JBIC2005

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1. EAST ASIA

JBIC Operations in East Asia

In China where a large market is emerging, Japanese firms have been strengthening and expanding business activities. JBIC supported their overseas business development. Since China is facing challenges of tight supplies of energy resources and environmental problems, JBIC also supported the effective exploitation of untapped energy resources and environmental improvement by financing the methane gas recovery project (see below) and the coal gasification project.

In ODA loan operations for China, JBIC supported environmental conservation and human resource development in inland regions, under the guidance of the Economic Cooperation Program for China, prepared by the Japanese Government in October 2001, and JBIC's Medium-Term Strategy for Overseas Economic Cooperation Operations. To provide assistance being conducive to "aid visibility," JBIC collaborated with Japanese local governments and NGOs from the project formation stage.

Under the Asian Bond Market Initiative, JBIC provided guarantee for Korean collateralized bond obligations (Pan-Asian bonds), thereby serving to develop capital markets in Asia.

CHINA

International Financial Operations

Supporting Power Generation and Supply of Manufactured Gas in Urban Areas by Recovering Methane Gas in Coal Mines: Making Use of the Kyoto Mechanisms

In China, which is hard pressed to deal with tight supply in energy resources, a project is underway where methane gas emissions from a coal mine in Jincheng City, Shanxi Province, will be recovered and used as fuel for power generation, and as manufactured gas for urban households in Jincheng City.

JBIC provided a loan totaling US\$20 million for the Chinese Government to support this project in cofinancing with the Asian Development Bank (ADB) and a private financial institution.



This project will not only alleviate tight supply in energy resources in China. Reduced use of coal will also lead to lower emissions of air pollutants, including sulfur dioxides and nitrogen oxides, contributing significantly to environmental improvement. The Chinese Government has expectations for this project as a candidate Clean Development Mechanism (CDM) project.¹ The Prototype



Carbon Fund (PCF) of the World Bank, where JBIC participated, has signed an emission reduction purchase agreement (ERPA) with the Chinese project executing agency.

The facility for supplying recovered coal mine methane as town gas to consumers

¹ The Clean Development Mechanism (CDM) is one of the mechanisms of the Kyoto Mechanisms, which are an economic scheme set out in the Kyoto Protocol under which industrial countries and economies in transition (Annex I parties) can achieve their greenhouse gas (GHG) emissions reduction targets. It allows industrial countries to undertake joint projects with developing countries, and the investing country (industrial country) may use emissions reduction credits (called Certified Emission Reductions (CERs)) generated from such projects to meet its own GHG emissions reduction target.

of Operations by Region

International Financial Operations

Supporting an Auto Parts Manufacturer Entering the Chinese Market: Contributing to Overseas Business Development of SMEs with Unique Technology

Molten Corporation, headquartered in Hiroshima, is a leading manufacturer of balls used in sports, such as soccer and volleyball, accounting for more than a 60 percent share of the domestic market and close to a 20 percent share in the world market. Molten has applied polymer technology cultivated in ball manufacturing to developing and producing rubber products for automobiles, including vibration-insulating rubber parts for suspension and rubber parts for protecting wire harnesses. Since 1990, the company has expanded business operations across the world in response to requests from domestic vehicle manufacturers, setting up production bases in the United Sates, Thailand and Mexico.

In March 2003, Molten established Molten Sports (Jiaxing) Corporation, a local affiliate in China, in Jiaxing, near Shanghai, as its production base for the fast-growing Chinese market. Molten Sports (Jiaxing) Corporation started the production of rubber products for automobiles from November 2003.

JBIC extended a long-term loan to Molten Corporation for manufacturing and selling automobile rubber products in China. The loan supports the company's overseas business development, thereby helping to stake out its market in China and other foreign countries. At the same time, this affiliate is expected to transfer technology on auto parts manufacturing and generate foreign currency earnings through product exports.



Supporting Eco-Environmental Conservation in Cooperation with the Domestic Local Government: Recovering Ecological System in Forests and Preventing Natural Disaster

In Sichuan Province, located in inland China, excessive logging and lack of proper forest management in the process of recent rapid economic development and population growth have resulted in shrinkage and degradation of forests. Forests have thus lost their function, causing soil erosion, which, in turn, has made floods and other natural disasters an annual phenomena. To restore the function of forests, the Sichuan provincial government drafted the 10th Five Year Plan for Sichuan Province (2001-05), and, based on the Plan, has been planting trees in 1.3 million hectares and vegetation in 1.15 million hectares, as well as expanded designated erosion control areas to 450 hectares.

Under these circumstances, JBIC provided an ODA loan totaling 46.5 billion to finance the Eco-environmental Construction and General Treatment Project of the Yangtze Upper Reaches in Sichuan Province. The project aims to increase forestland and reduce soil erosion by planting trees and shrubs in the upper reaches of the Yangtze. In addition, to prevent logging for firewood, a methane gas facility will be constructed to supply an alternative fuel source.

JBIC asked Hiroshima Prefecture, which has friendship ties with Sichuan Province, to participate in the project from the preparation stage. Afforestation experts in the Hiroshima prefectural government made presentations on their know-how to the Chinese officials involved in the project. The prefectural government also plans to accept the staff of the project executing agency for training in Japan. In this way, JBIC will collaborate with domestic local governments to support sustainable environmental conservation.



Experts in Hiroshima Prefecture sharing their know-how on afforestation with Chinese officials



The production line of rubber products for automobiles

Overseas Economic Cooperation Operations

Supporting Human Resource Development in Universities in Inland China: Exchange with Japanese Educational Institutions through Training and Joint Research

There is a growing need for higher education in China. For example, in inland regions where development is lagging relative to coastal regions, there is a pressing need to develop human resources capable of addressing development challenges such as adaptation to the transition to a market economy, as well as conducting environmental conservation research. In the 10th Five Year Plan, the Chinese Government set the target of increasing the gross enrollment rate¹ in higher education (undergraduate and graduate) and has been working toward both quantitative expansion and qualitative improvement in higher education.

JBIC provided an ODA loan totaling ¥5.07 billion for the Inland Higher Education Project to advance university-level education in the northwestern Inner Mongolia Autonomous Region. The project supports eight higher educational institutions in terms of both hardware and software aspects: the construction/installment of school buildings and educational equipment, and the training of the teaching staff. In particular, support in the software aspect is expected to promote mutual understanding between China and Japan through training and joint research between the targeted higher educational institutions, and Japanese institutions accepting the trainees.

Toyama Medical and Pharmaceutical University, which has a cooperation agreement with the Inner Mongolia Medical College, joined the planning of the project, and JBIC and the university jointly discussed training with target universities in China. JBIC will advance partnership with Japanese universities in supporting human resource development.

KOREA

International Financial Operations

Guarantee for Collateralized Bond Obligations: Contributing to the Asian Bond Market Initiative

JBIC has been actively pushing forward the Asian Bond Market Initiative (ABMI)² advocated by the Japanese Government in December 2002.

In June 2004, the Japanese and Korean Governments agreed to make a joint effort to develop collateralized debt obligation (CDO) markets under the ABMI. Based on this agreement, JBIC provided guarantees in December 2004 for collateralized bond obligations (CBOs; Pan-Asian bonds) amounting to \$7.7 billion and secured on Korean corporate bonds.

The financial scheme was as follows: CBOs secured on corporate bonds issued by 46 Korean small- and mediumsized enterprises (SMEs) were first structured and divided into senior and junior bonds. Then, the Industrial Bank of Korea (IBK),³ a governmental financial institution, provided credit guarantee for thus structured senior bonds. Finally, JBIC-guaranteed bonds are issued in the Singaporean securities exchange as guaranteed bonds and



A workshop was held in Xi'an to discuss the human resources development project.



The signing ceremony on guarantee provision for CBOs

2 The Asian Bond Market Initiative was launched to prevent the recurrence of the Asian currency crisis by channeling funds in the Asian region characterized by high saving rates to investments within the region. Currently, discussions are underway among the governments of the countries of ASEAN+3 (Association of Southeast Asian Nations + Japan, China and Korea) on ways to develop and invigorate bond markets in Asian countries.

3 The Industrial Bank of Korea is a governmental financial institution established with capital contribution by the Korean Government for the purpose of developing and supporting SMEs in Korea.

¹ The gross enrollment rate = number of students enrolled (including those outside the relevant age group)/school age population

sold to investors in Japan and Asia (see the illustration of the scheme).

The provision of guarantees by JBIC and the IBK has made it possible to issue innovative cross-border collateralized bond obligations, thereby helping to develop the Asian capital market.



OTHERS

International Financial Operations

Contributing to Energy Efficiency Projects: Support to Japanese Firms' New Overseas Environmental Business

Reflecting the growing interest in global warming, ESCO¹ projects, which promote energy efficiency and renewable energy projects, are attracting attention across the world. Also in Asia, momentum has been enhanced for undertaking such environmental projects in recent years.

JBIC has participated in the FE Clean Energy Fund (also called the Asia ESCO Fund), along with Chubu Electric Power Company, Hokkaido Electric Power Company and Mitsubishi Corporation. The Fund will accept new investors up to US\$150 million as an aggregate amount. The Asian Development Bank (ADB) and Proparco, a French public corporation for promoting investment and economic cooperation, also participated in the Fund.

This is the first fund in Asia to invest in energy-saving and renewable energy projects. ESCO and renewable energy projects require public-private collaboration, since these projects involve high risks associated with uncertainties regarding environmental laws and policies in developing countries. JBIC, which has developed close ties with developing country governments as a Japanese governmental financial institution, participated in this Fund to support Japanese private firms' new overseas environmental business by drawing on various experiences of negotiations and providing information on country risk and investment climate in the countries where investments are made.

¹ ESCO is an acronym for Energy Service Company. ESCO projects will provide services for the clients, such as factories, buildings and hotels, to increase energy efficiency by making improvements in their facilities and earn revenues from savings generated from reduced costs of energy consumption (such as lighting and heating).

2. SOUTHEAST ASIA

JBIC Operations in Southeast Asia

The Japanese Government has its sights set on signing economic partnership agreements with Southeast Asian countries in order to further increase Japanese trade and investment activities there. In this context, JBIC combined its various financial tools and supported improvements in individual countries' investment climate to catalyze private investment, reduce poverty and achieve sustainable growth.

A case in point is Indonesia, which registered a solid 5.1% real growth in FY2004. To meet growing electricity demand arisen from such growth, the Indonesian Government adopted the policy of promoting power development with private participation in financing, in addition to public sector-funded power infrastructure development, and has set out on the comprehensive reform of the power sector. JBIC supported power development in Indonesia by providing export credits and ODA loans (see p. 39). Furthermore, JBIC drew on its experience and networking and made comprehensive recommendations on reform in the power sector in partnership with the World Bank and the ADB.

In supporting the development of the Greater Mekong Subregion, ODA loans were provided to finance telecommunications and power infrastructure development in Cambodia and Laos based on the Japan-ASEAN Plan of Action launched in December 2003 (see p. 43). JBIC also delivered the Blue Book, policy recommendations for improving the investment

INDONESIA

International Financial Operations Two-Step Loan for Local Japanese Affiliates: Supporting SMEs' Overseas Investment

Since the Asian currency crisis, direct foreign investment flows to Indonesia have been on the decline due to lagging improvement in the country's investment and business environment. The Indonesian Government has been striving to make improvements and review policy in these areas. Amid these developments, Japanese affiliates, particularly of small and medium enterprises (SMEs), have needs for long-term funds to improve or expand their facilities, as they regard Indonesia as an important manufacturing base in holding and expanding their markets in Southeast Asia.

Japanese private financial institutions have branch offices and affiliates in Indonesia. However, since the Asian



climate for attracting foreign direct investments to the two governments (see p. 17).

As the first assistance under the Asian Bond Market Initiative, JBIC supported local financing by providing a guarantee for the local currency bond issue of a Japanese affiliate in Thailand (see p. 41).

currency crisis, their loans to Japanese affiliates have required, in principle, credit enhancements such as collateral offered by the parent company based on considerations of Indonesia's country risk.

JBIC provided a two-step loan totaling up to US\$20 million and ¥500 million for P.T. Bank Resona Perdania (BRP) to meet financing demand of Japanese affiliates by reducing country risk, which private financial institutions can hardly do. This two-step loan will facilitate, through BRP, the provision of stable, long-term financing for affiliates set up by Japanese SMEs without the backing of domestic collateral. A more stable business environment resulting from this loan will increase the competitiveness of Japanese firms, thereby helping to secure overseas markets. Business development and expansion by Japanese affiliates will also contribute to the country's foreign currency earnings and development of supporting industries.

Administrative

International Financial Operations

Export Credit for the Power Sector: Supporting Japanese Power Plant Exports of Japanese Private Companies

In Indonesia, power shortages are a serious concern, in particular, demand in the Java-Bali power system, which serves the capital city of Jakarta, is projected to increase 6.8% annually through 2010. JBIC provided various loans to provide financial support for Japanese plant exports to the power sector in Indonesia.

In the capital city of Jakarta, construction and expansion of gas insulated switchgear (GIS) substations, as well as laying of underground cables between these substations are underway. To finance Japanese exports of power transmission and transformation facilities, JBIC provided two export loans totaling 2.7 billion and 1.6 billion, respectively for the Indonesian Government in cofinancing with private financial institutions.

In Cilegon district, western Java, a natural gas-fired combined-cycle power plant with a capacity of 740 MW is now being constructed. To finance Japanese exports of power generation facilities to this project, JBIC provided an export loan totaling up to \$30.4 billion for the Indonesian Government in cofinancing with private financial institutions.

In addition, the country's existing aging power facilities are in need of rehabilitation. JBIC provided a yendenominated export credit line¹ totaling up to ¥27.5 billion for the Indonesian Government to finance the purchase of the power generation facilities to be exported from Japan. This may lead to increased business opportunities for Japanese firms to export power-related facilities.

Through these loans, JBIC has been contributing to a stable supply of electricity as well as Japanese firms' local business expansion.

Overseas Economic Cooperation Operations Building a Geothermal Power Plant in South Sumatra: Helping also GHG Emission Reduction

The power generation capacity in the South Sumatra grid system was 1,607 MW in 2003. Its peak power demand is projected to grow by an annual average of about 7.9 percent, reaching 2,429 MW in 2013. Thus there is a need to develop new power sources.

To alleviate the projected tight power situation, JBIC provided an ODA loan totaling \$20.29 billion for the Ulubelu Geothermal Power Plant Project. The project aims to stabilize power supply in South Sumatra and contribute to regional economic development by building a geothermal power plant with a capacity of 110 MW that links up with the South Sumatra grid system.

By harnessing geothermal power as a renewable energy source, the new plant will reduce pollutants and carbon dioxide emissions compared with a similar capacity thermal power plant. As the project will lead to a reduction in greenhouse gas (GHG) emissions, discussion is underway with the Indonesian Government aiming at the application of the Clean Development Mechanism (CDM) under Kyoto Protocol.



Assessing community needs in a village benefiting from electricity supply



A power plant under construction in the Cilegon district, Java

1 Export credit line is a form of export financing to promote equipment exports from Japan. It specifies an amount of the maximum credit to be extended in advance. A loan under this credit line is extended to an importer through the importing country's government or financial institution to which JBIC has offered a credit line.

Overseas Economic Cooperation Operations Taking Timely Disaster Prevention/Reduction

Measures: Supporting Disaster Prevention/ Reduction Measures in Both Hardware and Software

In the wake of the earthquake off the coast of Sumatra and the tsunami in the Indian Ocean, the Indonesian Government has had a renewed recognition of the importance of anti-disaster measures. JBIC provided an ODA loan totaling ¥16.44 billion for the Urgent Disaster Reduction Project for Mt. Merapi/Progo River Basin and Mt. Bawakaraen to support urgent disaster prevention and reduction measures.

Mt. Merapi is one of the most active volcanoes in the world, erupting every two or three years since 1992. As a result, a large volume of unstable debris has piled up, increasing the risk of debris flow or mudflow. In addition, sand and gravel mining in neighboring areas has caused the elevation of the river bed, environmental problems such as noise and dust, and the destruction of roads by overloaded trucks. The project aims to build a sustainable disaster prevention/reduction system, both in hardware and software, by developing infrastructure for controlling sedimentation and the elevation of the river bed in the Progo River flowing near Mt. Merapi, by establishing a mudflow warning system and by improving controls on sand and gravel mining.

The project also contains a component of rehabilitating the existing infrastructure, including bridges, building sediment control facilities and putting in place a mudflow warning system in the Jeneberang River basin, where a major disaster occurred by the debris flow caused by the collapse of the caldera wall of Mt. Bawakaraeng in South Sulawesi in March 2004.

The project will save lives from disaster, protect public and private property, and serve to promote more stable economic and social activity as well as regional development.



Mt. Merapi is a major active volcano in the world.

THE PHILIPPINES

International Financial Operations

Supporting a Power Project in Project Finance First Loan for Japanese Firms to Acquire the Concession of the Overseas Existing IPP Project

In recent years, there has been an increasing number of business transactions involving acquisition of existing overseas IPP projects¹, as U.S. and European IPP project developers scale back their overseas operations. Japanese firms regard this development as a new business opportunity.

JBIC provided an overseas investment loan totaling US\$100 million in project financing for CBK Netherlands Holdings B.V. (CBKNH), jointly owned by Electric Power Development Co., Ltd. (J-Power) and Sumitomo Corporation. This project finance loan was provided to support CBKNH's acquisition of the concession of the CBK Power Project (total power capacity of 728 MW), located in Laguna Province, Philippines, as the owner and operator. JBIC cofinanced this loan with private financial institutions on a mezzanine basis, with JBIC's guarantee covering political risk² for the portion cofinanced by private financial institutions.

The CBK Power Project is an existing IPP project implemented by CBK Power Company, a special purpose project company which was set up by IMPSA of Argentina and Edison Mission Energy of the United States. The project assets consist of the Caliraya, Botocan and Kalayaan power plants. CBK Power Company constructed/rehabilitated these three plants and, after their completion, is selling the electric power generated by them to the National Power Corporation under an offtake agreement



A facility in the CBK Power Project whose concession were acquired by Japanese firms

1 IPP is an acronym for independent power producer. An IPP builds and operates power facilities on its own and sells electricity to power utilities. 2 Political risk refers to risks associated with governmental interference in currency conversion and transfer, war, and civil war; expropriation, nationalization and expropriatory change in law; and governmental default with a term of 25 years. All the power plants are now operating effectively. After the acquisition, CBK Power Company will be wholly owned by J-Power and Sumitomo Corporation through CBKNH. Both companies are also in charge of operation and maintenance of the power plants through a subsidiary of CBKNH.

This is the first project finance loan JBIC has provided to support Japanese firms in the acquisition of the concession of an existing IPP project. The participation of Japanese firms with advanced technological capabilities in power projects will contribute to the stable supply of electric power in the Philippines and to the development of the Philippine economy.

THAILAND

International Financial Operations

Guarantee for Baht-Denominated Bond Issued by Japanese Affiliate in Thailand: First Local Currency Bond Issue Supported by JBIC's New Guarantee Facility under the Asian Bond Markets Initiative

Japanese firms operating in Asian countries have at their disposal a limited number of funding instruments. Whereas they need to fund their business operations in local currencies to avoid exchange risk, underdeveloped securities markets make it difficult for them to issue local currency bonds. Even in Thailand where securities markets are relatively well developed, Japanese firms with good credit standing do not necessarily have significant name recognition in the local bond market. Thus, as a Japanese governmental financial institution, JBIC is called on to complement their creditworthiness for facilitating their bond issues.

To meet such needs of Japanese local firms, JBIC instituted a new guarantee facility for local currency corporate bonds issued by Japanese affiliates. Under this facility, JBIC provided a secondary guarantee with respect to the primary guarantee by Mitsubishi Corporation for the 3.5 billion-baht (equivalent to ¥10 billion approximately) corporate bond issue of Tri Petch Isuzu Sales Co., Ltd.(TIS), a Thai joint venture of Mitsubishi Corporation and Isuzu Motors.

This guarantee facility constitutes part of the Asian Bond Markets Initiative (ABMI) proposed by the Japanese Government in December 2002. This is the first guarantee JBIC provided under this facility. JBIC is committed to providing positive support for the effective issuance of local currency bonds by Japanese firms in Asian countries, while serving to develop and invigorate their bond markets.

VIET NAM

International Financial Operations

Supporting Japanese Firms' Cement Plant Exports to Viet Nam: For Stable Cement Supply and **Economic Development**

Viet Nam has achieved stable economic growth in recent years and is experiencing a construction boom. Demand for cement has been growing annually, amounting to 23 million tonnes in 2003. Whereas one-quarter of total domestic demand has to be fulfilled by imports today, looking ahead, demand is expected to double by 2010.

Against this backdrop, Viet Nam Construction & Import-Export Corporation (VINACONEX) is planning to construct an integrated cement production plant with an annual capacity of 1.89 million tonnes in Quang Ninh Province. JBIC provided an export loan totaling ¥4.8 billion for VINACONEX in cofinancing with private financial institutions, with guarantee provided by the Vietnamese Government. The loan supports the plant export of Kawasaki Heavy Industries, Ltd. to VINA-CONEX. This is the second export loan JBIC has extended to Viet Nam since 1999.

The loan will not only help bring a stable supply of cement in Viet Nam but also serve toward its economic development. Additionally, it will support the business development of many Japanese firms operating there.



The signing ceremony held with VINACONX

Overseas Economic Cooperation Operations

Supporting Policy and Institutional Reforms for Growth and Poverty Reduction: Improving the Business Environment Based on Japan-Viet Nam Joint Initiative

The share of the poor in the total population of Viet Nam decreased from 58 percent in 1993 to 29 percent in 2002.¹ However, for further poverty reduction, it is essential to enhance measures that reduce disparities in living standards between urban areas and rural areas where the majority of the poor live by implementing appropriate development policy, while sustaining growth. The Vietnamese Government launched the Comprehen-sive Poverty Reduction and Growth Strategy (CPRGS) in May 2002 and has been pushing forward a number of policies and institutional reforms.

JBIC provided an ODA loan totaling ¥2 billion as the Third Poverty Reduction Support Credit to support the implementation of this Strategy in cooperation with the World Bank, the Asian Development Bank (ADB) and other donors. The loan will support reforms in various sectors that the Vietnamese Government is pushing forward in the framework of this Strategy, including in the trade, state-owned enterprise, financial, infrastructure, educational and health care sectors.

This loan was provided after confirming the certain progress of these reforms. Reforms called for in this loan have thus incorporated part of the action plan set forth under the Japan-Viet Nam Joint Initiative, which was agreed upon between the Japanese and Vietnamese Governments in December 2003. The implementation of these reforms will help improve the country's investment climate, thereby contributing to the country's economic growth and poverty reduction.

Overseas Economic Cooperation Operations Building the First Exclusive Highway for Automobiles: Additional Support for O&M and Traffic Safety

The Red River Delta region of northern Viet Nam is experiencing rapid economic growth. Traffic volume in National Highway No. 3 linking Thai Nguyen, an industrial city in the center of this region, to Hanoi, has been increasing 10 percent annually. At present, however, it has just a single lane in each direction, and traffic accidents are frequent due to the traffic volume well above the designed capacity. As a result, it is an urgent issue to construct a new road.

To improve this situation, JBIC provided an ODA loan totaling ¥12.47 billion for the New National Highway No.3 and Regional Road Network Construction Project. The scope of the project is to construct the country's first automobile expressway and improve the related regional roads. This will meet ever growing traffic needs and increase the convenience and safety of local road users, thereby contributing to regional economic development. In addition, improving regional roads passing through poor districts will increase access of the poor to road transport, thus helping social development.

As this is the country's first highway to be constructed exclusively for automobiles, JBIC provides technical assistance for the operation and maintenance of a high speed motorway. Furthermore, in an effort to prevent an increase in road accidents, JBIC will conduct a traffic safety program for the local residents based on the pilot study for knowledge assistance.



A mix of cars, motorbikes and large vehicles on the narrow National Highway No. 3

1 The share of the poor in the total population was an indicator jointly developed by the Vietnamese statistical department and the World Bank. The poor are defined to be the people living under the poverty line. The poverty line refers to the income level corresponding to the consumption of 2,100 kilocalories of food per day plus the costs of non-food items.

of Operations by Region

Profile of JBIC

CAMBODIA AND LAOS

Overseas Economic Cooperation Operations

Improving the Investment Climate in the Greater Mekong Subregion: Support for Telecommunications and Power Infrastructure Development

While Cambodia and Laos constitute part of the Greater Mekong Subregion (GMS)¹, substantial economic disparities remain among GMS including the neighboring countries (such as Thailand and Viet Nam). Thus, their challenge is to advance development in the GMS as an integrated region.

At the Japan-ASEAN Special Summit in December 2003, the Japanese Government pledged assistance for GMS development, and at the ASEAN+3 Summit in November 2004, Prime Minister Koizumi expressed to the leaders of Cambodia and Laos an intention to provide ODA loans to support development in GMS.

To Cambodia, JBIC provided an ODA loan totaling ¥3.03 billion for the Greater Mekong Telecommunication Backbone Network Project (Cambodia Growth Corridor). The project aims to meet increasing demand for telecommunications service and improve the quality of communications in central Cambodia, encompassing the capital city Phnom Penh, by laying down an optical fiber cable 400 kilometer long.



A substation to be expanded by ODA loan (Laos)

To Laos, JBIC provided an ODA loan totaling ¥3.33 billion for the Greater Mekong Power Network Development Project (Lao PDR). The project aims to meet growing power demand in the south-central region, which constitutes part of the East-West Economic Corridor,² by laying down 300-kilometer 115kV transmission lines and constructing substations in the central region, thereby serving to build up a power network in GMS.

The Greater Mekong Subregion comprises Cambodia, Laos, Myanmar, Viet Nam, Thailand and Yunnan Province, China, in the basin of the Mekong River that runs through Indochina from north to south. The GMS extends 2.3 million square kilometers (about six times larger than Japan), and has a population of 250 million (twice more populous than Japan).
The East-West Economic Corridor cuts across Indochina from east to west. It starts from Da Nang in central Viet Nam, the key port for marine transport, passing through south-central Laos and north-central Thailand and reaching Myanmar.

3. SOUTH ASIA

JBIC Operations in South Asia

Japanese interest in India has been growing. The country is seen as a promising trade partner as well as investment destination. JBIC financed Japanese firms for their business development in India. To support sustainable socioeconomic development of the country whose population living in poverty is the world's largest, JBIC provided ODA loans for India's transport, power and other economic infrastructure projects, rural development projects that will benefit the poor and environmental improvement projects, including afforestation and sewerage development projects. Many projects were supported in collaboration with Japanese local governments and Indian NGOs (see p. 45 and 46).

To Sri Lanka, the country striving for peace-building, reconstruction and development, ODA loans were extended. Specifically, they supported small-scale infrastructure development, which will lead to delivery of educational and healthcare services, SME development and capital investment in pollution-abating equipment. Since the areas covered by these projects include Eastern and Northern Sri Lanka where civil conflict has hindered development, "preferential terms for supporting peace-building efforts" were applied to these loans.

An ODA loan supporting poverty reduction efforts being

Loan, Investment and Guarantee Commitments International Financial Operations ¥0.5 billion Overseas Economic Cooperation Operations ¥172.4 billion Bangladesh (6.6%) • ¥11.3 billion Sri Lanka (15.4%) • ¥26.6 billion made by Bangladesh for developing rural infrastructure, such as roads and village markets, in the areas where poverty is

BANGLADESH

Overseas Economic Cooperation Operations

Supporting Rural Development to Reduce Poverty: Community-Participated Workshops Reflect the Desires of Local Populations

Bangladesh has been making a steadfast effort to reduce poverty, with its sights set on achieving the Millennium Development Goals (MDGs).¹ One of the major challenges to achieving the MDGs is the high incidence of poverty in rural areas where almost 80 percent of the population resides.

To support development in rural areas, where a majority of the poor reside, JBIC provided an ODA loan totaling ¥11.35 billion for the Eastern Bangladesh Rural Infrastructure Development Project. The project aims to develop main rural roads and village markets in eastern Bangladesh. Since the target area has substantial rainfall and frequent floods, roads with structures better able to withstand flooding will be constructed to reduce damage caused by natural disasters. The construction of provincial roads connecting urban and rural areas will also help reduce social disparities by providing poor rural residents with access to education and medical services.



Women in the village targeted by the project

prevalent (see below).

¹ The Millennium Development Goals are a set of common goals that combined the UN Millennium Declaration adopted at the UN Millennium Summit in September 2000, which set forth the goals to be achieved by the international community in the 21st century, and various international development goals adopted during the 1990s. They comprise development goals to be achieved by 2015 in 8 areas, including poverty reduction, universal primary education, reduction in infant mortality and securing environmental sustainability.

Profile of JBIC

In this project, community-participated workshops will be held to reflect desires of local populations in drawing up plans to construct and utilize physical facilities. In addition, the project aims to increase employment opportunities for the poor by providing capacity enhancement training for the poor who engage in road maintenance work, as well as occupational training for poor women in partnership with local NGOs.

SRI LANKA

Overseas Economic Cooperation Operations Improving the Living Conditions of the Poor for Reconstruction and Development: Preferential Term for Peace Building Applied for the First Time

Since the Sri Lanka Government and the Liberation Tigers of Tamil Elam (LTTE) agreed to an indefinite ceasefire in February 2002, a number of peace building, reconstruction and development efforts have been undertaken. However, social infrastructure, especially schools and medical facilities, is far from adequate in the aftermath of 20-year civil conflict that caused widespread devastation. Thus improving the living conditions of the poor people is an urgent issue.

To reduce disparities among regions and ethnic groups not only in the conflict-affected regions in northern and eastern Sri Lanka but also across the nation, and to improve the living condition of the poor, JBIC provided an ODA loan totaling ¥11.78 billion for the Small-scale Infrastructure Rehabilitation and Upgrading Project II. The project aims to enable poor people to have access to social services and improve their living standards by



The road was improved in the first phase of the project.

rehabilitating and upgrading small-scale infrastructure in education, healthcare, and rural development.

Since the target regions of the project include areas left behind development due to civil conflict, "preferential term for peace building" which was adopted in FY2004 will be applied to this project.

INDIA

Overseas Economic Cooperation Operations

Supporting the Improvement of Water Quality in the Sacred River Ganges: Raising Public Awareness by Drawing on Japanese Experience and Know-how

Varanasi in Uttar Pradesh is the most sacred place in Hinduism. The city is on the Ganges River, which is revered as the holiest river in India, and every year a vast number of visitors come for religious bathing in the river and sightseeing. However, the present sewage treatment plant is capable of handling only one-third of the sewage generated in the city. As a result, water in the Ganges River is so polluted that concerns are raised over the health risks that it poses to city residents and pilgrims.

To improve this situation, JBIC provided an ODA loan totaling ¥11.18 billion for the Ganga Action Plan Project (Varanasi). Under this project, sewage treatment facilities will be built and rehabilitated, sewer pipes will be installed, and community toilets will be built in slums and at bathing sites. To raise awareness of community residents and government officials on public health, awareness-raising campaigns will be undertaken, including public information activities by using newspaper advertisements and extra curricular programs on public health in schools.

During the preparatory stage of the project, JBIC worked jointly with the Okayama prefectural government, which is active in international cooperation and environmental



Indians bathing in the Ganges as a religious ritual

conservation. In a local seminar held in Varanasi, a presentation was made to the Indian participants on the prefecture's community awareness-raising activities and environmental education for its Lake Kojima Environmental Conservation Program. In partnership with domestic local governments, JBIC is committed to providing assistance that draws on Japanese experience and know-how.



In the local seminar, environmental efforts made by Okayama Prefecture were shared with the participants.

Overseas Economic Cooperation Operations

Supporting Regional Development by Developing Tourism Infrastructure for Buddhist Pilgrimage Sites: Introducing the MICHI-NO-EKI (Roadside Station) System by Drawing on Japanese Expertise and Know-how

The northern Indian state of Uttar Pradesh has an intimate link with the life of the Buddha, embracing four out of the eight major Buddhist pilgrimage sites. These sites form part of a tourism and pilgrimage route known as the Buddhist Circuit. In the northern part of the Circuit, however, road conditions are poor, and inadequate drainage infrastructure causes flooding in these heritage sites and surrounding villages during the monsoon season. This region is also the most impoverished in Uttar Pradesh, which is itself one of the poorest states in India. Thus developing non-agricultural industries has become a major issue on the agenda of this region.

To boost the local economy in the northern part of the Buddhist Circuit by exploiting tourism resources and thereby reduce poverty, JBIC provided an ODA loan totaling ¥9.50 billion for the Uttar Pradesh Buddhist Circuit Development Project. The project consists of developing basic infrastructure, including roads and drainage systems etc., and building visitor centers where tourism information is provided, local products are sold, and tourists can take a rest. In addition to the construction of facilities, programs will be implemented to increase the awareness of local communities about tourism and the preservation of heritage sites and to enable local communities to participate in the planning and implementation of local tourism development.

In partnership with Nara Prefecture (both the government of the prefecture and one MICHI-NO-EKI in the prefecture), which has world-class Buddhist tourism sites, and the National Research Institute for Cultural Properties, Tokyo, JBIC made presentations to community residents on how the MICHI-NO-EKI (Roadside Station)¹ owned and operated by the local community, came into being and its experience. As a result, Japan's MICHI-NO-EKI system is to be incorporated into the visitor center. In order to ensure that tourism will bring maximum benefits to the local community, experts in rural development will be sent to India to offer advice on boosting development in villages and on MICHI-NO-EKI.



The station master of a roadside station in Nara Prefecture conversing with Buddhist monks from India

1 The roadside station is a facility that serves road travelers with three functions: a comfortable stop; an information dissemination center for road travelers and community residents; and the hub of regional collaboration providing linkage to various communities.

4. CENTRAL ASIA AND THE CAUCASUS

JBIC Operations in Central Asia and the Caucasus

Since gaining independence from the former Soviet Union, countries in Central Asia and the Caucasus have set out to develop energy resources, including oil and natural gas, and move forward with marketization. To secure resource supplies to Japan, JBIC financed oil field development in the Azerbaijan territorial waters of the Caspian Sea and provided an export credit line for a commercial bank in Kazakhstan, the country attracting attention from Japanese firms as an important export and investment destination (see below). Furthermore, JBIC signed cooperation agreements with the International Bank of Azerbaijan (IBA), the State Bank for Foreign Economic Affairs of Turkmenistan (TVEB) and the state-owned oil and gas company in Kazakhstan.

Since the majority of economic and social infrastructure in this region was developed during the Soviet era and is now antiquated, JBIC provided ODA loans for the combined cycle power plant project in Armenia and the railway construction project in Uzbekistan. STEP¹ was applied to part of the railway project, enabling it to utilize Japan's advanced technology and know-how (see p. 48).



KAZAKHSTAN

International Financial Operations

Export Credit Line to Private Commercial Banks: Supporting Japanese Overseas Business Operations

With development of its natural resources, such as oil and natural gas whose endowment is second to Russia among CIS countries,² as well as its effort toward a market economy, Kazakhstan has been making remarkable progress in economic development in recent years, with its economy growing 9.2 percent in 2003, and Japanese firms are increasingly focusing their attention on this country as an export and investment destination.

Under these circumstances, JBIC extended an export credit line (p. 39) in cofinancing with a private financial institution, totaling up to US\$30 million to Bank TuranAlem (BTA), one of the leading commercial banks in Kazakhstan.

Reflecting the BTA's active stance toward overseas lending, this credit line is applicable to exports not only to Kazakhstan but also to other CIS countries. In addition, JBIC signed a cooperation agreement with International Bank of Azerbaijan (IBA), the country's largest official financial institution, aimed at IBA's participation in the framework of this credit line. These steps JBIC has taken are expected to contribute to increasing Japanese exports to CIS countries.

¹ Special Terms for Economic Partnership (STEP), set in March 2002 for ODA loans, have been applied to eligible projects since July 2002. STEP aims at promoting development assistance with a distinct Japanese profile through technology transfers to developing countries by drawing on advanced Japanese technologies and know-how. This enables JBIC to apply more favorable loan terms than in ordinary ODA loans.

² CIS countries are comprised of 12 countries out of the 15 constituting republics of the former Soviet Union, with 3 Baltic countries excluded.

ARMENIA

Overseas Economic Cooperation Operations Building the First Energy- and Resource-Saving Power Plant in Armenia: Laying Foundations for Growth through Averting Power Shortage

Many power plants in Armenia were constructed during the Soviet era and have been in operation for more than 30 years. The highly antiquated facilities have eroded their power supply capacity. Whereas national peak power demand stands at 1,177 MW, the current supply capacity is 1,266 MW. The peak demand is projected to reach 1,350 MW in 2008. Thus there is concern that Armenia will face a serious power shortage in the future, and addressing this issue has been high on the country's development agenda.

JBIC provided an ODA loan totaling ¥15.92 billion for the Yerevan Combined Cycle¹ Co-generation Power Plant Project to lay foundations for economic development through a stable supply of power in Armenia. Under the project, a highly efficient gas-fired combined cycle thermal power plant (with a capacity of 205 MW) will be constructed at the site adjacent to the existing thermal power plant on the outskirts of the capital city of Yerevan. This is the first gas-fired combined-cycle power plant to be constructed in Armenia. Aside from that, the new plant will serve as a co-generation plant that supplies heat to neighboring factories and houses. The project will thus save energy and resources, while reducing the emission of air pollutants.

The Caucasus region,² including Armenia, is located in a strategically important corridor that links Europe with Central Asia and is contiguous with Russia and the Middle East. Supporting economic development in Armenia will lead to stability in the neighboring region.



An antiquated power plant in Armenia

UZBEKISTAN

Overseas Economic Cooperation Operations Supporting Railway Transport Capacity

Enhancement with New Railway Construction: Japanese Advanced Technology to Help Build Railway Bridges

Since the railway network in Uzbekistan was constructed during the Soviet era, some of the country's trunk lines connecting various domestic locations have to pass through neighboring countries such as Turkmenistan on their routes. Domestic movement via Turkmenistan has caused problems in railway transport service, as timeconsuming customs procedures and changing locomotives at the frontier stations have made delays almost routine. Thus building a new railway has been on the country's development agenda.

JBIC provided an ODA loan totaling up to ¥16.36 billion for the Tashguzar-Kumkurgan New Railway Construction Project. In this project, a new railway line with a length of 222km will be constructed between Tashguzar and Kumkurgan, and some segments covering 31km of the existing line will be rehabilitated. The construction of the new railway line will enable domestic and cross-border movements without going into Turkmenistan, and thus reduce railway transport costs; curtail transport distance; cut short the time required for crossing borders; increase transport volume; and ensure reliable transport services.

In addition, STEP is applied to the project, since Japan's advanced technology and know-how will be provided for the bridge construction component.



A railway developed during the Soviet era

1 The combined cycle power generation increases thermal efficiency by combining gas turbine-driven power generation, whereby natural gas is combusted and gas expansive power is used to drive a turbine, with steam turbine-driven power generation, whereby the heat recovered from exhaust gases is used to produce steam that drives a steam turbine.

2 The Caucasus region comprises Armenia, Azerbaijan and Georgia.

5. OCEANIA

JBIC Operations in Oceania

To secure stable supplies of energy resources to Japan, JBIC financed oil development in Australia (see below) and imports of energy and mineral resources. Loans were also provided for afforestation projects in Australia and New Zealand. Afforestation projects will not only secure Japan's access to wood chips but also help reduce the atmospheric concentration of carbon dioxide, which is alleged to be a major cause of global warming. These projects are therefore worth noting for environmental conservation.



AUSTRALIA

International Financial Operations

Supporting the Largest Oil Field Development in Australia: For Secure Supply of Energy Resources to Japan

Australia is one of the important sources of energy and mineral resources, such as oil and gas, imported by Japan. An affiliate of Mitsui and Co. acquired part of the interest held by Woodside Energy Ltd., the country's largest independent oil and gas company, in the two blocks of Australia's northwestern offshore oil fields, and is to participate in its oil field development. JBIC provided a loan to support acquisition of the interest as well as oil field development.

The offshore blocks in which the affiliate of Mitsui acquired the interest contain various discovered fields that are yet to be developed. It is expected that their total oil reserves will amount to 300 million barrels, one of largest in the country. The Enfield Oil Development Project where Mitsui is participating will produce approximately 100 thousand barrels a day. This loan will support an energy resource development project by a Japanese firm, thereby contributing to secure stable supplies of energy resources and diversification of their supply sources.



An oil production rig in the offshore Enfield oil field in Australia

6. EUROPE

JBIC Operations in Europe

Following implementation of the Kyoto Protocol, there is growing interest among Japanese firms in Joint Implementation (JI)¹ and greenhouse gas (GHG) emissions trading business in Central and Eastern Europe. JBIC pledged cooperation with the Bulgarian Government and a cooperation agreement with the Romanian Government, as both countries have attracted attention as promising countries for JI projects (see p. 24). JBIC also financed the alternative energy-related project, supporting the establishment of an overseas production base by a Japanese firm with cutting-edge solar cell technology (see p. 51).

As Romania is implementing stricter environmental regulations in time for accession to the European Union, an ODA loan was provided to support installation of pollution abatement equipment at the country's largest thermal power plant. JBIC also provided the first ODA loan to Ukraine in FY2004. Russia has registered robust growth since the economic crisis in 1998. Against this backdrop, an export credit line was provided for a Russian commercial bank to increase bilateral trade. This was in addition to loans to Japanese firms conducting business operations in Russia (see below).

RUSSIA

International Financial Operations Credit Line for the Largest Commercial Bank in

Russia: Supporting Japanese Exports

The Russian economy has been growing at a robust pace since the economic crisis of August 1998. In 2004, real GDP grew by 7.1 percent, and demand for capital investment is expected to increase further in the coming years. It was against this backdrop that Prime Minister Koizumi signed the Japan-Russia Action Plan with President Putin during a visit to Russia in January 2003. The Action Plan called for both sides to examine the possibilities of providing credit based on the credit standing of Russian firms



and banks to help promote bilateral trade and economic activities. The provision of the credit line stands on this Action Plan.

Based on this Action Plan, JBIC provided an export credit line (p. 39) totaling up to US\$70 million for the Savings Bank of the Russian Federation (SBERBANK) in cofinancing with a private financial institution.

This credit line enables SBERBANK to provide long-term loans for Russian firms when they import machinery and equipment from Japan. Since this is a dual currency credit line in which loans are provided, in principle, in yen, but, where necessary, in dollars, it will offer greater convenience for Russian firms and promote their purchases of machinery and services from Japan, thereby helping to increase exports by Japanese firms.

1 Joint Implementation (JI) allows industrial countries that made GHG emissions reduction commitments in the Kyoto Protocol to undertake joint projects with economies in transition (EITs). The investing country may use emissions reduction credits (called emissions reduction units (ERUs)) generated from such projects to meet its own GHG emissions reduction target.

Overview of Activitik in FY2004

perations

Profile of Jarc

HUNGARY

International Financial Operations

First Loan for Overseas New Energy-Related Project: Supporting the Overseas Production of Japanese Firms Possessing Advanced Technology

In Europe, there is increasing momentum for harnessing new energy sources. Germany, establishing a renewable energy law in 2000, and many other countries in Europe have adopted schemes for purchasing the electricity generated by solar power at favorable prices. These moves have expanded the market for solar power generation.

Sanyo Electric Co., Ltd., one of the world's leading manufacturers of solar cells, started to produce HIT photovoltaic modules¹ in 1997 and has been making a focused effort to expand overseas business. In Hungary, which is close to the key German market, the company set up a affiliate, Sanyo Hungary Industrial and Commercial Limited Liability Company (SHG), and started the production of HIT photovoltaic modules from June 2005.

JBIC provided an overseas investment loan totaling 5,224 thousand euros for SHG to finance its HIT photovoltaic module manufacturing project. This is the first loan for new energy-related projects² implemented overseas by Japanese firms, and aims to serve to secure an overseas market for solar cell products for which the Japanese firm has comparative advantage. The loan will also support the improvement of the global environment as one of the way to address global warming.

ROMANIA

■ Overseas Economic Cooperation Operations Installing Flue Gas Desulphurization Facilities: Helping Meet SO₂ Emission Standards as Prerequisite for Joining the EU

Romania has been taking steps forward in the various procedures for realizing accession to the European Union in 2007. Among them is implementing stricter environmental regulations. For example, the existing thermal power plants are required to reduce sulfur dioxide (SO₂) emissions to 400mg/Nm³ by the end of 2011. Those plants that cannot meet this emission standard have to shut down their operations. As the current SO₂ emissions from the country's largest Turceni Thermal Power Plant far exceed the national standards, it is urgent to reduce them if the plant is to continue its operations.

Under these circumstances, JBIC provided an ODA loan totaling up to \$28.75 billion for the Turceni Thermal Power Plant Pollution Abatement Project. The loan supports the project for clearing environmental standards required in the EU with installation of the country's first flue gas desulfurization system at the Turceni Thermal Power Plant. It is an important power plant, accounting for 11 percent of the total power production capacity in Romania in 2003. Should the plant halt operations because it fails to meet SO₂ emission standards, it could deal a serious blow to the domestic power supply. The project will help the plant meet environmental standards and provide stable power supply, thereby contributing to Romania's accession to the EU and economic development in the future.



HIT solar cell modules installed in the Berlin City Gymnasium, Germany (System capacity: 40kW; Design/Construction: Schoenau AG)



The Turceni Thermal Power Plant where the flue gas desulfurization system will be installed

1 The HIT (Heterojunction with Intrinsic Thin layer) photovoltaic cell is a new hybrid-type solar cell composed of a single thin crystalline silicon wafer surrounded by ultra-thin amorphous silicon layers. Its characteristics are: (a) the highest conversion efficiency in the world and high power output; and (b) higher power output in high temperature conditions than conventional single- and poly-crystalline solar cells.

2 Solar power generation is classified into new energy projects as defined in the Law Concerning Promotion of the Use of New Energy legislated by the Japanese Government.

UKRAINE

Overseas Economic Cooperation Operations Supporting the Terminal Expansion for the International Airport: First ODA Loan Extended to Ukraine

The Boryspil State International Airport near the Ukrainian capital Kiev is the country's largest international airport, serving as the gateway to Ukraine. The volume of air travelers handled by this airport grew by an annual average of 15.7 percent from 1998 through 2004, reflecting the eastward enlargement of the EU as well as recovery in the Ukrainian economy. There is thus an urgent need for expanding the international passenger terminal to meet the growing number of air passengers in the coming years. The Ukrainian Government drafted in 2001 the National Comprehensive Program for the Development of Ukrainian Air Transport up to 2010, which set the target of improving services for increasing air passengers.

In line with the Ukrainian Government's air transport policy, JBIC provided an ODA loan totaling ¥19.09 billion for the Boryspil State International Airport Development Project. This project aims to increase the airport's passenger handling capacity as well as improve the convenience and safety of air travelers using the airport facilities by constructing a new international airport terminal building and related facilities.

This is the first ODA loan JBIC extended to Ukraine. The project is expected to generate economic effect by inducing foreign direct investments and tourist visits to Ukraine.



The Boryspil State International Airport is the largest international airport in Ukraine

7. THE MIDDLE EAST

JBIC Operations in the Middle East

JBIC provided loans to secure stable supplies of energy resources to Japan and support Japanese firms' overseas business development as well as participation in overseas projects. Two loans were extended in project financing: one to the fertilizer plant project in Oman and the other to the natural gas-fired combined cycle power generation and desalinization project in the United Arab Emirates. A structured finance loan that enabled lending without a resort to government guarantee financed the export of Japanese pollution abating equipment to Bahrain (see below). The first export credit line was offered to a commercial bank in Turkey against the backdrop of its robust economic performance. This was in addition to a loan provided for promoting Japanese exports to Turkey. JBIC also provided an ODA loan for the subway construction project that links the Asian and European continents to alleviate congestion caused by increasing traffic volume as well as reduce air pollution. In this project, JBIC collaborated with the UNESCO World Heritage Center for protecting cultural heritage (see p. 54).



OMAN

International Financial Operations

Developing Infrastructure in Resource Supplying Country: Increase Opportunities in the Gas Business for Japanese Firms

JBIC provided an untied loan totaling ¥9 billion for the Sultanate of Oman to finance the highway construction project in cofinancing with private financial institutions. Under this project, a 90-kilometer highway will be built between Quriyat and Sur to link the capital city of Muscat with Sur, a city located southeast of the capital. JBIC also provided a guarantee for the portion cofinanced by private financial institutions.

The construction of this highway will facilitate an interchange between the two economic zones, one centered on Muscat and Sohar in the northeast and the other on Sur, thereby helping the country to develop economic and production infrastructure. The Sur area has the country's only LNG export base and is one of the highest priority development areas for Oman, as it is shifting the major thrust of its exports from oil to natural gas to build the nation based on natural gas development. Meanwhile, Japanese firms have long participated in Oman's LNG projects and will likely participate in LNG plant expansion and petrochemical projects in coming years.

Upon completion of the construction, the highway will support such projects by improving transportation infrastructure, thus helping to create new business opportunities for Japanese firms. The project will also lead to stronger ties between Japan and Oman, which is an important economic partner for Japan as a resource supplier.

BAHRAIN

International Financial Operations

First Buyer's Credit for Bahrain: Supporting Environmental Improvement with Exports of Japan's Advanced Pollution Abatement Equipment

The oil and gas sector in Bahrain is the country's largest industry and predominant source of foreign currency earnings, accounting for 75 percent of total exports in 2003. Today there are increasing moves toward stricter environmental regulations across the world, as attested to by the European Union's requirment that the sulfur content of diesel oil be less than 10 ppm from 2009.

Facing such a development, the Bahrain Petroleum Company B.S.C. (BAPCO), the oil company wholly owned by the government, has set out to reduce the sulfur content of diesel oil from the current 500 ppm to 10 ppm, the level that meets environmental standards in industrial countries, by installing desulfurization equipment. The company is thereby aiming to come through tighter environmental regulations and produce higher valueadded oil products.

JBIC provided buyer's credit totaling up to US\$311 million for BAPCO in cofinancing with private financial institutions. The loan financially supported the export of advanced pollution abatement equipment from JGC Corporation, a Japanese engineering contractor, with a view to installing diesel oil desulfurization equipment, etc. for the existing refinery located in Sitrah, eastern Bahrain.

Taking account of the needs of the Bahrain Government, JBIC provided this buyer's credit without government guarantee by structuring a scheme whereby the proceeds from sales of oil products are used for repayment. This first direct loan for Bahrain is expected to help increase foreign currency earnings through enhancing the export competitiveness of the country's oil products and expanding their market, and will ultimately contribute to its economic development.



A pollution abatement facility will be installed in the refinery in Sitrah, Eastern Bahrain

TURKEY

Overseas Economic Cooperation Operations

Supporting the Construction of a Subway that Links Asia and Europe: Japan's Latest Technology Helps Construct the World's Deepest Immersed Tube Tunnel Istanbul is the center of Turkey's commerce and trade. The growing number of motor vehicles in recent years has caused chronic congestion in the city. Vehicle emissions have been largely responsible for increasingly severe air pollution as well. There has been a sharp increase in the daily traffic volume on the two bridges across the Bosphorus, which link the European and Asian sides of Istanbul. There is thus an urgent need for securing a new means of transport.

JBIC provided an ODA loan totaling ¥98.73 billion for the Bosphorus Rail Tube Crossing Project II to improve traffic congestion and air pollution in the center of Istanbul, following an ODA loan provided for the first phase of this project in fiscal 1999.

Under this project, a subway line will be constructed across the Bosphorus Straits. For building the underwater segment, Japan's latest advanced technology and knowhow have been adopted. This included designing the structural strength to withstand an earthquake of magnitude 7.5 on the Richter scale and minimizing water pollution in the strait during the construction work. When completed, this will become the world's deepest (with a maximum depth of 56 meters) immersed tube tunnel.¹

In addition, JBIC worked in partnership with the UNESCO World Heritage Center from the planning stage with a view to protecting cultural heritage. Specifically, studies have been conducted on how to preserve historic buildings affected by subway construction and how to respond when historical sites or archeological ruins are



uncovered during digging, and necessary measures have been recommended to the Turkish side.

The sign board announcing the groundbreaking ceremony for constructing the subway tunnel across the Bosphorus

1 Immersed tube method: A method for constructing underwater tunnels. Tunnel blocks 100 meters long that are built on land are towed to the sea, sunk at the tunnel location, and connected with each other to form an underwater tunnel.

8. AFRICA

JBIC Operations in Africa

JBIC agreed with Algeria's state-owned hydrocarbon company on a framework for providing buyer's credit, as it will support Japanese production plant exports (see below).

An ODA loan for Egypt financed the modernization of the airport serving Alexandria, the country's second largest city, thereby supporting tourism and regional development (see p. 56).

A cooperation agreement signed with the African Development Bank (AfDB) will strengthen JBIC's support for Africa in the coming years.



ALGERIA

International Financial Operations

Framework Agreement on Buyer's Credit with Sonatrach: Supporting Plant Exports from Japan

Sonatrach is a state-owned hydrocarbon company in Algeria and the leading company in the country's oil and gas industry, accounting for more than 90% of Algerian exports. Sonatrach is also the largest purchaser of Japanese production plants in the African region.

JBIC signed a framework agreement on buyer's credit¹ with Sonatrach in July 2004. This framework agreement set a template of Loan Agreement so that JBIC will be able to extend buyer's credit expeditiously to Sonatrach once Japanese firms have obtained machinery and equipment orders from it.

With this framework in place, the timely provision of buyer's credit upon winning orders will help Japanese exporters to enhance their competitive edge against foreign competitors and increase their opportunities for winning plant orders.

Since 1976, JBIC has provided buyer's credits in the aggregate amount of ¥680 billion for Sonatrach. In recent years, however, European and U.S. firms have increased their competitiveness by using similar credit frameworks, which European and U.S. financial institutions agreed to create with Sonatrach. JBIC thus signed this framework agreement so that Japanese firms will be on a level playing field with foreign competitors. The framework will thus financially support Japanese plant exports to Sonatrach, while serving ultimately to promote Algeria's economic development.

1 Buyer's credit is a form of trade credit extended to a foreign importer or financial institution to finance the imports of Japanese equipment or technology. Under the currently agreed framework, JBIC will extend loans directly to Sonatrach to finance its imports of machinery from Japanese exporters.

EGYPT

Overseas Economic Cooperation Operations

Modernizing the Airport in Alexandria, the Country's Second Largest City: Supporting Tourism, an Important Source of Foreign Currency Earnings and Industrial Development

In addition to the historical ruins such as the Valley of the Pharaohs, Egypt has been known in recent years as an extended stay resort on the Mediterranean coast. As a result, foreign tourist visits are forecast to grow at an annual rate of about 10 percent through 2021. And almost 80 percent of the tourists will come by air. In particular, air travelers visiting Alexandria, the second largest city in Egypt after Cairo, and its vicinity are expected to increase from 440 thousand in 2002 to one million by 2014. There is thus a need for improving airport facilities.

JBIC provided an ODA loan totaling ¥5.73 billion for the Borg El Arab International Airport Modernization Project. Under this project, a new air terminal building will be constructed in the Borg El Arab International Airport, located around 40 kilometers southwest of Alexandria. The project will increase the passenger handling capacity of the existing airport as well as improve the convenience and safety of air passengers using the airport facilities.



Supporting capacity enhancement in the Borg El Arab International Airport

Alexandria and its vicinity is the country's trading capital and an area where various industries have developed. Among them are petrochemicals, metal refining, agriculture, which uses fertile soil in the Nile delta, and tourism, which is benefiting from abundant historical ruins of the Ptolemaic Dynasty. Increased passenger handling capacity at the airport will lead to more efficient air transport service to Alexandra and its vicinity, thereby contributing to economic development in Egypt.

9. THE AMERICAS

JBIC Operations in the Americas

JBIC's financing operations for the North American region included a guarantee for the import of aircraft and loans to secure Japan's access to natural resources.

In Latin America, loans to Brazil had a dominant share of the total lending volume. Since Brazil has abundant energy resources, JBIC mainly supported energy-related projects in which Japanese firms were involved. Separately, JBIC provided guarantees for a syndicate loan of Japanese financial institutions (see p. 58). Furthermore, an ODA loan was provided for the sewerage system improvement project that is conducive to better public health in Brazil (see p. 58)

The electric power market in Mexico is seen by Japanese firms as promising for investment. JBIC provided a loan in project financing for the IPP project where Japanese firms are participating. JBIC also supported international operations of Japanese private financial institutions by providing guarantee for their loan to cover the political risk of Mexico.



CHILE

International Financial Operations

Supporting the Development of the Largest Copper Mine in Chile: For Securing Long-Term, Stable Access to Mineral Resources

Japan is dependent on overseas supply for the entire concentrated copper ore used as a raw material for producing copper metal. A total of 4,457 thousand tonnes of concentrated copper ore was imported to Japan in 2004. More than 50 percent of its total import volume comes from Chile. Above all, the Escondida Copper Mine is the largest source of supply, exporting about 700 thousand tonnes of concentrated copper ore to Japan every year as a stable source of raw material for Japanese copper smelters.

The development of the Escondida Copper Mine began in 1988, and JBIC extended several loans to Minera



The Escondida Copper Mine is the largest copper mine in Chile.

Escondida Limitada (MEL), the project implementing company, and Japanese firms participating in MEL, thereby supporting one of the largest copper mines in the world.

In order to make use of the lower grade copper ores, MEL has decided to undertake a project for increasing output, in order to maintain production levels which would otherwise decline as the ore grade diminishes. To secure access to this new source of copper concentrated ore, JBIC provided an overseas investment loan totaling US\$300 million for MEL in cofinancing with private financial institutions.

This loan will lead to securing stable imports of concentrated copper ore and maintaining the quality of the concentrated copper ore supplied to Japan. In addition, given the current tight market conditions for raw materials throughout the world, this loan will help stabilize supplies of copper concentrated ore and copper metal.

BRAZIL

International Financial Operations

Supporting São Paulo's Subway Project: Guarantee for the Loan Provided by Japanese Private Financial Institutions

São Paulo is the center of the Brazilian economy, but it has been plagued by such urban problems as chronic traffic congestion and air pollution. To provide relief to these problems, the state government of São Paulo is constructing Subway Line 4, designed to improve the segmented and inefficient public transport network by connecting the seven existing rail lines (including subways) as well as the bus line network with the new subway line.

To support the financing of the Subway Line 4 Project, JBIC provided guarantee for a syndicate loan totaling up to about ¥28.6 billion extended to the state government by Japanese private financial institutions.



Metro is a reliable transport for the people in São Paulo.

As the Brazilian economy has been stabilized and is growing again, Japanese private financial institutions are showing a strong interest in maintaining or expanding their business operations in Brazil. The guarantee JBIC offered to cover political risk by making use of its guarantee facility will enable these private financial institutions to provide long-term financing in Brazil. Thus it will facilitate the development of Japanese international finance business, while helping Brazil to obtain stable long-term financing for domestic projects.

Overseas Economic Cooperation Operations

Reducing Water Pollution in the Coastal Region of São Paulo: Helping to Resolve Global Water Problems

Although Brazil has the world's richest water resources (in terms of runoffs), its river and sea waters have been increasingly polluted. In the coastal region of the State of São Paulo, the center of the Brazilian economy, untreated sewage discharged into the river and the sea is deteriorating the living environment of the local population ever more seriously each year.

To improve this situation, JBIC provided an ODA loan totaling ¥21.32 billion for the Sanitation Improvement Project for Baixada Santista Metropolitan Region, which will be undertaken by Companhia de Saneamento Básico do Estado de São Paulo (SABESP), the state-owned water and sanitation utility. The project aims to improve sanitation of the local population in the coastal region of Baixada Santista by improving and expanding the sewage system as well as developing an environmental monitoring system, which is indispensable for water quality management.

At the World Summit on Sustainable Development (WSSD) held in Johannesburg in September 2002, the United States and Japanese Governments jointly launched the Clean Water for People Initiative and set forth the policy of supporting the development of sewage systems in urban areas with high population density and limited access to sewerage. The United Nations designated the period from 2005 to 2015 the International Decade for Action, "Water for Life", thereby recognizing the resolution of increasingly serious water problems across the world as the most important issue in the 21st century. In this context, the project is part of efforts to resolve global water problems and will help improve sanitation in Brazil.

of Operation by Region

MEXICO

International Financial Operations

Project Financing for the Power Project Where Japanese Firms Participate: Clean Energy to Contribute to Stable Power Supply

Power demand in Mexico is projected to grow 5.6 percent annually from 2004 through 2013, reflecting the country's robust economic prospects. The Mexican Government has been actively promoting IPP projects (see p. 40) since the Electricity Law was amended in 1992 in an effort to encourage the construction of new power plants and, at the same time, curb additional external debt.

Seizing this opportunity, Mitsui & Co., Ltd., Chubu Electric Power Co., Inc. and Calpine Corporation set up Compănía de Generación Valladolid, S. de R.L. de C.V. (CGV) in Mexico, jointly holding its equity stakes. CGV will construct and operate a natural gas-fired combined-cycle power plant with a capacity of 525 MW based on a BOO scheme,¹ and sell the electric power generated there to the Federal Electricity Commission (Comisión Federal de Electricidad (CFE)) for a period of 25 years.

JBIC provided an overseas investment loan totaling US\$195 million for this project in project financing and in cofinancing with private financial institutions. JBIC also provided guarantees covering political risk of the cofinanced portion.

Japanese firms are viewing Mexico as a promising investment destination and making vigorous investments in IPP projects. JBIC has been supporting Japanese firms participating in the country's IPP projects by providing six loans (including this loan). The plant, which generates power by using natural gas as a clean energy source, will also contribute to a stable supply of power in Mexico.



Construction work in the Valladolid Power Project where Japanese firms have participated

1 BOO (Build, Own and Operate) scheme: A scheme under which a private firm builds, owns and operates a power plant.