



Japan Bank for International Cooperation

JBIC's Activities for Environmental Sustainability



日本の力を、世界のために。
Supporting Your Global Challenges

Supporting Environmental Conservation and Improvement Projects



Environment

Achieving both environmental preservation and economic development is universally recognized as a common challenge for developed and developing countries alike. Given this awareness, there are growing expectations across the world for the implementation of projects which lead to both environmental conservation and economic improvement.

Various efforts in this field are underway throughout the world, including energy-saving projects to increase energy efficiency; renewable energy projects such as solar and wind power generation; projects involving highly efficient, high-performance coal-fired power generation and natural gas-fired combined-cycle power generation that reduce carbon dioxide (CO₂) emissions; urban transportation projects such as railroads that help alleviate traffic jams and air pollution; smart grid projects that supply electricity efficiently using IT technology; and eco-city projects that aim to realize environmentally sustainable cities.

Amid such developments, JBIC not only takes into consideration the environmental and social aspects of individual projects, but is also committed to supporting environmental conservation and improvement projects, such as measures against global warming. For its Global action for Reconciling Economic growth and ENvironmental preservation (GREEN) operations, JBIC focuses its support on efforts to conserve the global environment, including projects that are expected to dramatically reduce GHG emissions, while keeping in mind the global dissemination of Japan's internationally-acclaimed leading environmental technologies.



Photovoltaic Power Generation Project in Jordan

JBIC signed a loan agreement totaling up to USD77 million (JBIC portion; the total amount cofinanced with private financial institutions is USD129 million) in project financing, with Shams Ma'an Power Generation PSC (Shams Ma'an), a Jordanian company invested in by Mitsubishi Corporation (MC), Nebras Power Q.S.C., a Qatari company, and Kawar Investment Company LLC, a Jordanian company.

The project involves Shams Ma'an, invested in by MC, to construct and operate a solar power plant in Ma'an Governorate, Jordan, and selling the electricity to the National Electric Power Company in Jordan for 20 years. Demand for electricity in Jordan is growing on average 7% per year due to the country's economic growth, and increasing power

generation capacity has become an urgent issue. Jordan is also promoting the development of renewable energy, including photovoltaic energy, to diversify its electric power sources and enacted a renewable energy law targeting developing approximately 1,600 MW of renewable energy by 2020. This project is in line with the policy of the Jordanian government and is expected to be an important power supply source originating in renewable energy in Jordan.



Project Financing for First Offshore Wind Power Generation Project

JBIC signed a loan agreement totaling up to GBP172.5 million (JBIC portion) in project financing, for an offshore wind power generation project in Great Britain.

In this project, Marubeni Corporation (Marubeni) has established WMR JV Investco Limited (WMR) jointly with a British company, Green Investment Bank Plc (GIB), and, through WMR, acquired a 50% (of which Marubeni accounts for 25%) stake of an offshore wind power generation company, Westernmost Rough Limited in Great Britain, owned by DONG Energy Wind Power A/S, which is, in turn, a wholly-owned subsidiary of the Danish company, DONG Energy A/S (DONG), the world's largest offshore wind power generator. Under this arrangement, WMR will construct and operate, jointly with DONG, the Westernmost Rough Offshore Wind Farm located about 8 km off the coast of Yorkshire and sell the generated electric power.

In European countries, including Great Britain, large-scale offshore wind power generation projects have been increasingly developed, and intense competition for obtaining concessions are raging among a number of foreign companies. Given these developments, JBIC's support for the

long-term overseas projects of Japanese companies by providing Pound Sterling-denominated long-term loans will reduce the exchange rate risk of foreign currency borrowings by project implementers, and contribute to maintaining and strengthening the international competitiveness of Japanese companies. This is the first joint project between the Japanese and British policy-based financial institutions, and it not only strengthens cooperative relations between the two countries, but also establishes a firm foothold for Japanese companies to participate in the future British renewable energy and infrastructure projects whose investment opportunities are expected to further increase.



Supporting Environmental Conservation and Improvement Projects



Supporting Acquisition of Interest and Development of Oil Field by Japanese Company Utilizing Its Large-Scale Carbon Capture Technology



JBIC signed a shareholders' agreement with a US subsidiary of JX Holdings, Inc. to invest a maximum of USD90,566 thousand to

acquire preferred shares of JX Nippon Oil Exploration (EOR) Limited (JX EOR).

In this CO₂-EOR (Enhanced Oil Recovery) project, a carbon capture system is to be constructed at the W.A. Parish coal-fired power plant in Texas owned by a subsidiary of a US company, NRG Energy Inc. (NRG). CO₂ removed from the flue gas generated from this power plant will be pressure injected into the West Ranch oil field on the coast of the Gulf of Mexico to increase its crude oil recovery. JX EOR is participating in this

project by acquiring a 50% equity stake in a US company, Petra Nova Parish Holdings (PNPH), and holds a 25% interest in the West Ranch oil field, which enables it to acquire the disposal right of produced crude oil commensurate with the interest it owns. This equity participation will partially fund the capital required for the acquisition of the interest and procurement of plant facilities.

This project plans to pressure inject CO₂ into the oil field from the 4th quarter of 2016 to increase daily production to an average of 12,000 barrels (average production volume during the project period) from the 500 barrels of its current level of crude oil production. In addition, CO₂ emissions into the atmosphere from the W.A. Parish coal-fired power plant will be reduced by 1.6 million tons annually, and at the same time, the project will enable additional crude oil production from the existing oil field. Thus, this project is expected to contribute to both mitigating the impact on the global environment and increasing the production of energy resources.



Rajamandala Hydro Power Project in Indonesia

JBIC signed a loan agreement, in project financing, totaling up to approximately USD66 million (JBIC portion) with PT. Rajamandala Electric Power (REP), an Indonesian company invested in by The Kansai Electric Power Co., Inc. (KEPCO), to finance the Rajamandala Hydro Power Plant Project.

This project involves the construction and operation of a run-of-the river hydro power plant with a capacity of 47 MW located in Rajamandala on Citarum basin, Cianjur Regency, West Java Province, Indonesia.

REP obtained exclusive development rights from the Ministry

of Energy and Mineral Resources of Indonesia in 2007, and will conduct construction work with a

plan to complete the construction and commence operation by 2017 and sell the electricity produced to PT. PLN (Persero) for 30 years. This hydro power plant will contribute to the reduction of CO₂ emissions utilizing renewable energy, which is the effective head between two existing dam-type power stations, drawing the discharged water from the dam on the upper stream.



Supporting Renewable Energy Projects in Sub-Sahara African Countries through Credit Line

JBIC has signed an untied loan agreement for setting up a credit line totaling up to USD250 million (of which JBIC's portion is USD125 million) with The Standard Bank of South Africa Limited (SBSA), a commercial bank in South Africa. The credit line is cofinanced with Mizuho Bank, Ltd. (lead arranger), with JBIC providing a partial guarantee for the cofinanced portion.

This Credit Line is intended to finance, through SBSA, environment-related businesses that use renewable energy such as photovoltaic and solar thermal power generation in Sub-Sahara African countries as part of GREEN operations.

SBSA is the largest financial group in Africa by assets, operating in 20 countries on the African continent. It actively

supports renewable energy businesses, and this loan is expected to contribute to reducing greenhouse gas emissions in the region. This is also consistent with "ACE: Actions for Cool Earth" announced by the Japanese government in November 2013.



GREEN Operations

JBIC launched "GREEN" (Global action for Reconciling Economic growth and ENvironmental preservation) operations in April 2010. Previously, JBIC's financing operations had centered mainly on projects directly aiming to maintain and strengthen the international competitiveness of Japanese industries, such as projects in which Japanese companies' investments and machinery/equipment exports are ensured. Accordingly, projects dedicated solely to preservation of the global environment were not eligible for JBIC support until then. Under the GREEN operations, JBIC provides support to finance projects seeking to preserve the global environment, such as those that materially reduce emissions of green-house gases (GHG), while taking account of propagating advanced Japanese environmental technologies across the world.

Promoting the overseas business having the purpose of preserving the global environment, such as preventing global warming



Eligible Entities:

Foreign governments, governmental agencies or local governments, public enterprises such as utilities operating closely with their government, foreign financial institutions, and multilateral institutions.

Eligible Projects:

1. Favorable impact on preservation of the global environment, such as significantly reducing GHG emissions.
2. Accept J-MRV* process on the effect of the environmental preservation. (e.g. energy efficiency improvement, renewable energy, etc.)

*JBIC's original methodology for Measurement, Reporting and Verification

Partnerships and Knowledge Sharing in Environmental Sector



Communication

Environment-related projects are expected to be implemented in many places across the world with the aim of realizing global environmental conservation and a low-carbon society. As such expectations increase, JBIC supports overseas business deployment by Japanese companies as well as efforts being made by foreign governments in this field, not only through financing but also by sharing information and knowledge by holding seminars and participating in relevant events. JBIC also simultaneously forms close partnerships with foreign governments and government agencies, domestic prefectural and municipal governments, and other stakeholders both in Japan and overseas.



MOU with Nacional Financiera, S.N.C., I.B.D. (NAFIN) of Mexico

JBIC signed a memorandum of understanding (MOU) with Nacional Financiera, S.N.C., I.B.D. (NAFIN) of Mexico, in the presence of Prime Minister of Japan H.E. Shinzo Abe and President of Mexico H.E. Enrique Peña Nieto. NAFIN is a governmental financial agency that supports mid-tier enterprises and small and medium-sized enterprises (collectively SMEs) and renewable energy and energy efficiency projects in Mexico.

The MOU aims to strengthen the exchange of information and views on the manufacturing sector of local SMEs and the environmental sector such as renewable energy projects in Mexico. Since the change of government at the end of 2012, the Mexican government has been making efforts toward structural reform in a number of sectors, aiming at the improvement of the Mexican economy's productivity by

directing NAFIN to expand its loans to local SMEs and targeting raising the ratio of power generation by renewable energy to 35% by 2024 under its Energy Reform, thereby expressing active efforts in this sector. Through this MOU, it is expected to promote business opportunities of Japanese and Mexican companies in those sectors with the collaboration between NAFIN and JBIC.



MOU with Ministry of New and Renewable Energy, Government of India

The Indian government has set a numerical target for reducing GHG emissions per unit of gross domestic product (GDP) to 20-25% below 2005 levels by 2022.

Taking the opportunity of the official visit of Prime Minister of India H.E. Narendra Modi to Japan, JBIC and the Indian Ministry of New and Renewable Energy concluded an MOU on the cooperation and exchange of information to promote renewable energy projects in India. The main objective of the MOU is for JBIC to exchange information and opinions with the

Indian Ministry of New and Renewable Energy and to promote renewable energy projects by leveraging Japanese companies and their latest technologies.

Given the projection that demand for electricity in India will remain strong, active efforts are being made to develop renewable energy in order to enhance electricity generating capacity and to diversify energy supply sources. The MOU is also expected to contribute to the promotion of project development in the renewable energy field in India which makes use of Japanese companies' technologies.

MOU with ADNOC of UAE on Cooperation in Environmental Sector



JBIC Guidelines for Confirmation of Environmental and Social Considerations

Growing interest in environmental conservation has led to a worldwide trend toward more rigorous environmental regulations. There are more than a few cases, especially in overseas projects, in which insufficient risk management of possible environmental and social impacts has seriously affected project implementation or undermined its social reputation.

In conducting these operations, JBIC confirms whether the borrower has made appropriate consideration for local communities and the natural environment in all the JBIC financed projects based on the "Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations" (Guidelines).

The Environmental Guidelines set out the procedures, criteria, and requirements that JBIC- financed projects must meet in confirming environmental and social considerations. When JBIC judges that the project proponents have not made appropriate environmental and social considerations, it will encourage them to take remedial measures. If appropriate environmental and social considerations have not been taken, JBIC may decide not to extend funding.

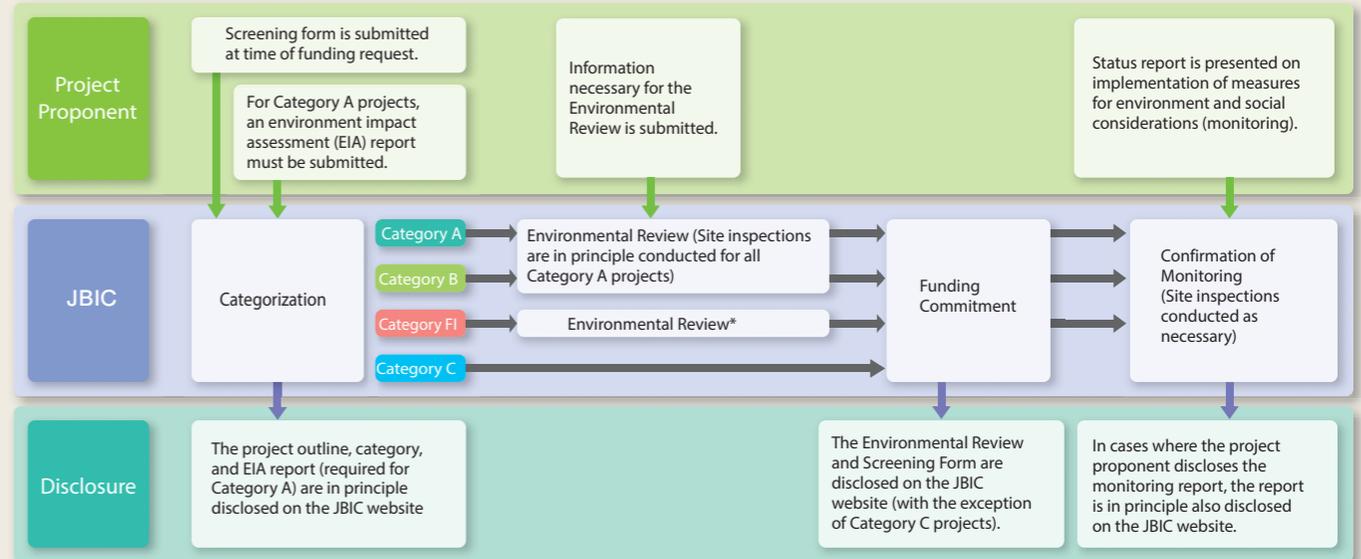
Process for Revising Environmental Guidelines

The Environmental Guidelines set forth that a comprehensive review should be conducted within five years of their enforcement and revisions may be made as needed. In 2013, four years after the Environmental Guidelines came into effect, JBIC started to work on amending the Environmental Guidelines, and, after announcing them to the public, established the newly revised Environmental Guidelines in January 2015.

In order to ensure a highly transparent and open process for amending the Environmental Guidelines, JBIC held a total of 11 consultation meetings in which experts and parties from various entities including opinion leaders, representatives from NGOs, industry and government departments and agencies participated, from December 2013 through November 2014, making it possible to exchange opinions regarding the amendments. After a public comment period regarding the proposed amendments, the current Environmental Guidelines were established in January 2015 and came into effect in April of the same year.

Procedure for Confirmation of Environmental and Social Considerations

Prospective projects are screened prior to funding, and classified into categories according to the degree of potential environmental impact. An Environmental Review is then conducted to verify that the environmental and social impacts have been considered in a proper manner. After funding has been approved, projects are monitored to assess the actual impact.



* For Category FI projects, JBIC confirms through the financial intermediary that the proper environmental and social considerations indicated in the Environment Guidelines have been followed for the project.

- Category A: Project with the potential for a serious and adverse impact on the environment.
- Category B: Project with the potential for an adverse impact on the environment, but less than that of Category A projects.
- Category C: Project with the potential for minimal or no adverse impact on the environment
- Category FI: Project for which JBIC provides funding to a financial intermediary, and after acceptance of JBIC funding, the financial intermediary selects and conducts screenings for specific subprojects, in cases where subprojects cannot be determined prior to acceptance of JBIC funding, and where such subprojects are anticipated to have an impact on the environment.



Objection Procedure

In October 2003, JBIC introduced procedures to submit objections for the purpose of ensuring the compliance of the Environmental Guidelines by internally creating the position of the Examiner for Environmental Guidelines (hereafter the "Examiner"), who receives requests to raise objections with respect to JBIC-funded projects from the residents in developing countries. In cases where such a request is submitted, the Examiner will conduct an investigation into the matter from an independent and neutral position, and report its findings to the Executive Committee of JBIC, while trying to resolve the problem by encouraging dialogue between the parties concerned.

Profile of JBIC Japan Bank for International Cooperation

The Purpose of JBIC

JBIC is a policy-based financial institution wholly owned by the Japanese government, which has the objective of contributing to the sound development of Japan and the international economy and society, by conducting financial operation in the following four fields:

- Promoting the overseas development and securement of resources which are important for Japan
- Maintaining and improving the international competitiveness of Japanese industries
- Promoting the overseas business having the purpose of preserving the global environment, such as preventing global warming
- Preventing disruptions to international financial order or taking appropriate measures with respect to damages caused by such disruption

JBIC Corporate Philosophy

Positioned at the crossroads of global business opportunities, JBIC is opening new venues to the future for the Japanese and global economy

Hands-on Policy

Pioneering new value by participating at the forefront of overseas project development, and by engaging proactively in projects from the early stages

Customer-1st Approach

Offering customers one-of-a-kind solutions by adopting their perspectives and integrating their views into policy development

Forward-looking Action

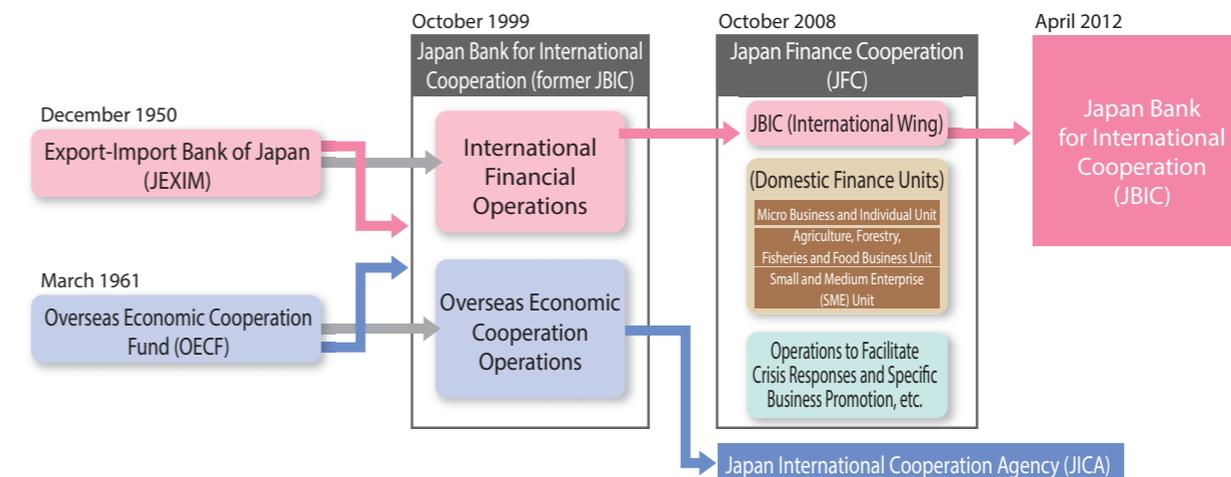
Contributing to the sustainable development of Japan and the world as a whole by deploying highly professional skills, with a view to realizing a secure and affluent future society

Corporate Slogan

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Supporting Your Global Challenges

History

Japan Bank for International Cooperation (JBIC) was established on April 1, 2012, in accordance with the Japan Bank for International Cooperation Act, which was promulgated and came into effect on May 2, 2011.



Profile

Name..... Japan Bank for International Cooperation (JBIC)
 Office 4-1, Ohtemachi 1-chome, Chiyoda-ku, Tokyo 100-8144, Japan
 Capital* ¥ 1,391.0 billion (wholly owned by the Japanese government)
 Outstanding Loans and Equity Participations* ¥14,693.0 billion
 Outstanding Guarantees* ¥ 2,572.3 billion
 * As of March 31, 2015

