measures are intended to improve the infrastructure in northern Mindanao and promote the development of the regional economy.

This project is consistent with the objectives established for the Philippines in JBIC's *Medium-Term Strategy for Overseas Economic Cooperation Operations*. These objectives include, 1) strengthening the economic structure and overcoming factors which restrict sustainable growth, 2) alleviating poverty and reducing regional disparities, 3) promoting environmental conservation and disaster mitigation, and 4) developing human resources and institutional building.

The proceeds of the loan will be used for the procurement of equipment such as cargo handling machinery, civil works and consulting services (detailed designs, assistance with bidding and contracts, construction supervision, environmental monitoring, organizational support for the executing agency, etc.).

The executing agency is the PHIVIDEC Industrial Authority (PIA), PHIVIDEC Industrial Estate, Tagoloan, Misamis Oriental, the Philippines, Tel: 63-088-5670-135, Fax: 63-088-5670-194.

* Cranes used to transfer containers from vessel to dock.

4. New Iloilo Airport Development Project

The demand for air transportation in the Philippines has shown a steady increase, although it still accounts for a relatively small percentage of total transportation in the country. Air transportation is considered a prerequisite for the country's economic development, as it provides speed, regular operations and comfort. As the economy expands and incomes rise, air transportation is expected to play an increasing role in passenger and cargo traffic in a country with more than 7,000 islands. The government of the Philippines is planning to build at least one airport that conforms to international standards (International Civil Aviation Organization, ICAO) in each of the 13 regions, beginning with airports that have higher volume of domestic passengers.

The existing Iloilo Airport located on Panay Island in the Bisayas region is the main airport (domestic flights) for the central area of the Philippines. It is the fourth largest airport in the Philippines in passenger volume (annual volume 690,000 in 1997), and the average from 1990 to 1997 shows that the airport accounted for 5.0% of domestic passenger traffic and 3.3% of cargo traffic. Moreover, the annual growth rate of passenger and cargo volume from 1991 to 1998 was 8.3% and 4.7%, respectively, at Iloilo Airport, and similar growth is expected in the future.

This project will include the construction of a new airport with a runway length of 2,500m on the outskirts of Iloilo City in Iloilo Province on Panay Island. This airport is expected to meet the increases in demand for passenger and cargo traffic, and improve air safety. These project objectives will promote sustainable economic and social development in Panay Island and the surrounding areas.

The proceeds of the loan will be used for public works needed for the runway and apron, the procurement of such equipment as air safety system, and consulting services (detailed designs, assistance with bidding, environmental monitoring, etc.).

The executing agency is the Department of Transportation and Communications (DOTC), Columbia Tower, Ortigas Ave., Mandaluyong City, the Philippines, Tel: 63-2-726-7106, Fax: 63-2-726-7104.

5. Subic Bay Port Development Project

As an archipelago consisting of more than 7,000 islands, the Philippines relies heavily on maritime transportation in its economy and society. Improvements of port facilities are therefore essential to expedite smooth maritime distribution. However, port facilities improvements have not met with increases in cargo volume generated from economic development and internationalization of the Philippines. The increase in handling cargo load for Manila Port is especially pronounced due to economic activities concentrating in the Metro Manila area. This creates a distribution bottleneck. It is essential that congestion at major ports, including Manila Port, be corrected and expansion of container cargo handling facilities be addressed to sustain economic growth.

This project involves construction of a new container terminal and rehabilitation of existing port facilities in the Subic Bay Freeport Zone to create higher cargo handling capacity for Subic Port in order to facilitate and promote distribution in the Central Luzon region, which includes the Subic area. The object of these measures is to promote regional economic development and alleviate congestion in Manila Port.

The proceeds of the loan will be used for the civil works and equipment needed to construct the container berth, and consulting services (foundation surveys, detailed designs, assistance with bidding and contracts, environmental monitoring, etc.).

The executing agency is the Subic Bay Metropolitan Authority (SBMA), Bldg. 229, Waterfront Road, Subic Bay Freeport Zone, the Philippines, Tel: 63-47-252-4895, Fax: 63-47-252-3104.

6. Second Magsaysay Bridge and Butuan City Bypass Road Construction Project

The road network is the primary transportation system in the Philippines, accounting for approximately 90% of passenger traffic and around 50% of cargo traffic. Investment in major road networks was made prior to the early 1980s, and included main and secondary highways. The main objective was geared to expansion of the roads and not to their functional or qualitative aspects. As a result, there are many unpaved highways that are inadequate as major arterial roadways. Furthermore, damage from natural disasters and insufficient alternative roads in case of emergencies have impaired efficient road use. As a result, immediate attention to the development of safe and efficient major road networks is essential to promote the domestic movement of people and commodities, and bolster regional economic areas.

The economic level of Mindanao Island, where the project is located, is below that of other regions in the Philippines. Development must be geared to reducing poverty. Unfortunately, the percentage of paved roads is lower than that of other regions; the national rate for paved road is 57% and for Mindanao Island is 48%. Mindanao Island still faces many problems relating to road improvements.

This project, situated in the northeastern part of Mindanao Island, involves construction of a new bridge and a bypass road for the main highway in Butuan City. The highway connects Butuan, Cagayan de Oro and Iligan, and the bridge will be built where the highway crosses the Agusan River. These public works will alleviate traffic congestion in Butan City and adjacent areas, facilitate transportation and traffic between the major cities in the northeastern part of Mindanao Island, and help promote sustainable economic and social development in the northeastern part of Mindanao Island.

The proceeds of the loan will be used for public works needed to construct the bridge and bypass road, and consulting services (foundation surveys, detailed designs, assistance in bidding and contracts, environmental monitoring, etc.).

The executing agency is the Department of Public Works and Highways (DPWH), Bonifacio Drive, Port Area, Manila, the Philippines, Tel: 63-2-527-4111, Fax: 63-2-527-5635.

Thailand

September 22, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Regional Road Improvement Project (III)	19,544	2.2	0.75*	25/7	40/10	General Untied	Bilateral Tied
National Metrology System Development Project (II)	2,202	0.75***	0.75***	40/10	40/10	Bilateral Tied	Bilateral Tied
Seventh Bangkok Water Supply Improvement Project (II)	9,601	1.7**	0.75*	25/7	40/10	General Untied	Bilateral Tied
Second Bangkok International Airport Development Project (IV)	18,506	2.2	0.75*	25/7	40/10	General Untied	General Untied
MRTA Initial System Project (Blue line) (V)	45,818	0.75*	—	40/10	—	General Untied	—
Total (5 Commitments)	95,671						

*Special environmental project **Standard environmental project ***Special human resource development project

1. Regional Road Improvement Project (III)

There are five transport modes in Thailand—road, railway, canal, inland waterway and air. In 1998, roads accounted for 91% of total cargo transport, indicating the significant position of roads in the overall domestic transport system. Traffic volume is rising rapidly in rural as well as urban areas. Inadequate road capacity has created a bottleneck for cargo transport, at the same time creating regional disparities.

This project involves expansion of the width of seven routes of the trunk road, which stretches a total of 343km and links up with the north-south trunk road as well as the east-west corridor, from two lanes to four lanes, thereby keeping up with the growth of traffic. It will also provide an incentive for economic development in the areas adjacent to the roads/neighboring regions through improved road links between regions, and between cities. This should reduce regional and income disparities resulting from fast economic growth, and promote linkage over extended areas.

The proceeds of the loan will be used for civil works and consulting services (including detailed review of the design and work supervision).

Road planning experts have been sent from the Japan International Cooperation Agency (JICA) to the executing agency of this project to strengthen project implementation.

The executing agency is Department of Highways, Ministry of Transport and Communications, Si-Ayutthaya Road, Ratchathevi, Bangkok 10400, Thailand, Tel: 662-246-1120, Fax: 662-245-6905.

2. National Metrology System Development Project (II)

The Thai industrial sector has spurred rapid economic growth of the country since the 1980s, especially through the expansion of its exports, but in recent years price competition with Asian neighbors has been intensifying. The Thai government considers that restoring its export sales will require the development of high-quality products and parts that meet internationally accepted measurement standards. Until now, however, there have been no consistent establishment, maintenance, and supply of a national metrology system, and as a result the level of national measurement standards has remained low relative to the developed nations. Consequently, there has been no measurement standards, which is credible enough to improve the quality of industrial products.

For this reason, the Thai government has promoted the development of its national metrology system by passing the National Metrological System Development Act in 1997 and establishing the National Institute of Metrology, Thailand (NIMT) in 1998. In May 1999, the cabinet approved a Master Plan on Development of the National Metrology System, in which the development plan for metrology standards in Thailand was confirmed and the staffing plan for NIMT approved.

This project supports the development of the national metrology system provided by NIMT and aims to establish accurate measurement standards within Thailand while maintaining international equivalence. This project will make it possible for domestic firms and calibration institutions to align their measurement standards with more accurate and internationally-approved standards through NIMT at low cost and in a short period of time. Consequently, the reliability of Thai products will increase and its exports are expected to expand.

The proceeds of the loan will be used for construction of the new building whose design work was supported by the 24th loan commitment, the deployment of Japanese experts for project execution, and the procurement of equipment and consulting services (including coordination of procurement and civil works).

JICA experts have already been placed at the executing agency of this project, as part of efforts to transfer technology in measurement standards.

The executing agency is the National Institute of Metrology, Thailand (NIMT), under the Ministry of Science, Technology and Environment (MOSTE) 75/7 Rama VI, Thungphyathai Rajthevi, Bangkok 10400, Thailand, Tel: 662-248-2181, Fax: 662-248-4494.

3. Seventh Bangkok Water Supply Improvement Project (II)

The population of the Bangkok metropolitan area is expected to increase form 7.56 million in 1998 to 8.64 million in 2003. Meeting the increasing demand for water that comes with the population increase is emerging as a serious challenge. What is required is the construction of a well-balanced water supply system, including water purification, transportation and distribution that covers the whole metropolitan area.

The first phase of this project has involved expansion of the existing Bangkhen and Mahasawat water treatment plants to strengthen the clean water supply capacities mainly on the western side of the Chao Phraya River. In a bid to help respond to the enhanced water treatment capacities by improving, expanding and making effective the water distribution network, the current phase of the project involves rehabilitation of water transportation tunnels and installation of main water pipes. The project is designed to contribute to the construction of a well-balanced water supply system in the Bangkok metropolitan area, thus improving public hygiene and the living environment.

The proceeds of the loan will be used for the procurement of goods and services, and for consulting services (including detailed designs and construction supervision).

The executing agency is the Metropolitan Waterworks Authority (MWA), 400 Prachachuen Road, Tung Song Hong, Laksi district, Bangkok 10210, Thailand, Tel: 662-504-0213, Fax: 662-504-0204.

4. Second Bangkok International Airport Development Project (IV)

Reflecting recent economic development in Thailand and the growth of the tourist industry, air travel demand in Bangkok has surged to an extent that the existing Don Muang International Airport will likely be unable to meet this demand. Therefore, the construction of a new airport is an urgent issue in order to meet rising demand for air travel and facilitate smooth transportation.

This project involves construction of the Second Bangkok International Airport with passenger terminal capacity of 30 million passengers per year and two 3,700-m runways. The airport will be located about 30km east of Bangkok in Nong Ngu Hao.

This is the fourth loan, following the 21st, 22nd and 24th ODA loans provided in fiscal 1996, 1997 and 1999, respectively. The proceeds of the loan will be used for airfield pavement, constructing the passenger terminal complex, and consulting services (project administration and construction supervision).

JICA experts on airport planning have been dispatched for this project, and they are expected to strengthen the project implementation framework.

The executing agency is the New Bangkok International Airport Company Limited, 99 Bangna-Trad Road, KM. 15, Mu 10, Tambon Rachathewa, Amphoe Bang Phli, Samut Prakan Province 10540, Thailand, Tel: 662-927-0000.

5. MRTA Initial System Project (Blue Line) (V)

The traffic congestion in Bangkok caused by rapid motorization arising from Thailand's swift economic development has become so severe that rush-hour traffic crawls at an average 8km/h. This has had an adverse effect on the

country's economy, with the yearly loss estimated at about 3% of GDP.

This project involves construction of a subway system with a total length of 20km in central Bangkok, from Hua Lamphong Central Station to Bang Su Railway Station. The project aims to provide an alternative means of transportation for Bangkok, which relies heavily on roads, and alleviate the severe traffic congestion and decrease air pollution in the Bangkok area.
This is the fifth loan, following the 21st, 22nd, 23rd and 24th ODA loans provided in fiscal 1996, 1997,1998 and 1999, respectively[1]. The proceeds of the loan will be used for civil works needed for the construction of tunnels, stations and train car bases, and for laying railroad tracks. The JICA experts on the construction and operation of subway systems have been dispatched to the project executing agency, MRTA, and they are expected to strengthen the project implementation framework.

This project is considered an environment project, as it will contribute to alleviating traffic congestion and address the global warming problem.

The executing agency is the Metropolitan Rapid Transit Authority (MRTA), 175 Rama IX Road, Huai Kwang, Bangkok 10320, Thailand, Tel: 662-273-0860, Fax: 662-273-0891.

Note: 1) An emergency loan (23rd ODA Loan for Emergency) was provided for this project in July 1998 as a "Local Financing Program for OECF Assisted On-Going Projects." This loan will be the sixth loan for this project if the emergency loan is included.

Viet Nam

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Cuu Long (Can Tho) Bridge Construction Project	24,847	0.95*	0.95*	40/10	40/10	Tied	General Untied
Phu My-Ho Chi Minh City 500kV Transmission Line Project	13,127	1.80	0.75**	30/10	40/10	General Untied	Bilateral Tied
Dai Ninh Hydropower Project (II)	10,000	0.75**	—	40/10	—	Bilateral Tied	—
Omon Thermal Power Plant and Mekong Delta Transmission Network Project (I)	5,900	1.80	0.75**	30/10	40/10	General Untied	Bilateral Tied
Phan Ri-Phan Thiet Irrigation Project (E/S)	437	—	0.75**	—	40/10	—	Bilateral Tied
Ho Chi Minh City Water Environment Improvement Project (I)	8,200	1.30*** 0.75**	0.75**	30/10 40/10	40/10	General Untied Bilateral Tied	Bilateral Tied
National Highway No.1 Bypass Road Construction Project	8,393	1.80	0.75**	30/10	40/10	General Untied	Bilateral Tied
Total (7 Commitments)	70,904						

*Special Yen (ODA) Loan **Special environmental project
***Standard environmental project (Interest rate for special environmental project was applied to the sewerage facility portion of the Ho Chi Minh City Water Environment Project (I))

1. Cuu Long (Can Tho) Bridge Construction Project

Viet Nam is a long, narrow country that extends 1,650km from north to south, and 600km from east to west at its widest point. Crop types and productivity differ in the north and south due to differences in natural environment and vegetation. Underground resources include a wealth of good coal, bauxite and iron ore in the north and extensive reserves of oil in the south. In addition to these kinds of natural differences, the 30-year history of the north/south divide before the country's unification in 1976 has produced significant differences in economic development between the north, centered around Hanoi, and the south, centered around Ho Chi Minh City.

Improving the north-south distribution system is important for promoting complementary systems in both regions, eliminating income differences between the north and south by creating an integrated market between them, and promoting overall growth of the country's economy. It is extremely important that improvements are made to the infrastructure of the transportation sector to help improve distribution between the north and south and along branch routes. National Highway No. 1, which runs vertically through Viet Nam, is a trunk road that winds a total length of about 2,300km from its northernmost point at the Chinese border to its southernmost point in Nam Can. The Vietnamese government has placed top priority on improving National Highway No. 1 in its efforts to upgrade roadways by 2010.

Can Tho City (population: 1.81 million) is located 167km southwest of Ho Chi Minh City, and as an agricultural center for crops such as rice, is the most important city in the Mekong Delta region. The absence of a bridge across the Hau River, a tributary of the Mekong River, however, makes it necessary to cross from Can Tho Province to Vinh Long Province by ferry, thus creating a bottleneck along National Highway No. 1.

This project aims to meet transportation demand for the social and economic development of the Mekong Delta region through construction of a bridge (the Cuu Lon (Can Tho) Bridge) across the Hau River in the southern region of Ho Chi Minh City, the country's largest economic center, located on National Highway No. 1. Once complete, the Cuu Lon (Can Tho) Bridge is expected to be Viet Nam's longest cable-stayed bridge. The construction of roads from National Highway No. 1 (current) to the Cuu Lon (Can Tho) Bridge is planned as part of the construction of bypass roads for National Highway No. 1, funded by the annual project loan.

The proceeds of the loan will be used for civil engineering and for procuring materials needed for the construction of the main portions of the bridge.

The executing agency is the Ministry of Transport, 80 Tran Hung Dao, Ha Noi, Viet Nam, Tel: 844-8254012, Fax: 84-8267291.

2. Phu My-Ho Chi Minh City 500kV Transmission Line Project

Electricity demand in Viet Nam has risen dramatically with the country's recent economic development. From 1990 to 1997, total electricity consumption increased by an average of 20% annually. Electricity of Viet Nam, a public corporation, taking into account the effects of the recent Asian economic crisis, expects electricity demand to continue to rise at an average annual rate of 16% even if the GDP growth rate increases at an average of only 4-7% annually. In long and narrow Viet Nam, excess electricity in the northern and southern regions is being sold to other regions, but because of the large losses involved in transmitting electricity over long distances, there are limits to how much can be transmitted. It is thus necessary to build power plants in the northern and southern regions in accordance with the levels of electricity supply and demand in each region.

With the average annual growth rate through 2010 in the southern region centered around Ho Chi Minh City expected to be 12.4%, the Vietnamese government is moving ahead with plans to construct several large-scale thermal power plants in Phu My near the Ti Bai River, 45km southwest of Ho Chi Minh City, and plans in the future to make this a power generating base with a capacity of more than 3,000MW. Because it is expected to be difficult to use existing transformer substations to transmit the volumes of electricity that would be made possible by the power generating capacity of the Phu My power generating base, obstacles to the stable supply of electricity are also expected to arise.

This project aims to provide a stable supply of electricity from Phu My, the largest power generating base in southern Viet Nam, to its largest urban center, Ho Chi Minh City, by building 500kV power transmission lines and related transformer substations from the Phu My power generating base through the Nha Be transformer substation to the Phu Lam transformer substation in the suburbs of Ho Chi Minh City.

The proceeds of the loan will be used for civil engineering works for constructing the power transmission lines and related transformer substations, and for procuring materials and consulting services (construction supervision, environmental policies, etc.).

The executing agency is Electricity of Viet Nam, 18 Tran Nguyen Han Street, Hanoi, Viet Nam, Tel/Fax: 844-8253553.

3. Dai Ninh Hydropower Project (II)

The average annual growth rate through 2010 in the southern region centered around Ho Chi Minh City is expected to be 12.4%. In addition to utilizing thermal power derived from seafloor gases, there are plans for the early construction of a large-scale hydroelectric power station for meeting middle and peak demand by effectively using the abundant water resources of the southern region's Dong Nai river system.

This project involves construction of hydroelectric power plants and related transmission equipment with an output of 300MW (150MW × 2 locations) to locations throughout Lam Dong Province and Binh Thuan Province in southern Viet Nam (about 260km northeast of Ho Chi Minh City). An initial loan was issued in March 1999 (¥4 billion) to cover part of the project costs. This loan project is expected to provide a stable supply of electricity to southern Viet Nam, where the supply of electricity is tight, and to help develop agriculture in the region by making it possible for water discharged through the generation of electricity to be used in irrigation projects in arid regions in the southeast [see information on the Phan Ri-Phan Thiet Irrigation Project (E/S)].

The proceeds of this second loan will be used for civil engineering works for constructing the power plant and power transmission equipment, and for procuring materials and other resources.

The executing agency is Electricity of Viet Nam, 18 Tran Nguyen Han Street, Hanoi, Viet Nam, Tel/Fax: 844-8253553.

4. Omon Thermal Power Plant and Mekong Delta Transmission Network Project (I)

The average annual growth rate through 2010 in the southern region centered around Ho Chi Minh City is expected to be 12.4%. Although 60.5% (16 million people) of the southern Vietnamese population is concentrated in the Mekong Delta region targeted for the implementation of this project, the rate of electricity service subscription is only 52.8%, versus an average of 70.8% nationwide, due to the lack of power plants and power transmission equipment.

This project aims to strengthen the electricity supply system in southern Viet Nam, especially the Mekong Delta region, to improve electricity supply conditions, and to help improve the lifestyles of local residents. It will accomplish this through construcion of a thermal power plant with a maximum output of 300MW and installation of the equipment needed to transmit power throughout the region at a location about 18km upstream along the Mekong River from Can Tho City (167km southwest of Ho Chi Minh City), the largest city in the Mekong Delta region in southern Viet Nam. This electricity is also to be used for agricultural purposes and for processing drainage from agricultural lands inundated by floods.

The proceeds of this loan will be used for civil engineering works for constructing the power plant and power transmission equipment, and for procuring materials and consulting services (construction supervision, environmental policies, etc.).

The executing agency is Electricity of Viet Nam, 18 Tran Nguyen Han Street, Hanoi, Viet Nam, Tel/Fax: 844-8253553.

5. Phan Ri-Phan Thiet Irrigation Project (E/S)

The Dong Nai River region in central-southern Viet Nam (north of Ho Chi Minh City) is leading economic growth by facilitating industrial and rural development in the areas around Ho Chi Minh City. In recent years, however, the economic gap between the urban areas surrounding Ho Chi Minh City and the rural areas of the Dong Nai River region has widened, making it necessary to examine ways to raise the living standards of farmers through the development of rural areas. But the Phan Ri and Phan Thiet region of the Dong Nai river system targeted by this project has the lowest rainfall in Viet Nam, and has limited agricultural seasons and areas.

This project involves construction of irrigation and drainage systems covering 10,700ha (of which 9,500ha is newly developed) in the Phan Ri-Phan Thiet region using recycled water discharged into the Luy River from the Dai Ninh Hydropower Plant (targeted by a fiscal 1998 loan, scheduled for completion in 2007) planned for construction along the Dong Nai river system in Bac Binh of Binh Thuan Province and in central-southern Viet Nam. Specifically, it involves constructing dams, improving irrigation and drainage channels, moving and relocating residents, establishing agricultural cooperatives to promote the effective use of irrigation water, and implementing services for spreading agriculture.

This loan is targeted at engineering services needed before construction can begin. Engineering services should be sought to review feasibility studies, provide support for the creation of an action plan for relocating residents, devise detailed designs of the irrigation system, prepare documents for contract bidding, compile manuals for training service providers for spreading of agriculture, build a credit system* [compile manuals, select implementation body (NGOs, etc.)], create a demonstration plot, develop guidelines for establishing an agricultural cooperative, create a training program for the staff of the implementation body, create manuals on the maintenance and management of irrigation facilities and on water management, and develop an environmental monitoring plan.

The proceeds of the loan will be used for procuring engineering services to provide support for planning by the Vietnamese government in such areas as detailed design, bidding document preparation, and land acquisition and resident relocation plans.

The executing agency is the Ministry of Agriculture & Rural Development, MARD, 2 Ngoc Ha Hanoi, Viet Nam, Tel: 844-8437520, Fax: 84-8454319.

*The introduction of a small-scale financing system for supporting new start-ups in the new 9,500ha. of agricultural land created by this project.

6. Ho Chi Minh City Water Environment Improvement Project (I)

Ho Chi Minh City, Viet Nam's largest city (population about 5.1 million), is developing into the nation's industrial, commercial, and financial center. The city is thus expanding, with a rapid concentration and influx of people. The city is located in the wetlands of the Saigon River region, and the Saigon, Dong Nai, and Nha Be rivers flow through it. It thus has a complex system of canals and drainage channels that are effected by the tide level. Because of its low elevation (only 2-3m above sea level) and its high rainfall, flood disasters caused by rainfall and changing tide levels are not uncommon.

The city's drainage facilities were installed under the French colonial regime starting in the 1870s and were later expanded with assistance from the U.S. However, their capacity is severely deficient because the facilities were designed to serve only a population of 1.5 million and also because they are old and in disrepair. The city's sewerage facilities still lack a water treatment plant, so the contaminated water collected is discharged untreated into rivers and drainage channels. Untreated sewage builds up in the areas around the rivers into which it is discharged, creating an awful stench. Water quality in rivers and drainage channels is extremely bad, and is not only a concern in terms of its effects on people's health, but especially because it results in serious damage when houses and roads become flooded during the rainy season. Improvements to sewerage and drainage systems are thus urgently needed.

This project targets the central downtown areas of Ho Chi Minh City, and aims to improve the living environment for local residents, including urban environmental and sanitation factors, by strengthening drainage capabilities, preventing or decreasing frequent flooding, as well as by collecting sewage, constructing processing facilities, and improving the water quality of rivers in the city.

The proceeds of this loan will be used for civil engineering works and for procuring materials and consulting services (construction supervision, environmental policies, etc.).

The executing agency is the People's Committee of Ho Chi Minh City, 86 Le Thanh Ton, District 1, Ho Chi Minh City, Viet Nam, Tel/Fax: 848-9320517.

7. National Highway No. 1 Bypass Road Construction Project

Viet Nam is a long narrow country that extends 1,650km north to south, and 600km east to west at its widest point. Crop types and productivity differ in the north and south due to differences in natural environment and vegetation. Underground resources include a wealth of good coal, bauxite, and iron ore in the north and extensive stores of oil in the south. In addition to these kinds of natural differences, the 30-year history of the divided rule of north and south before the country's unification in 1976 has produced significant differences in economic development between the north, centered around Hanoi, and the south, centered around Ho Chi Minh City.

Improving the north-south distribution system is important for promoting complementary systems in both regions, eliminating income differences between the north and south by creating an integrated market between them, and promoting overall growth in the country's economy. It is extremely important that improvements be made to the infrastructure of the transportation sector to help improve distribution between the north and south and along branch routes. National Highway No. 1, which runs vertically through Viet Nam, is a trunk road that extends about 2,300km from its northernmost point at the Chinese border to its southernmost point in Nam Can. The Vietnamese government has placed top priority on improving National Highway No. 1 in its efforts to upgrade roadways by 2010.

Can Tho City (population: 1.81 million) is located 167km southwest of Ho Chi Minh City, and as an agricultural center for crops such as rice, is the most important city in the Mekong Delta region. The absence of a bridge across the Hau River, a tributary of the Mekong River, however, makes it necessary to cross from Can Tho Province to Vinh Long Province by ferry, thus creating a bottleneck along National Highway No. 1.

This project aims to build a bypass road linked to the Cuu Lon (Can Tho) Bridge across the Hau River, whose construction is planned as a Special Yen (ODA) Loan Project, in the southern region of Ho Chi Minh City, the country's largest economic center, located on National Highway No. 1. The

completion of this road and the Cuu Lon (Can Tho) Bridge are expected to meet transportation demand for the social and economic development of the Mekong Delta region.

The proceeds of the loan will be used for civil engineering works for the construction of the National Highway No. 1 bypass road, and for procuring materials and consulting services (construction supervision, environmental policies, etc.).

The executing agency is the Ministry of Transport, 80 Tran Hung Dao, Ha Noi, Viet Nam, Tel: 844-8254012, Fax: 84-8267291.

South Asia

Bangladesh

March 29, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Greater Faridpur Rural Infrastructure Development Project	4,055	1.0	0.75*	30/10	40/10	General Untied	General Untied
Rural Electrification Project (Phase V-B)	1,460	1.0	—	30/10	—	General Untied	—
Rupsa Construction Project	8,300	1.0	0.75*	30/10	40/10	General Untied	General Untied
Total (3 Commitments)	13,815						

*Special environmental project

1. Greater Faridpur Rural Infrastructure Development Project

(1) Background and Necessity of the Project

In Bangladesh, about 80% of the population lives in rural areas, and agriculture is the largest industry, contributing 30% of GDP. However, lagging development in rural infrastructure, including main rural roads, village markets and rural administrative facilities, poses an obstacle to efficient distribution and sale of agricultural products, procurement of fertilizer, seeds and agricultural machinery, and provision of social services ranging from health care to education. As a result, it is estimated that half of the rural population is still living in poverty, defined as nutritional intake per person of less than 2,122 calories per day. There is a substantial need for developing rural infrastructure on a broader scale.

(2) Objective and Description of the Project

The project involves construction of rural infrastructure, including rural roads, village markets and rural administrative facilities in Greater Faridpur (Faridpur, Rajbari, Madaripur, Gopalganj and Shariatpur), where the impoverished population accounts for a larger proportion than the national average and rural development is lagging behind. Further, to ensure effective use of these facilities, the project employs methods that encourage residents' participation in drawing up and administering the plan. It will also start road rehabilitation work and training programs for village officials in partnership with NGOs to help improve the income level of the poor. Through these efforts, the project aims to bolster access of local residents to economic and social services, update agricultural distribution, and help the poor and the women to take part in the development process, thus invigorating the local economy and contributing to poverty reduction.

The executing agency is the Local Government Engineering Department, Agargoan, Shere-e-Bangla, Nagar, Dhaka-1207, Bangladesh, Tel: 880-2-822257, Fax: 880-2-813144.

2. Rural Electrification Project (Phase V-B)

(1) Background and Necessity of the Project

The Rural Electrification Board (REB) of Bangladesh was founded in 1977 to push forward rural electrification. With a mandate to deliver and distribute electric power to rural areas, REB adopted a scheme under which power distribution was relegated to locally set-up rural electrification cooperatives. In this way, REB achieved efficient and effective electrification. Nonetheless, households with electricity still account for only 15% of the country's total households, and further electrification of rural areas, where 80% of the population resides, is an important task for bolstering the country's economy and reducing poverty.

Separately, power distribution in the urban areas is chronically burdened by the high rate of power losses due to outdated facilities and pilferage. There are also difficulties in tariff collection. In contrast, REB has successfully introduced a mechanism for appropriate incentives and penalties, has reduced the loss rate and has improved the rate of tariff collection. Therefore, the government of Bangladesh decided to shift part of the management of the distribution facilities from urban power utilities to REB, and this process is well underway. In this project, the facilities shifted to the management of REB will also be rehabilitated, which will contribute to the increased efficiency of the power sector.

(2) Objective and Description of the Project

The project is part of the final stage of the five-phase nationwide electrification program. In this phase, two newly created cooperatives in Khulna and Jhalakati will develop their power distribution networks to provide electricity to a total of 57,000 households.

The proceeds of the loan will be used for foreign currency expenditures in establishing and rehabilitating the distribution networks and constructing four transformer substations (33/11kV).

The executing agency is the Rural Electrification Board (REB), Joarshahara, Khilkhet, Dhaka-1229, Bangladesh, Tel: 880-2-896424, Fax: 880-2-896400.

3. Rupsa Construction Project

(1) Background and Necessity of the Project

One of the characteristics of the road sector in Bangladesh is that five major corridors are intersected by rivers, which hinder efficient operation of the road networks. To address this problem, the construction of bridges is underway at a measured pace.

Khulna City, the political and economic center of southwestern Bangladesh, is separated from Mongla Port, the country's second international port, located 40km to the south, by the Rupsa River. The river poses a significant obstacle to passenger and cargo traffic, creating a bottleneck for the region's economic development.

Therefore, building a bridge across the river is considered indispensable for ensuring efficient and safe transport for the residents of Khulna City and the surrounding areas.

(2) Objective and Description of the Project

The objective of this project is to construct a bridge over the Rupsa River flowing through Khulna City to develop an efficient and safe road transport network in the city and the southwestern part of the country. This will also contribute to the development of western Bangladesh through the use of Mongla Port and stimulate more vigorous inter-regional economic transactions between eastern and western Bangladesh. Additionally, connecting Khulna City and Mongla Port by road will make it possible to handle the increased cargo traffic which is expected to pass through this port in the future.

The executing agency is the Roads and Highways Department (RHD), Ministry of Communications, Sarak Bhaban, Ramna, Dhaka-1000, Bangladesh, Tel: 880-2-9562829, Fax: 880-2-9556268.

India

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Delhi Mass Rapid Transport System Project (II)	6,732	1.8	—	30/10	—	General Untied	—
Simhadri Thermal Power Station Project (II)	12,194	1.8	—	30/10	—	General Untied	—
Total (2 Commitments)	18,926						

1. Delhi Mass Rapid Transport System Project (II)

(1) Background and Necessity of the Project

As India's industrial structure has developed over the last few years, the population has tended to concentrate in large cities and private automobiles have proliferated rapidly, exacerbating traffic congestion in those cities. Congestion has worsened with every postponement of efforts to improve public transit systems. The rise in the number of private automobiles has caused serious environmental problems, especially exhaust emissions. Cars will inevitably increase in number in the future as well, creating an urgent need for study on ways to protect the environment.

Railways in Delhi, where this project will be implemented, have been prioritized in terms of long-distance transport, and this has resulted in insufficient development of an urban rail network and short rail lines linking the suburbs with the city center. Many residents are therefore forced to depend on buses and cars for their transportation. Meanwhile, city streets are constantly jammed as private automobiles grow more numerous. Because of this situation, there is a growing need to construct an environmentally friendly, efficient mass transit system that will reduce traffic congestion and offer rapid and reliable scheduled services.

(2) Objective and Description of the Project

This project involves the construction of 52km of track for a mass transit system that will extend a total of 198km, and that will consist of a subway, an elevated track and a surface railway in Delhi, India's capital. The aim of the project is to improve Delhi's urban environment by reducing traffic congestion and pollution. The project is expected to help reduce traffic congestion, exhaust emissions, and other types of urban pollution caused by motor vehicles, and to play a large role in improving Delhi's transit system. Incidentally, in February 1997 JBIC agreed to extend ¥14.76 billion for Phase I of the project. The loan announced today is for Phase II.

The executing agency is Delhi Metro Rail Corporation Limited (DMRC), 3rd floor, East Tower, NBCC Place, Pragati Vihar, Bhishma Pitahmah Marg, New Delhi 110003, India, Tel: 91-11-436-5202, Fax: 91-11-436-5370.

2. Simhadri Thermal Power Station Project (II)

(1) Background and Necessity of the Project

India's power plants cannot come close to satisfying the demand for electricity at peak periods, and the gap between supply and demand is growing year by year. In the southern state of Andhra Pradesh, electric power demand for agricultural purposes is high. (Agricultural demand for electricity there was about 40% of the total value of electric power sales during fiscal 1992-1995, whereas the national average is about 30%). Andhra Pradesh therefore does not have enough electricity for industrial purposes, and this is stifling the economic development of the state. The state's Electricity Board estimates that, even if all planned power plants are completed according to schedule, there will still be a shortfall of about 8% during peak periods after the Simhadri Thermal Power Station Project (II) is completed at the end of 2004.

The project involves the construction of a large thermal power station in the suburbs of the city of Vishakhapatnam, next to Andhra Pradesh's main industrial zone. The power station will burn coal from the state of Orissa (eastern India) and generate 1,000MW. The plant will supply electricity to Andhra Pradesh and is seen as a very important, indeed urgently needed, facility when demand for electricity is increasing rapidly in the state.

(2) Objective and Description of the Project

The project involves the construction of a coal-fired thermal electric power plant with an output of 1,000MW (two turbines × 500MW). The plant is presently under construction in the suburbs of Vishakhapatnam, in the state of Andhra Pradesh, southern India. The purpose of the project is to help cope with the rapidly growing demand for electricity in the state, and to create a stable supply of electricity. Incidentally, in February 1997 JBIC agreed to extend ¥19,817 million for Phase I of the project. The loan announced today is for Phase II, and will extend funds to be used to continue construction of the thermal power station.

The project is expected to boost the supply of electric power, which will lead to industrial revitalization, which in turn will lead to higher employment and improved living conditions for local residents through greater access to electricity in farming villages and wider use of home appliances.

The executing agency is National Thermal Power Corporation Limited (NTPC), NTPC Bhwan, Scope Complex 7, Institutional Area, Lodhi Road, New Delhi 110003, India, Tel: 91-11-436-0201, Fax: 91-11-436-1018.

Nepal

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Melamchi Water Supply Project	5,494	1.0	0.75*	30/10	40/10	General Untied	General Untied

*Special environmental project

1. Melamchi Water Supply Project

(1) Background and Necessity of the Project

In Nepal, the percentage of the population having access to water supply was 61% as of 1997. The situation varies considerably between the rural and urban area. In rural areas, access to drinking water has been increasing due in part to small-scale water supply facilities built by the support of aid agencies since 1970. By contrast, access to water supply has been consistently declining in the urban area because of a failure to address a significant increase in water demand associated with population inflows since the 1980s. The population growth rate in the urban areas of the Kathmandu Valley, where the capital is located, rose from 2% in the 1960s to 4% in the 1970s and to 5% in the 1980s. This concentration of population in Kathmandu still continues, creating a gap between demand and supply of water.

To close this gap, a source of water supply has to be secured. However, water resources in the valley have been almost exhaustively developed. In addition, except for upstream of a river in the northeastern edge of the valley, diverting water from the neighboring rivers is difficult technically and economically because the valley is situated at an altitude of 1,200m. Therefore, there is a need to divert water from this source.

(2) Objective and Description of the Project
The objective of the overall project is the construction of a water treatment plant, an intake, sluice, diversion tunnel, and volume distribution system and the improvement of the existing water distribution network necessary to take water from the Melamchi River in the northeast edge of the valley and divert it to Kathmandu City. The present loan covers the construction of the water treatment plant. Specifically, the water taken from the river will be diverted through a 26-km tunnel to the water treatment plant in the valley, where it will be treated and pumped to the city. The project is expected to not only improve the water supply situation and public hygiene in the Kathmandu Valley, but also bolster the country's tourism sector by developing a basic infrastructure. The Nepalese government plans to supply the minimum water required for all the citizens by the end of the Ninth Five-Year Economic Plan (July 2002). This project is being undertaken as part of this plan.

The executing agency is the Melamchi Water Supply Development Board (MWSDB) under the Ministry of Physical Planning and Works (MPPW), Birendra International Conference Center, Naya Baneshwor, Kathmandu, Nepal, Tel: 977-1-494530, Fax: 977-1-493959.

Sri Lanka

January 26, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Project for the Improvement of National Blood Transfusion Services	1,508	2.2	0.75*	30/10	40/10	General Untied	Bilateral Tied
Small and Micro Industries Leader and Entrepreneur Promotion Project (II) (SMILE (II))	4,838	2.2	—	30/10	—	General Untied	—

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Southern Highway Construction Project	18,770	2.2	0.75**	30/10	40/10	General Untied	Bilateral Tied
Greater Kandy Water Supply Project	5,151	0.95***	0.75**	40/10	40/10	Japan Tied	Bilateral Tied
Total (4 Commitments)	30,267						

*Standard environmental project **Special environmental project ***Special Yen (ODA) Loan

1. Project for the Improvement of National Blood Transfusion Services

(1) Background and Necessity of the Project
Since the country's independence in 1948, the government of Sri Lanka has consistently followed a policy, of prioritizing the social sector including the health services. The country boasts better basic health indices than other South Asian countries, with the rate of infant mortality at 16.5 individuals/thousand, and an average life expectancy of 72.9 years (both statistics from 1995). The health services are provided mainly by national hospitals that account for a 91% share of the nationwide health facilities, and their local health networks are functioning relatively well. The emergence of the graying society, however, which was brought about by declining birth and death rates, has led to a shift in typical diseases toward cardio and cerebral illnesses. The introduction of advanced medical treatment is expected to increase the demand for transfusion blood.

Under the jurisdiction of the Ministry of Health, the blood supply service has been run by the central and provincial and regional blood banks, setting the growth target at 10% per year since 1993. However, the wear and tear on the facilities, lack of necessary facilities for taking, examining and storing the blood, and the shortage of space for education and training have posed obstructions to meeting the demand for transfusion blood. To address these problems, an upgrading of facilities, equipment and institutional arrangements is urgently required.

(2) Objective and Description of the Project
The purpose of the project is to construct a central blood center, furnish equipment and materials to the central blood center, eight provincial blood banks and 48 regional blood banks, give training to personnel, and provide the consulting services for supervising the project implementation, including the environmental considerations, thus developing a basic blood supply system as a whole and contributing to the upgrading of the health service level in Sri Lanka. The task of training and education in particular, which aims at enhancing the management of transfusion blood, will be conducted in alliance with the World Health Organization (WHO) in line with international standards, and is expected to adopt infectious disease-control measures.

The executing agency is the National Blood Transfusion Services, Ministry of Health, Sri Lanka, Central Blood Bank, Colombo 8, Sri Lanka, Tel/Fax: 94-1-692317.

2. Small and Micro Industries Leader and Entrepreneur Promotion Project (II) (SMILE (II))

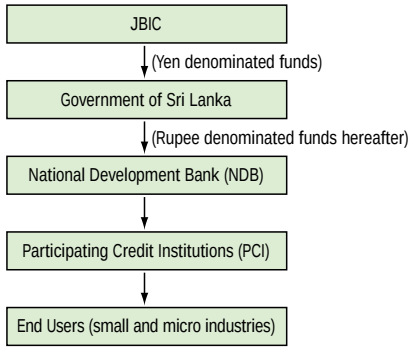
(1) Background and Necessity of the Project
Small- and medium-sized enterprise (SMEs) in Sri Lanka cover a wide array of trades, ranging mainly from the manufacturing industry to the service sector. In the private manufacturing sector, these companies account for 90% by number, 70% by employment and 55% by value-added creation, and they play an important role in the economy of Sri Lanka. Since the country is faced with a relatively high unemployment rate of around 10%, expectations are high for SMEs as well as micro firms to create employment and strengthen the industrial foundation. However, lack of collateral and high interest rates have limited these companies' access to capital investment and long-term operating funds, and thus they are facing difficulties in business expansion.

(2) Objective and Description of the Project
Small and Micro Industries Leader and Entrepreneur Promotion Project (II) (SMILE (II)) aims to provide financing in order to continue the program implemented in Small and Micro Industries Leader and Entrepreneur Promotion Project (I) (SMILE (I)) in 1997. This project will provide low-interest financing to small and micro industries to develop and expand their industrial foundation, and at the same time assist in the technical transfer required to foster these industries. These efforts are expected to expand the production base and generate employment, and at the same time promote economic growth and poverty alleviation.

This project will provide small and micro industries that have limited access to funds with 1) "General Loans" for securing capital investment and long-term operating funds, and 2) "Technical Transfer Loans" for training in technical and financial management. These low-interest loans will be extended via the National Development Bank of Sri Lanka (NDB). Companies eligible for the loans are those in the production, construction, agro-techny, service industries, etc.

The executing agency is the National Development Bank of Sri Lanka, P.O. Box 1825, No. 40, Navam Mawatha, Colombo 2, Sri Lanka, Tel: 94-1-440175, Fax: 94-1-341048.

Scheme (Same for General Loan & Technical Transfer Loans)



3. Southern Highway Construction Project

(1) Background and Necessity of the Project

The number of vehicle registrations in Sri Lanka is increasing by 8% each year, but road expansion has fallen behind demand, and most of the national roads are still two lanes with grade crossings. This situation has caused traffic congestion in the Colombo area and has hampered economic activities. The traffic on National Road A2, which stretches from Colombo to the southern region, is especially heavy in the Colombo area since this is the only national road leading to the southern region. The road's alignment is also a critical problem that has led to chronic congestion for southbound traffic. In addition, this road is unsafe for pedestrians and vehicles that run off the road because its width is narrow and its shoulder is unpaved. However, a major project would be required to repair and widen the road, and therefore it was decided to construct a new road exclusively for automobile traffic as a bypass for National Road A2.

(2) Objective and Description of the Project

This project involves construction of a 128-km highway exclusively for automobile traffic as a bypass for National Road A2. By improving the flow of motor vehicle traffic, the project will relieve traffic congestion in the Colombo area and improve transportation between this area and the southern region. This will contribute to the region's economic development.

The loan will finance civil works, procurement of materials and equipment and consulting services for the construction of the 128-km highway exclusively for motor cars streching from Kottawa in the Colombo area, through Galle to Matara. The bypass will be built about 10km inland along the southwest coast of Sri Lanka. This project is cofinanced with the Asian Development Bank (ADB), with JBIC financing the construction of about 75km between Kottawa and Kurundugahahetekma, and ADB financing about 53km between Kurundugahahetekma and Matara.

The executing agency is the Road Development Authority, Sethsiripaya, Battaramulla, Sri Lanka, Tel: 94-1-884719, Fax: 94-1-888164.

4. Greater Kandy Water Supply Project

(1) Background and Necessity of the Project

The government of Sri Lanka has set "Safe Water for All by 2010" as the country's target, but its water supply ratio in 1998 showed that only 65% of this target had been reached. Due to the recent sharp increase in population in the Greater Kandy area, in particular, the water supply capacity in 1997 remained at 60,000m^3/day against the maximum demand for water of 130,000m^3/day. To overcome this shortage and to ensure better living conditions and public health, expansion of the water supply capacity by improving water supply facilities in Kandy City and the northern part of the Greater Kandy area is an urgent task.

(2) Objective and Description of the Project

As part of the plan to develop an additional supply of water of 110,000m^3/day to the Greater Kandy area, this project will involve an increase in the capacity of water supply facilities in Kandy City and the northern part of the Greater Kandy area, where there is an urgent need to increase water supply capacity. This project aims at achieving a stable supply of water by increasing the hours during which the water is supplied and at improving public health and living conditions by increasing water supply capacity.

The loan will finance the construction of an intake facility, a water treatment plant, a water transmission facility, and a distribution and chlorination facility, as well as procurement of maintenance equipment, and consulting services, including consultation on environmental issues.

The executing agency is the National Water Supply and Drainage Board, Galle Road, Ratmalana, Sri Lanka, Tel: 94-1-867774, Fax: 94-1-869960.

Central Asia and the Caucasus

Kazakhstan

December 21, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Western Kazakhstan Road Network Rehabilitation Project	16,539	2.2	0.75*	30/10	40/10	General Untied	Bilateral Tied

*Special environmental project

Western Kazakhstan Road Network Rehabilitation Project

(1) Background and Necessity of the Project

The target area of the project, western Kazakhstan, is located at the heart of offshore oil-field development activity in the Caspian Sea, which is currently attracting global attention (more than 90% of crude oil in Kazakhstan is produced in this area). It is in this area that various large-scale projects are either underway or being planned. Among them are the development of the Tengiz oil fields, the country's largest, and other oil and natural gas fields, Atyrau Oil Refinery Rehabilitation, also the largest in the country, and pipeline construction.

The trunk road of this region is the West Kazakhstan Road, which cuts across the country east to west, starting from the new capital Astana and linking Aktyubinsk, Uralsk, and Atyrau. The road is used mainly for truck transportation of natural resources, grain and oil products, along with materials required for infrastructure development and related goods. In the vast land of Kazakhstan, this road contributes greatly to smooth freight traffic between east and west. As this road links Central Asia and Europe, it also functions as an international route, carrying freight traffic to Russia and other neighboring countries. In view of these considerations, the government of Kazakhstan has designated this road in the highest priority segment in the National Road Development Plan. However, due to poor construction work (during the former Soviet era) and wear and tear from the heavy traffic of overloaded vehicles, the paved surface of the road has deteriorated badly, and some segments are so bumpy that the drivers find it hard to maintain a proper speed, posing a problem for normal driving and transportation efficiency. Therefore, to ensure smooth freight traffic, rehabilitation work is urgently required.

(2) Objective and Description of the Project

The purpose of the project is to re-pave and repair road-bed for the three most degraded portions of the West Kazakhstan Road, namely Aryrau-Uralsk (total length about 492km); Kostanai Oblast Border-Karabutak (249km); and Karabutak-Aktyubinsk (213km), to ensure efficient road transportation.

The proceeds of the loan will be used for the procurement of civil works, services and consulting services (including support for procurement and coordination of construction) required for the project.

The executing agency is the Ministry of Transport and Communications, Abai Ave. Astana, 473000, Kazakhstan, Tel: 7-3172-321981, Fax: 7-3172-321058.

Uzbekistan

January 31, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Senior Secondary Education Project	6,347	0.75*	—	40/10	—	Bilateral Tied	—

*Special human resources development project

Senior Secondary Education Project

(1) Background and Necessity of the Project

Half of Uzbekistan's population of 24 million is below 20 years of age. This large proportion of young people makes clear the central importance of developing the educational sector.

The country's primary and lower secondary education remains at a relatively high level, due to the beneficial educational heritage from the former Soviet Union era, with enrollment at the primary school level at virtually 100% and a national literacy rate above 97%. An urgent need facing the educational sector is to maintain basic education at this high level as well as to improve the educational system to a level capable of developing young people, who will support the socioeconomic transition toward a market economy. Many of the Russian engineers and academics, who supported the country's industry in the former Soviet era, left Uzbekistan after its independence. This resulted in a serious shortage of human resources in the technological sector. Regarding high school education for 10th graders (15-year olds) and older, educational equipment used at schools is outdated to such an extent that using them is becoming impossible. This poses an obstacle to realization of an educational level that is necessary to nurture human resources to cope with a market economy.

Under these circumstances, in 1997 the government of Uzbekistan enacted the National Program for Personnel Training which aims at improving and expanding senior three-year highschool education for 15-18 years olds, with a focus on vocational senior high schools. Enrolling some 90% of students who finish the basic nine-year education, vocational senior high schools are the pillars of education and provide education that helps students to acquire expert technology knowledge for individual sectors such as agriculture and industry. The government wants to foster human resources with the basic and professional expertise necessary to diversify and modernize its industries in a market economy. Its central focus is vocational senior high schools, and in particular, special education in agriculture, because it is the most important industry in the country, accounting for 30% of GDP and 40% of employment.

(2) Objective and Description of the Project

The purpose of the project is to conduct programs designed to foster human resources that will be engaged in education, and to supply educational equipment to 50 agricultural schools, which are particularly in need of aid, out of some 1,600 vocational schools scheduled to be improved under the educational sector reform. The National Program for Personnel Training intends to transfer expertise and technology from the agricultural education sector in Japan by inviting teachers from the 50 schools covered by the project. They will be given training in Japan in the management of schools and methods of using the agricultural and other educational equipment.

The proceeds of the loan will be used for procuring the equipment and consulting services for implementing the personnel program, and assisting in procurement necessary for the project.

The executing agency is the Center of Secondary Special and Vocational Education under the Ministry of Higher and Secondary Special Education, 5 Mustaquillik Square, Tashkent, 700078, Uzbekistan, Tel: 998-71-139-1718, Fax: 998-71-139-4386.

Oceania

Papua New Guinea

August 16, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Structural Adjustment Program	5,350	2.2	—	30/10	—	General Untied	—

Structural Adjustment Program

(1) Background and Necessity of the Project

Papua New Guinea has a land area of 460,000km^2, or 1.25 times the size of Japan, divided into two segments by rugged terrain. Accordingly, the economy has a dual structure. Twenty per cent of the population, estimated to total 4.6 million in 1998, lives in the urban areas, predominantly around the capital, with their livelihood supported by income generated in the manufacturing and oil industries as well as from government expenditures. By contrast, 80% of the population lives in rural highlands, and a half of these people are living in poverty, without access to basic public services.

The national economy has traditionally been dependent on the mining industry, which is at the mercy of the ups and downs of the world market for mineral products. Hence the economy is vulnerable to external shocks. During the 1990s, in particular, failed economic policies, natural disasters and extraordinary weather often led to unstable production activities. Thus, despite its abundant resources of gold, copper, oil and natural gas, vast stretches of arable land, and forest and marine resources, the average annual per capita income was US$890 in 1998, a low level even among the developing countries. The country is lagging in social development compared with other low-income developing countries, with a significant gap in the distribution of income.

A major drought and earthquake that hit Papua New Guinea at the end of 1997 dealt a substantial blow to its economy. In addition, depressed gold and timber prices in the world commodity markets worsened its balance of payments situation. Export earnings dropped a fall in product prices, exacerbated by a downturn in the non-mining industries. Unemployment reached 36% in 1998, and inflation soared to an annual rate of 20% by year-end. The result was a steep decline in real wages and increasingly lower standards of living.

The balance of payments posted deficits of US$204 million and US$189 million in 1997 and 1998, respectively. This was due to an adverse development in the current account, caused by a jump in imports, and large-scale capital outflows, brought on by an excessively loose monetary policy and loss of confidence. As a result, foreign currency reserves plunged from US$586 million (5.4-month worth of imports) at the end of 1996 to US$204 million (2.1-month worth of imports) at the end of 1999. The fiscal deficit reached 3.5% of GDP in the first half of 1999. The exchange rate of its currency, the kina, fell as much as 50% from 1996 to 1999. The IMF estimates that the country will face a foreign currency shortage of US$300 million in 2000.

(2) Objective and Description of the Project

To improve economic conditions, the government of Papua New Guinea will embark on a structural adjustment program with financial support from international donors, including JBIC. The program aims at improving fiscal control, official debt management, business environment, efficiency in the public sector, health and educational services, budgetary allocation, forest management, and efficiency in financial services.

The objectives of this loan are to improve the balance of payments position and attain macroeconomic stability by providing funds that finance general imports, and to achieve economic and social structural reforms through supporting the structural adjustment program, thereby restoring confidence in the economy. The revenues obtained by making use of this loan will be allocated mainly to the four priority areas for development, namely health and medical care, education, rural infrastructure and the primary industries.

Central and Eastern Europe

Romania

March 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Railway Rehabilitation Project of Bucharest-Constanta Line	25,635	2.2	0.75*	30/10	40/10	General Untied	General Untied

*Special environmental project

Railway Rehabilitation Project of Bucharest-Constanta Line

(1) Background and Necessity of the Project

The EU's policy of expanding eastward, adopted from the mid-1990s, has placed priority on improving the main railways and roads in Central and Eastern Europe, known as the European Corridors, and on unifying the standards of the Corridors with those of Western European countries. In 1994, as part of these efforts, the Pan-European Conference on Transport decided on the development of the Pan-European Transport Corridors in view of the expanded international traffic generated in the Eastern European region. Romania undertook the responsibility of developing the sections that passed through its part of Pan-European Corridor IV (Berlin-Istanbul), Corridor VII (Danube waterway), and Corridor IX (Helsinki-Provdiv).

Following the collapse of the socialist regime, Romania continued to suffer fiscal deficits due to inefficient operation of the former Romania National Railway, which became independent from the Ministry of Transport in 1991. This situation has led to an aging of existing railways due to limited new investment, and has slowed down operations due to the aging of the railroad bed infrastructure.

Against this backdrop, the Romanian government divested itself of the former Romania National Railway and pushed forward drastic reforms in the organization and legal framework of the railroad sector. The country has recognized the improvement and rehabilitation of the aging railroad infrastructure as an urgent task, and an early action is required.

(2) Objective and Description of the Project

As part of the modernization of railway equipment, the purpose of this project is to upgrade the existing railway and related facilities between Bucharest and Constanta of Pan-European Corridor IV to meet EU standards. This project also aims to secure stability and safety, raise transport capacity mainly for cargo, and improve transport efficiency. The rehabilitation of the part of Pan-European Corridor IV that passes through Romania is expected to promote distribution of goods in the region, and at the same time contribute to the growth of Romania and neighboring countries.

The executing agency is the National Railway Company "CFR"-SA, 38, Dinicu Golescu, Bucharest, 77113, Romania, Tel: 40-1-222-36-37, Fax: 40-1-223-19-74.

The Middle East

Iran

October 26, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Masjid-e-Soleiman Hydroelectric Power Project (II)	7,494	2.2	—	25/7	—	General Untied	—

Masjid-e-Soleiman Hydroelectric Power Project (II)

(1) Background and Necessity of the Project

With the revival of the economy following the Iran-Iraq War (1980-1988), maximum electricity demand in Iran surged to 18,425MW as of the end the March 1999 of from 9,537MW in 1990. In order to keep up with this demand, the Iranian government actively promoted development of power resources, and facilities with an output of 20,000MW were developed up through 1995. However, electricity demand in Iran continues to climb, with annual growth rate for 2000 forecast at 7%, and thus development of additional power resources is a pressing issue. This project is part of the new power generation project being implemented by the Iranian government, which includes development for hydroelectric power generation with an output of 8,000MW and thermal power generation with an output of 5,500MW.

(2) Objective and Description of the Project

The Masjid-e-Soleiman Hydroelectric Power Project involves construction of a rock-fill type dam and an underground power station with an output of 2,000MW some 20km downstream of the existing Karoon I Dam, located in the Karoon River basin in the southwestern region of the Islamic Republic of Iran, in order to meet the country's increase in electricity demand. An ODA loan for Phase I of this project was signed in June 1993 (loan amount ¥38,614 million), and the project is currently being executed.

The loan this time covers Phase II of this project, and proceeds of the loan will be used to provide financing for civil works needed for the project.

The executing agency is the Iran Water and Power Resources Development Company, 212 Ostad Nejatollahi St. Tehran 15987 Iran, Tel: 98-21-8844856, Fax: 98-21-8839651.

Africa

Morocco

June 9, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Rural Water Supply Project (II)	2,462	1.7*	0.75**	30/10	40/10	General Untied	Bilateral Tied

February 6, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Meknes-Fes Track Doubling Project	4,947	2.2	—	30/10	—	General Untied	—
Agadir Water Supply Project	6,412	1.7	0.75	30/10	40/10	General Untied	Bilateral Tied
Total (3 Commitments)	13,821						

*Standard environmental project **Special environmental project

1. Rural Water Supply Project

Morocco's social infrastructure development is lagging in rural areas compared with urban areas, and the difference in the development level between the two poses a major problem for the country's sustainable development and social stability. To reduce this difference, the Moroccan government has been undertaking a rural water supply development program through the Ministry of Equipment and Office National de l'Eau Portable (ONEP) since 1996. Under the program, about 11 million people in 31,000 villages will gain access to water supplies across the country. This is an effort to improve the coverage of the population with water supply systems (only 20% is now connected to systems) and provide a stable supply of water. This program has received financial assistance not only from JBIC, but also from the World Bank, KfW of Germany and AFD of France, etc.

This project is part of the rural water supply project undertaken by the Moroccan government in the four provinces of Azillal, Beni Mellal, Khenifra and Khouribga. It aims to provide a stable water supply to local residents through construction of water supply facilities that use wells as water sources, thus achieving better living conditions in rural areas.

The proceeds of JBIC's loan will be used to purchase equipment and materials, and to undertake civil works as well as services for the project.

The executing agency of the project is the Général Directorate of Hydraulic, Ministére de l'Equipement, Rabat-Instituts (Hay Ryad), Morocco, Tel: 212-7-76-83-86, Fax: 212-7-76-97-69.

2. Meknes-Fes Track Doubling Project

(1) Background and Necessity of the Project

The Office National Des Chemins de Fer (ONCF) runs railroad projects in Morocco and has already constructed a railroad network totaling 1,907km. ONCF has undertaken institutional reform in the railroad sector and new investment has been made in selective areas in order to strengthen competitiveness with road transportation. In particular, the area between Casablanca and Fes is the country's axis of economic development. Since 1975, a doubling of the track of this 320-km rail link has proceeded step by step in order to strengthen transport capacity in this area. At present, of the overall project, the final 57-km segment between Meknes and Fes remains to be completed. Traffic on this route has reached saturation, and doubling of the track there is designated as one of the main projects in the railway sector in the country's Five-Year Development Plan.

(2) Objective and Description of the Project

The objective of this project is to double the track, strengthen transport capacity by improving the railway route, speed up trains and cut transport time by reducing the number of curves, and improve safety and punctuality by eradicating grade crossings. It is expected that completion of doubling of the track between Casablanca and Fes under this project will contribute to the economic development of the area along the track. The project is cofinanced with the European Investment Bank (EIB) and the government of France.

The executing agency is the Office National Des Chemins de Fer (ONCF), 8 bis, rue Abderrahmane, El Ghafiri, Agdal, Rabat, Morocco, Tel: 212-37-77-96-23, Fax: 212-37-77-39-19.

3. Agadir Water Supply Project

(1) Background and Necessity of the Project

As Morocco is situated in a semi-arid region, water is a valuable source of life and economic development for the country. Morocco has always put its highest priority on securing water, and has continued to include the development of water resources and water supply facilities when considering agendas for its development plan. Although 86% of the population in urban area had access to water supply facilities as of 1998, medium-sized or large cities are faced with an urgent need to increase water supply capacity due to rapid urbanization, and thus infrastructure development is underway. The project will focus on Agadir, a major city in the southwest region that has experienced a sharp increase in water demand due to the growing tourism industry. The demand for water is expected to reach the maximum water supply capacity by 2004. In response to sharp increases in water demand, JBIC has extended ODA loans in the past: In 1995, the Water Supply Improvement Project that covered 18 regional cities, and in 1997, the Water Supply Improvement Project II that constructed water supply systems in Oujda, situated in the eastern part of Morocco, and Safi, in the western part of the country.

(2) Objective and Description of the Project

The objective of the project is to develop a new water supply system for Agadir, one of the major cities in the southwest region, by pulling water from the Ait Hammou Dam, which is currently under construction (completion expected for March 2002). The project will ensure supply of safe water for the residents of eight districts of the city of Agadir up to 2018 through a newly installed water supply system. This project is expected to contribute to the sustainable development of the city, which is a center for tourism and fishing ports and to improve its living environment.

The executing agency is the Office National de l'Eau Potable, Division de Génie Civil, Direction d'Equipment, 6 bis, rue Patrice Lumumba, Rabat, Morocco, Tel: 212-37-76-12-81, Fax: 212-37-76-72-47.

Tunisia

February 7, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Metropolitan Railway Electrification Project	13,171	2.2	0.75*	25/7	40/10	General Untied	Bilateral Tied

*Special environmental project

Metropolitan Railway Electrification Project

(1) Background and Necessity of the Project

The government of Tunisia has been proceeding with a transportation sector development plan under the Ninth National Development Plan (1997-2001). A reduction of urban traffic congestion, resulting from the rapid urbanization and population growth, is considered one of the priorities in the investment field. The recent population growth has led to expansion of the Tunis metropolitan area, which is the country's economic, social and administrative capital with a population of some 2 million. As a result, the area faces a serious rush-hour traffic congestion problem and consequently environmental aggravation.

(2) Objective and Description of the Project

The objective of the project is to electrify the 23-km railway (Tunis-Borj Cedria) in the southern part of the Tunis metropolitan area, to expand and electrify the depot in Borj Cedria, and to procure train cars. This is an effort to respond to the ever growing demand on the Tunis suburban line. There are 210,000 people currently residing near the railway, and this is estimated to surge to 300,000 in 2006. The project is expected to help improve the transportation capacity of the metropolitan railway, reduce traffic congestion by encouraging a shift from road transportation, and contribute to the alleviation of air pollution and other environmental problems. JBIC earlier contributed to the reduction of congestion in the Tunis metropolitan area by giving financial support for the Rades-La Goulette Bridge Construction Project, for which a loan agreement was signed in March 1999.

The executing agency is Société Nationale des Chemins de Fer Tunisiens (SNCFT), Gare Centrale de Tunis, Tunis, Tunisia, Tel: 216-1-334-444, Fax: 216-1-900-140.

Swaziland

January 30, 2001

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Northern Main Road Construction Project	4,412	2.2	0.75*	30/10	40/10	General Untied	Bilateral Tied

*Special environmental project

Northern Main Road Construction Project

(1) Background and Necessity of the Project

In response to the progress toward integration among southern African economies, which was inspired by the emergence of democracy in the Republic of South Africa in 1994, Swaziland has been tackling such issues as development of domestic industries and strengthening access to neighboring countries in the region. In this context, improving the main road that links Swaziland and neighboring countries, including South Africa, has a major significance not only for the country's future economic growth but for the well-balanced development of the region as well, and thus needs to be addressed urgently. The northern main road (a sub-corridor of the Maputo Corridor that connects Pretoria, the capital of South Africa, and Maputo, the capital of Mozambique) stretches 103km and links the major industrial zone located in the central part of Swaziland with the Maputo Corridor, the trunk road in the southern African region. It has significant importance for the export sector of Swaziland as well as for the entire regional economy. However, the road is in urgent need of rehabilitation, with its surface unpaved and uneven, and its bridges showing wear and tear.

(2) Objective and Description of the Project

The purpose of the project is to lay new asphalt pavement on two portions of the northern main road (MR) (a two-lane road, MR5 (Mliba-Tshaneni, 55km) and MR6 (Madlangampisi-Msahwenei, 48km). It will also involve repair and construction of bridges (at six locations) to reduce the time and cost of travel. The project is expected to result in more efficient and faster distribution on the country's main road, and to consequently contribute to the promotion of distribution and development of industries in Swaziland and in the region.

The executing agency of the project is the Ministry of Public Works and Transport, Road Department, Swaziland, P.O.Box 58, Mbabane, Swaziland, Tel: 268-404-5729, Fax: 268-404-2364.

Latin America and the Caribbean

Peru

September 5, 2000

Project Name	Amount (Millions of Yen)	Interest Rate (%, p.a.)		Repayment Period/Grace Period (Years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Sierra-Natural Resources Management and Poverty Alleviation Project (III)	5,558	1.7	0.75	25/7	40/10	General Untied	Bilateral Tied
Social Sector Development Project in Sierra Area II (FONCODES II)	6,794	2.2	0.75	25/7	40/10	General Untied	Bilateral Tied
Provincial Cities Water Supply and Sewerage System Improvement and Expansion Project (Iquitos, Cusco and Sicuani)	7,636	1.7 0.75*	0.75	25/7 40/10*	40/10	General Untied Bilateral Tied*	Bilateral Tied
Lima Marginal Areas Sanitary Improvement Project	24,854	1.7	0.75	25/7	40/10*	General Untied	Bilateral Tied
Total (4 Commitments)	44,872						

*Sewerage system portion

1. Sierra-Natural Resources Management and Poverty Alleviation Project III

(1) Background and Necessity of the Project

In the Andean region of the Sierra, which encompasses 30% of Peru's terrain, two-thirds of the people live in poverty. Almost half of them are in dire poverty, unable to meet minimum dietary nutritional requirements.

Most of the inhabitants of the Sierra make their living by farming on steep slopes and engaging in traditional agriculture and herding. Productivity is low due to low technology and infertile soil. Poorly-managed farming has led to soil erosion, deforestation and a reduction in water retention in the soil, resulting in a worsening of the environment. This has created a vicious cycle of declining productivity and ecological destruction.

To break this vicious cycle, in 1981 the government of Peru set up the National Project for the Management of Watershed Basins and Soil Conservation (PRONAMACHCS) with a mandate to increase production and alleviate poverty among those living in the Sierra region, and to conserve the environment for sustainable agriculture.

The government of Peru made a request to the World Bank and the government of Japan for financial assistance to implement projects under PRONAMACHCS. Beginning in 1997, the World Bank set out to provide assistance for 22 out of 122 offices of PRONAMACHCS. Similarly, Japan provided a total of ¥5,667 million in assistance for 14 offices of PRONAMACHCS as an ODA project in fiscal 1997 and in fiscal 1998 provided ¥7,259 million for 22 offices.

(2) Objective and Description of the Project

The current project covers an additional 22 offices, providing support for sub-projects that develop rural infrastructure, including afforestation, development of anti-soil erosion farmland, small-scale irrigation facilities, building of agricultural produce storage and assistance in acquiring agricultural production equipment. These sub-projects will be implemented with the participation of the local populace throughout the project, from inception to completion. The project objective is to strengthen local community organizations, improve living environs and develop infrastructure for production activities, thereby establishing farming practices that result in high and meet environmental conservation needs.

The proceeds of the loan will be used for procurement of materials, equipment and services for the project as well as consulting services, including advisory service for maintenance and control and evaluation studies.

The executing agency is the National Project for the Management of Watershed Basins and Soil Conservation (Proyecto Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos), Av. Alameda del Corregidor 155, La Molina, Lima, Peru, Tel: 511-349-3369, Fax: 511-349-3394.

2. Social Sector Development Project in Sierra Area II (FONCODES II)

(1) Background and Necessity of the Project

Development of a social and economic infrastructure that provides services to meet basic human needs (BHN) is of great urgency if Peru is to raise the living standards of its rural populace. Since many people live in small and isolated villages scattered across the land, development of the infrastructure has to be implemented on a grass-roots level.

The government of Peru set up the National Social Development Fund (FONCODES) in 1991 to address this urgent challenge. The World Bank and the Inter-American Development Bank (IDB) have so far provided a total of US$200 million assistance for FONCODES in two installments, thereby supporting its activities across the country. The government of Japan has provided ODA loans as follows: A total of ¥5,976 million in fiscal 1997 for Social Sector Development Project in Amazon Area to support development of an economic infrastructure, including roads and bridges, in the Amazon region and the public health infrastructure, including water, sewerage and latrine supply; a total of ¥7,259 million in fiscal 1998 for Social Sector Development Project in Sierra Area, in the four provinces in the mountainous Sierra region, namely, the southern and northern part of "the poverty triangle of the Andes."

(2) Objective and Description of the Project

The present project targets the four main provinces in the Sierra region, as in the fiscal 1998 project. It is designed to develop economic and social infrastructure, including schools, clinics, village community facilities, roads, electric power facilities, with local participation. The main objective of the project is to strengthen local community organizations and reduce poverty by providing services to meet basic human needs.

The proceeds of the loan will be used for procurement of materials, equipment and services for the project as well as consulting services, including advisory service for maintenance and control and evaluation studies.

The executing agency is the National Social Development Fund (Fondo Nacional de Compensación y Desarrollo Social), Paseo de la Republica 3010, Lima 27, Peru, Tel: 511-421-4028, Fax: 511-421-8026.

3. Provincial Cities Water Supply and Sewerage System Improvement and Expansion Project (Iquitos, Cusco and Sicuani)

(1) Background and Necessity of the Project

Peru faces the following three major tasks concerning its water supply and sewerage system in urban areas: 1) increases in the coverage of water supply and water supply capacity; 2) increase in the coverage of the sewerage system and development of sewage treatment facilities; and 3) reduction in unaccounted water ratio to improve management.

Peru's water supply and sewerage sector received minor investment in the 1980s when the country faced economic difficulties, resulting in little improvement. In 1989, management was transferred to local governments as part of a decentralization policy. Subsequently, local governments were not able to fully cope with the issues arising from the aging of existing facilities and increasing demand. This situation did not improve.

In the 1990s, the government of Peru recognized the importance of improving and expanding water supply and sewerage systems, and improvement plans that took into account the size of each city, and implemented programs accordingly. Major donors have also contributed to the expansion and rehabilitation of facilities and helped improve business operations. Notably with the water supply and sewerage public corporations in regional cities, IDB has played a leading role in improvement efforts, including proposal of policies on sector reform and support in building an institutional framework. JBIC and KfW in Germany are also cofinancing these efforts.

(2) Objective and Description of the Project

This project involves expansion and improvement of the existing water supply facilities in the Iquitos City in Loreto Province (the major city of the Amazon region), the expansion and rehabilitation of the existing water supply and sewerage facilities in Cusco City and Sucuani City in Cusco Province (a transportation hub and tourist and business center) with the aim of improving environmental and hygienic conditions in these areas. The project also includes assistance to local water supply and sewerage corporations in

their efforts to make improvements in the tasks before them.

The proceeds of the loan will be used for the purchase of equipment and services needed to implement this project and for consulting services (detailed designs, assistance in procurement, and construction supervision).

The executing agency is the Programa Nacional de Agua Potable y Alcantarillado (PRONAP) under the Ministry of the Presidency, Avenida Benavides 2199, Piso 5, Miraflores, Lima, Peru, Tel: 51-1-271-9638, Fax: 51-1-271-2707.

4. Lima Marginal Areas Sanitary Improvement Project

(1) Background and Necessity of the Project

Water shortages during the dry season have been a serious problem in the metropolitan Lima area. This is the most populous city in Peru, at 7.2 million people. Securing a steady water source has been a vital issue. The government of Peru is making efforts to develop new sources of water, but at the same time the existing water treatment facilities are already operating at maximum capacity. Thus, they are faced with the problem of not being able to supply enough water in the future due to insufficient water treatment facilities, even if new water sources are secured.

Furthermore, with the influx of low-income earners into the metropolitan Lima area and rapid urbanization in marginal areas, the city's population will continue to rise, with the residential areas primarily in the marginal sectors of the city expected to expand. Many people in low-income groups have occupied public land as squatters and have formed communities called "Poblaciones Marginales (marginal residences)" where they built their own dwellings. The basic infrastructure, such as water supply and sewerage system, did not exist on the public land where these dwellings were built. Furthermore, there have been no improvements in infrastructure development in many cases because these are arbitrary residential areas. As a result, many of the residents must rely on water supplied from privately-run water supply vehicles with poor water quality and small water storage tanks in which quality control is questionable. The low standards in the sewerage system have also led to serious health and sanitary problems.

(2) Objective and Description of the Project

This project involves construction of new water treatment facilities (intake facility, water treatment plant, basic water conduits) and improvement of water supply and sewerage system in order to improve the living environs for low-income groups in the marginal areas of Lima.

The proceeds of the loan will be used for the purchase of equipment and services needed to implement this project and for consulting services (detailed designs, assistance in procurement, and construction supervision).

The executing agency is the Servicio de Agua Potable y Alcantarillado de Lima, Planta La Atarjea, Km.1, Autopista Ramiro Priale, Lima, Peru, Tel: 511-317-3000, Fax: 511-317-3059.