JBIC Today

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Special Feature Global Changes to LNG Value Chain

History of Japan's LNG development and JBIC's Support

Through their participation in upstream gas field developments and LNG plant construction projects over the last 50 years, Japanese companies have, with JBIC as a supporting partner, achieved a stable long-term supply of LNG for Japan.

Yamal LNG Project

- A project in the Yamal Peninsula, Russia (annual production capacity: 16.5 million tons/3 trains).
- The purpose of the project is to sell LNG to Asia and Europe through the Northern Sea Route. JBIC provided export credit project financing for the construction of the LNG Plant developed by Japanese engineering companies (December 2016)

Sakhalin II LNG Project

- A project in Sakhalin, Russia (annual production capacity: 9.6 million tons/2 trains
- The first LNG project in Russia. This project contributes to diversifying the sources of LNG supply for Japan, which had previously relied heavily on suppliers from South East Asia
- JBIC provided project financing loans to support this project (June 2008).

Qatargas LNG Project

- A project in Ras Laffan Industrial City, Qatar, consisting of four projects (annual production capacity: 41.1 million tons/7 trains in total)
- Including other projects, Qatar has a total LNG production capacity of 77 million tons, which makes it among the largest LNG producers in the world.
- related infrastructure, in Qatar (since March 1994).

Malaysia LNG Project

- A project in Sarawak State, Malaysia, consisting of four projects (annual production capacity: 27.8 million tons/9 trains in total)
- Japanese companies are involved in these projects in various capacities from upstream to downstream. JBIC provided a wide range of financial support to these projects. (since April 1980).

Brunei LNG Project

- A project in Brunei (annual production capacity: 7 million tons/5 trains). The first LNG investment made by Japanese companies.
- JBIC's first loan to an LNG project (August 1970).

Indonesia LNG Proiect

- Project in East Kalimantan State, Indonesia, consisting of two projects (annual production capacity: 28.7 million tons/14 trains)
- The first LNG project in Indonesia. The Indonesian national oil company led this project alongside Japanese companies who participated through a joint venture company.
- JBIC provided a wide range of financial support to these projects. (since June 1974)

• JBIC fully supported the construction of the LNG value chain, and

PNG LNG Project

- An LNG project located in Papua New Guinea (annual production capacity: 6.6 million tons/2 trains)
- This project is Papua New Guinea's first LNG Project and contributes to diversifying the sources of LNG supply for Japan.
- JBIC provided project financing loans to support this project (December 2009)

Cameron LNG Project/Freeport LNG Project

- Projects in Louisiana, United States (annual production capacity: 12 million tons/3 trains) and in Texas (annual production capacity: 4 64 million tons/1 train)
- These are the first projects to provide for committed long term LNG offtake to Japan from the continental United States. These projects contribute to diversifying the sources of LNG supply for Japan.
- JBIC provided project financing loans to support these projects (August & October 2014).

Wheatstone LNG Project

Equatorial Guinea LNG

- A project in the State of Western Australia, Australia (annual production capacity: 8.9 million tons/2 trains)
- Following the Great East Japan Earthquake, JBIC supported this project by providing both loans and equity investments with the aim of establishing a stable LNG procurement arrangement for Japan (July 2012).

North Western Shelf LNG Project

- A project in the State of Western Australia, Australia
- (annual production capacity: 16.3 million tons/5 trains) • JBIC's first project finance transaction (since March 1986)

Ichthys LNG Project

- A project in Darwin, Northern Territory, Australia (annual production capacity: 8.9 million tons/2 trains)
- The first large-scale LNG project led by a Japanese company acting as the project operator. JBIC supported this project by provision of its largest ever project financing loans (December 2012).

Contributing to Japan's Energy Security

Japan first imported LNG in 1969, 50 years ago. LNG stands for "liquefied natural gas", which is natural gas cooled down to its liquid form at -162 °C. LNG is a clean energy source that contains almost no harmful substances or pollutants, such as sulfur oxide, and produces lower CO₂ emissions during combustion than oil or coal. LNG has now established itself as one of Japan's primary energy sources.

However, back in the 'oil heyday' of 1969, there were few countries that used LNG as an energy source. Furthermore, to introduce LNG into a country, it was first necessary to spend several tens of billions of yen on the construction of specialized LNG vessels and receiving terminals and, in addition, the construction of an LNG plant in a country that produces natural gas would cost approximately 1 trillion yen at the time.

Nevertheless, from the perspective of energy security, securing an alternate energy source to oil and coal was a very important mission for Japan, which was facing increasing energy requirements following a period of high economic growth but lacked domestic energy resources to meet such demand.

JBIC (formerly, the Export-Import Bank of Japan) has been supporting LNG projects since its involvement in the Brunei LNG project in 1970. That was a project to develop LNG infrastructure in Brunei, including construction of the LNG plant and the piers for docking the LNG vessels.

Following the Brunei LNG project, JBIC broadened the scope of its support not only to cover upstream projects in the LNG value chain, such as gas field development and construction of LNG plants, but also to the development of downstream infrastructure for marine transportation, such as by providing loans for the procurement of LNG vessels.

Meanwhile, in 1986, in response to the increasing financing requirements for large-scale LNG projects, JBIC provided its first project finance loan to the North Western Shelf LNG project located in Western Australia.

Since then, JBIC has continued to provide financing to support projects that contribute to the stable longterm supply of LNG to Japan. Such projects include the Ichthys LNG Project in Australia - the first large-scale LNG project involving a Japanese operator - and the Cameron LNG and Freeport LNG Projects, which produce LNG from U.S. shale gas-for export back to Japan.

Marking the 50th anniversary of the commencement of LNG imports to Japan, the LNG business has entered a time of change. This can be seen in the shift in focus to the development of integrated gas value chains including power plants and related facilities, and the flexibility now being included in recent LNG sale and purchase agreements. In line with such changes, the role that JBIC is expected to play in the LNG market is also changing.

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Special Feature Global Changes to LNG Value Chain What Role Should JBIC Play in this Turning Point for the LNG Market?

Since Japan began importing LNG in 1969, it has driven the LNG market as a major consumer. However, 50 years have now passed and the LNG market is facing dramatic changes. This article considers what actions should be taken by Japanese companies, and how JBIC's missions should respond, in relation to this changing LNG market.

Japan has a significant presence in the LNG (liquefied natural gas) market as the world's largest buyer, with imports of over 80 million tons of LNG annually. However, 50 years have passed since Japan first began to import LNG and the LNG market is facing



HAMAMATSU Masayuki **Director General Oil and Gas Finance Department Energy and Natural Resources Finance Group**

significant changes.

First of all, there is the issue of global warming. Amid increasing global focus on CO₂ reduction, natural gas is gaining more attention as a clean energy resource because it produces less greenhouse gases than oil and coal. In particular, China has been promoting a shift from coal to natural gas in response to its serious air pollution issues and, as early as the beginning of the 2020's, is expected to overtake Japan as the world's largest LNG importer.

Even countries that produce their own natural gas such as the Philippines, Bangladesh and Vietnam have started to increase their demand for imported LNG due to declines in their domestic LNG output. As an energy source that is seen to support rapid economic growth, there is an increasing demand for natural gas, particularly in Asia. This has led to rapid increases in the number of LNG importing countries over the last few years.

It is also noteworthy that LNG supply sources are becoming more diversified. By reinforcing its LNG production facilities, Australia (Japan's largest LNG export partner) has increased its output of LNG at a pace that will overtake Qatar, the largest LNG exporter in the world. In addition, the shale-gas production that was developed in the United States in the late 2000s has now started to come onstream and exports of such shale-gas derived LNG are increasing. Finally, LNG plants in the Arctic Ocean, which were technically difficult to develop, have now commenced their operations and we are seeing increased endeavors to develop LNG in regions that have not previously had LNG production facilities, such as Mozambique in Africa.

Requiring more flexibility in LNG contracts

The entry of new LNG importing countries and new LNG suppliers into the LNG market has also brought changes to the approach to LNG sale and purchase agreements.

In the past, LNG sale and purchase agreements were based on long-term contracts with destination clauses and oil-linked pricing. Traditionally, stable long-term contracts were desirable for both LNG producers, who needed assurance that they would be able to recover their large capital investment, and LNG consumers, who needed to secure a stable supply of natural resources.

Recently, however, LNG sale and purchase agreements are much more diversified, as demonstrated by the increase in spot and short-term arrangements, removal of destination clauses and the acceptance of a range of LNG pricing indices. There are several reasons driving these changes. With the liberalization of the electricity and gas industries in Japan and Europe (which are large LNG customers), it is no longer sufficient to focus only on ensuring a stable supply of natural gas, but flexibility with respect to pricing and transaction volume has also become an important consideration. In addition, the expanded size of the LNG market as a result of the increased demand for LNG in emerging countries has enabled more forms of trading arrangements to become viable. Producers, mainly oil majors, are seeking to diversify their portfolio of trading contracts in anticipation of an increased demand for natural gas in future. Finally, as the United States expands its exports of the shale gas-derived LNG, the number of LNG contracts linked to Henry Hub, which is the leading index for U.S. natural gas, is increasing.

The LNG market is changing significantly from a traditional market led by a small selection of large buyers such as Japan, South Korea and Taiwan.

Finding a way forward with the new LNG business

Looking at Japan, annual LNG imports peaked at 89 million tons in 2014, but the volume has remained flat at just-over 80 million tons, or has been slightly decreasing, since then. As Japan's population is expected to decrease in the future, it does not seem likely that Japan's LNG demand would grow in the same manner as it did in the past.

Conversely, in anticipation of an increased global demand for LNG, oil majors have been expanding their LNG businesses more than ever and Asian companies, particularly Chinese companies, have been purchasing more LNG than ever. If this situation continues, Japan could lose the LNG market position that it has built up over the last 50 years, which may raise concerns about the stability of the supply of LNG to Japan.

Accordingly, it is extremely important for Japanese companies to proactively participate in new LNG businesses, mainly in Asia where the demand is surging, in order to maintain Japan's presence in the LNG market.

In emerging countries in Asia, LNG demand is expanding but they do not have a well-developed infrastructure to support the full gas value chain, such as LNG receiving terminals for receiving and regasifying the imported LNG, power generation facilities to utilise the gas stored in those terminals and infrastructure networks to deliver gas and power to the end-users. Utilizing technology and know-how across the gas value chain that has been cultivated over the last 50 years, Japanese companies can actively participate in the development of the entire gas value chain, from gas exploitation, LNG liquefaction facilities (production), transportation, receiving terminals, all the way to end-user gas supply. This not only helps Japan to maintain its presence in the LNG market to secure supply of natural resources, but also creates more business opportunities for Japanese companies to utilize their competitive advantages.

Providing flexible support for new LNG contracts

Due to concerns around factors such as country risk, it is difficult for private companies to develop projects in emerging countries without some governmental, or multilateral, support. Accordingly, one of JBIC's major challenges is to structure the financing for such projects in such a manner as to develop infrastructure for building the gas value chain in emerging countries, particularly in Asia and to respond to the diverse range of LNG transactions types.

Japan cannot maintain its presence in the

* FSRU: Floating Storage and Regasification Unit. FSRU is an offshore vessel that includes all systems to enable LNG to be received, stored and regasified offshore

LNG market if it focuses only on its domestic supply. Accordingly, JBIC proactively supports the establishment of gas value chain infrastructure by taking a flexible approach to new financing structures. The "Jawa- 1 Project" is one example of these initiatives.

This project is being developed in the West Java Province of Indonesia, as an integrated 'Gas to Power' project combining both a gas-fired power plant and its connected gas facilities within a single project structure. In other words, the project will construct, own and operate both a FSRU (Floating Storage and Regasification Unit)* and a combined cycle gas fired power plant. An FSRU can be constructed at lower cost and in a shorter period than an onshore LNG receiving terminal.

JBIC has a wealth of experience in supporting the development of stand-alone projects, such as power plants, but it is un precedented for a Japanese company to operate both a power plant and the gas-related facilities together as a single project. In this regard, it is a groundbreaking project. JBIC intends to proactively support projects where Japanese companies are able to play a major role in building gas value chains overseas and to expand their presence in the LNG market.

JBIC also supports the development of LNG projects in the United States to help Japanese companies establish gas value chains. Specifically, we are financing the Cameron LNG project in Louisiana and the Freeport LNG project in Texas. These projects are each based on the new approach to LNG contracts, under which a U.S. natural gas index is used as a pricing benchmark instead of oil linked prices and the destination clauses have been removed. We accommodated this new approach to LNG contracts to respond to the changing LNG market, as explained earlier.

The LNG market will continue to change, and Japanese companies will also need to adjust their business model and adapt accordingly. JBIC intends to flexibly respond to such changes in the LNG market and to seek new opportunities to contribute to the stable procurement of LNG and the involvement of Japanese companies in the LNG market.



Special Feature Global Changes to LNG Value Chain

JBIC Interview

Securing Stable Energy Supply and Creating International LNG Market!

JERA's efforts towards expanding the LNG Market

importing LNG. What is the current situation of the LNG market surrounding Japan, the largest LNG importer in the world?

Mr. Kani: In the past 10 years, LNG demand has increased by 20% in Japan, but the demand in the overall Asian market has climbed by over 100%. Japan's presence has relatively declined in the global LNG market, but LNG is still a vital energy source in Japan's energy policy.

I would also like to emphasize that LNG is compatible with renewable energy. For example, solar power generation rapidly loses its output after sunset. On the other hand, thermal power generation using LNG can adjust its output as if you were turning the switch of a gas stove, so we can complement the output shortage of renewable energy. Obviously, thermal power generation using LNG is important considering the energy mix target by fiscal year 2030 set by the Japanese government.

----- What should Japan do now to expand the LNG market?

Mr. Kani: Given the possibility that short-term and medium/long-term LNG demand may fluctuate greatly, it is important to procure LNG more flexibly. In other words, we need to create an LNG market where buyers can purchase LNG at the appropriate price when they need it. We must also improve industry's practices that restrict the destination of shipments of LNG.

It is also important to boost the demand of LNG itself. To this end, we are working on Gas-to-Power projects.

- Could you share JERA's initiatives to expand the LNG market including participation in Gas-to-Power projects?

Mr. Kani: "Gas-to-Power" refers to a project for an integrated development ranging from LNG procurement to the construction of LNG receiving terminals and gas-fired power plants. As large-scale development entails technical hurdles, this project is not so simple. However, we believe we can support this integrated LNG development project based on our solid experience in Japan, and would like to embark on Gas-to-Power projects in foreign countries.

In addition to Gas-to-Power projects, we are also committed to investing in overseas infrastructure business. For example, we have invested in a local power producer in Bangladesh. Moreover, we have decided to participate in separate new gas-fired power generation projects in Bangladesh. We would like to expand these activities into other Asian countries.

- What is important when promoting Gas-to-Power projects?

Mr. Kani: Large investment is necessary for



KANI Yukio **Corporate Vice President, Director Chief Operating Officer, Business Development** Department JERA Co., Inc.

developing Gas-to-Power projects. Even large companies such as major resource companies have difficulty in implementing these projects single-handedly. Therefore, joint development with other companies from both within and outside of Japan is important.

In order to collaborate with major overseas companies, we plan to speed up decision-making and enhance our organizational diversity such as through gender, age and nationality.

- What are your expectations for JBIC? Mr. Kani: In the past, I have worked with JBIC in launching an LNG transportation business. At that time, as we had no experience

Building LNG Value Chains in Emerging Countries to Cover the Whole Process from Procurement to Fund Collection

Creating a stable supply mechanism in South Asia with a view of 20-40 years of growth in the LNG market

----- What do you think of the current LNG market and its future development?

Mr. Nishizawa: LNG transaction volume has increased during the past 50 years, reaching close to 350 million tons per annum. We expect the volume will double to about 700 million tons in the next 20 years.

Some people see LNG just as a bridge fuel towards renewable energy and cast doubt on the drastic growth of the LNG demand. However, both solar power generation and wind power generation have the problem of intermittency. This problem cannot be solved without a drastic technological innovation such as storage batteries. Still, it is currently difficult to foresee that such remarkable progress will occur immediately. In addition, according to one provisional calculation, as much as \$5 trillion of investment is required for covering the entire US electricity demand solely by renewable energy. Taking these situations into account, We foresee that LNG demand will grow for over 20 years from now.

drawing amid the robust increase of LNG demand?

Mr. Nishizawa: We are focusing on three points: (1) mitigating environmental impacts; (2) securing competitive LNG; (3) achieving stable supply of LNG. Particularly, in terms of mitigating environmental impacts, LNG is relatively environmentally-friendly among fossil

fuels, but still emits about 3 tons of CO2 per 1 ton of LNG in the whole value chain from gas development to liquefaction, transportation, and power generation. I think corporations involved in the LNG business should take on responsibility for reducing such negative impact on environment by utilizing CCS (Carbon Capture and Storage) and CCU (Carbon Capture and Utilization) for capturing CO2

emissions.

In light of these aspects, our major strategy is to achieve a stable supply of LNG to the Japanese market and then cultivate overseas demand. To be specific, we are focusing on not only China but also South Asia where the demand is expected to surge. Bangladesh and Pakistan have been natural gas producing and consuming countries, and have developed infrastructure including pipeline networks. Therefore, this makes it easier to reduce business risks and necessary investment in those countries. Meanwhile, a mechanism where investors can recover their investment is necessary to invest. For example, in the most downstream part of an LNG value chain, we need to securely establish a mechanism to collect gas charges or electricity charges for gas power generation in foreign currencies. If this mechanism is not properly established, investors will not be assured of a return on investment. We are aiming to establish a mechanism for stable and long-term supply of LNG to South Asia by creating a series of systems ranging from re-

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in implementing the LNG transportation business under project financing, JBIC helped us develop a financing scheme in line with our needs. We expect JBIC to continue to further support the LNG value chain business by utilizing its accumulated networks with emerging countries, while taking into account the needs of Japanese companies.



NISHIZAWA Jun CEO, Natural Gas Group **Executive Vice President** Mitsubishi Corporation

ceiving LNG to regasification, transportation, gas sales, up to recovery of invested capital

Mr. Nishizawa: First of all, in developing projects in emerging countries, we expect JBIC to play a major role in creating a mechanism to collect sales proceeds.

Additionally, amid the trend toward decarbonization, more advanced measures to reduce CO2 emissions are required for LNG projects. We would highly appreciate it if JBIC could support not only LNG projects but also a wide range of businesses including the CCUS (Carbon Capture, Utilization and Storage) business.

Our Global Challenges

"Omotenashi" (Japanese hospitality and service) to strengthen bonds with customers is the key to our overseas expansion

-NAKAZAWA CO., LTD.

Having started as a small watch repair shop in a town, NAKAZAWA CO., LTD opened 95 shops in Japan and now expands its operation to China, Vietnam and Cambodia. What is the secret of its growth?

Finding d new opportunity in selling gift watches amid harsh business environment



"Omotenashi", the Japanese spirit of hospitality and service highly appreciated around the world, is the key to the global expansion of Nakazawa's retail business. The company, a retailer of watches, eyeglasses and jewelry, was established by NAKAZAWA Kohei in 1952 as a small watch repair shop in a tiny space of a four-and-a-half tatami (straw) mat room. Today, it has grown to a successful group of companies that operate in China (2 stores), Vietnam (5 stores) and Cambodia (2 stores), as well as in Japan where it has 95 stores.

What served as the catalyst of this growth is the power of imagination that turned a crisis situation into an opportunity.

In the 1990's, mobile phones rapidly became popular, which decreased the sales of watches. Under these increasingly difficult circumstances, NAKAZAWA Michimori, who was to succeed his father as the company's President & CEO in 2000, found a new business opportunity in selling "gift watches", which is a new concept that encourages customers to purchase a watch for someone else other than just themselves.

Casual watches targeted at a broad range of customers

"Everyone in the company was involved in exchanging their ideas to find a way to restore the custom of wearing watches on the wrist after they had been replaced by mobile phones. As a result, we reached a hypothesis that there must be customers who will think of giving a watch as a gift when they see the bare wrists of their loved

NAKAZAWA Michimori NAKAZAWA GROUP President & CEO

ones. But, of course, high-end watches would limit the potential customer base. We wanted to help a wider range of customers deepen their personal ties by giving a watch as a gift. For this reason, we chose to focus on retailing casual watches at between JPY10,000 and 30,0000."

Nakazawa also invited NISHIWAKI Ichiro, an interior designer, to completely redesign its retail space into a more stylish space that would appeal to the sophisticated younger generation by removing its existing unrefined image of a "watchmaker's workshop". In addition, they carefully chose the design of wrapping paper and shopping bags, in order to provide added value to the gift merchandise.

At the same time, they made their efforts to pass on and further enhance the technical know-how and skills necessary to repair watches, which has been a legacy of their company since its establishment. They employed certified watch repair technicians in all shops to ensure precision in maintenance service.

With these two strategies, they pioneered the new market of casual gift watches, while holding to their spirit of "Omotenashi".

Moreover, they created a completely new style of retail store called "Time Station NEO". This led them to start business with Aeon Co., Ltd., which also paved the way for their overseas expansion.



Local staff m hospitality, "Omotenashi



Store at Sen Sok City in Cambodia

"It all started when an Aeon employee saw one of our stores in Tokyo and asked us to open one in one of their shopping malls. From then on, we opened our stores in Aeon's shopping malls across the country, which helped push up our sales. When Aeon decided to expand abroad with the desire to serve customers in the spirit of the Japanese "Omotenashi", they again asked us to open our stores in their shopping malls overseas.

Nakazawa remains resolute in overseas expansion amid despair among retailers

Aeon had apparently approached some 20 to 30 prospective retailers in addition to Nakazawa, when deciding to expand abroad. However, when the Aeon Mall Tan Phu Celadon opened in Ho Chi Minh, Vietnam in 2014, there were only a handful of stores from Japan.

"The hurdle for overseas expansion was much higher than expected. To start with, we needed to establish a local subsidiary. A major bank told us we would need about JPY20 million for initial investment and working capital, which is a huge overhead for a small and medium-sized company. However, we wanted to try our best to work with Aeon which had made a make-orbreak decision in expanding their business to abroad. We consulted with our local bank, the Shiga Bank, Ltd. (Shiga Bank). They explained to us about how to set up a local subsidiary at minimum cost and provided us a loan to expand to overseas markets."

The next challenge was the training of local staff. It was extremely difficult to teach the art of Japanese customer service to local staff members who do not know even the simplest greeting words said by Japanese shop assistants, such as "irassyaimase (welcome)" or "arigatougozaimashita (thank you)".

"We made a tenacious effort to teach local staff members the Japanese style of service. We tried many ways through a trial-and-error approach, such as inviting them to Japan so that they could experience "Omotenashi" up close. Although we also have stores in China and Cambodia, each country has different business mindset and practices and therefore, we needed great

country."

However, what Nakazawa learned from this experience is now being fed back into their efforts to capture demand from foreign visitors to Japan. As Nakazawa continues:

"At present we have 45 Chinese staff members who practice the Japanese "Omotenashi" service. I suppose that if Chinese visitors to Japan receive Japanese service in their mother tongue, they would feel more comfortable. Sales to visitors from foreign countries have reached 7% of our total domestic sales."

ga Bank.

"By making use of JBIC's cross-border loans, our subsidiaries can borrow funds locally and directly. We believe that this not only reduces costs compared to borrowing from local banks, but also encourages the independence of the local subsidiaries. I hope we may be able to utilize JBIC's facilities for future expansion."



NAKAZAWA CO., LTD

Founded 1986 Total capital JPY50 million Business Retail of watches, eyeglasses and jewelry Headquarters 2-92 Chuo, Konan, Shiga Prefecture **Relation with JBIC** Received cross-border loans to be directly provided to their local subsidiaries in Vietnam and Cambodia which require funds for wristwatch sales and repair operations.

effort to find the right training method for each

Nakazawa plans to further expand their overseas store base. For the new stores they opened in Vietnam and Cambodia, they utilized JBIC's co-financing scheme proposed by the Shi-

Utilizing know-how gained from our overseas experience for domestic retail operation!

Carefully chosen wrapping paper and shopping bag

Corporate Data

Latest Report From Young Staff Project Frontline

JBIC is working on a variety of projects around the world. Young staff members report on the significance of the latest projects and the role of JBIC.

Loan to the freight railway business for achieving stable logistics in Brazil



Locomotive owned by VLI

razil is one of the world's largest trade surplus countries for ag-Dricultural products, having a significant presence in the global agricultural market. Moreover, Brazil is the world's leading producer and exporter of mineral resources including iron ore, copper ore, and bauxite

However, Brazil's transportation infrastructure has not been established sufficiently and the country depends heavily on truck transportation. In 2018, truck drivers launched a large-scale strike demanding a reduction in fuel prices. As this strike demonstrates, unstable logistics network and rising costs become problems. To address these problems, a departure from heavy reliance on truck transportation, in other words, a modal shift is a critical issue for Brazil.

Under these circumstances, we received a request of a loan to the freight railway business operated by a Brazilian corporation VLI S.A., which is jointly invested in by Mitsui & Co., Ltd. and a Brazilian corporation Vale S.A., VLI provides combined and integrated transportation services through Brazil's railway networks and harbors. Vale, which is the world's leading mineral resource supplier and also the largest stakeholder in VLI, has built favorable relationships with Japanese companies over a long period of time.

We initiated a full-scale consideration for providing a loan to VLI from around summer of 2018 and proceeded with a drafting of the loan agreement and the negotiation process. However, this negotiation was far from easy. As this was our first time to do business with VLI, we made a tenacious effort to propose and explain JBIC-specific contractual terms and conditions to be included in a loan agreement until they understood its necessity. During negotiations, I strived to understand the true needs hidden behind the message from VLI, while bringing my legal experience and knowledge gained from when I was in the legal department to promote their understanding towards JBIC's financing terms and conditions within their organization

With the support of JBIC's representative office in Rio de Janeiro, my boss and colleagues, we finally concluded this negotiation one year later and held a signing ceremony with the attendance of the executives of both companies.

We believe this project contributes not only to stable logistics network and cost reductions through the establishment of logistics

Project finance for long-term, stable procurement of copper concentrates



Quebrada Blanca conner mine in the Taranacá Region, Chile

opper is essential resource used by various industries for production of electric cables, electronic equipment, automobiles and construction materials, etc. As demand for copper is expected to rise globally, competition for acquiring interests in high-quality copper mines continues to intensify. Japan relies solely on imports for copper concentrates. As highlighted by the Japanese government's Strategic Energy Plan which has set a goal of achieving at least 80% self-sufficiency* for base metals, including copper, by 2030, longterm stable procurement of copper is an important challenge for the country. (*"self-sufficiency" is the ratio of Japan's ownership of interest in resources or that of Japanese companies' participation in

resources projects.)

Against this backdrop, in December 2018, Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation decided to acquire a partial stake in Quebrada Blanca Copper Mine in Chile from Tech Resources Limited (Canada) and invest in the development of this copper mine. In response to their request of a loan, JBIC started a full-scale consideration of funding the project in the form of project financing.

The sponsor gave us only a six-month lead time to finalize loan negotiations, which was indeed challenging for us. However, thanks to our vast experience in supporting copper mine development projects, as well as the sponsor's excellent leadership, enthusiasm and sincerity in their approach to their work, we managed to sign a loan agreement for project finance amounting to USD900 million (JBIC portion) on May 30, 2019.

I feel delighted that I was involved in support for the project that contributes to securing important resources for Japan, while meeting the needs of our clients through the use of JBIC's financial instruments and know-how that has been accumulated so far.



YONEMURA Takashi

Division 1 Mining and Metals Finance Department **Energy and Natural Resources Finance Group** (then)

'This project made me realize that JBIC actively helps Japanese companies expand overseas and contributes to the natural resource policy of Japan."

New credit line for environmental preservation in Vietnam

Vietnam is in the middle of developing its power sources to respond to increasing power demand due to the nation's economic growth. On the other hand, there is a steady increase in awareness of the environment. Faced with the need to mitigate the impact of climate change, the Vietnamese government announced the expanded use of renewable energy in its revised Power Development Plan VII adopted in 2016.

Under such circumstances, JBIC proposed a credit line to be set up for Vietcombank (VCB) under the framework of its newly established "Global Facility to Promote Quality Infrastructure Investment for Environmental Preservation and Sustainable Growth" (OI-ESG). QI-ESG is a financing facility that aims to support infrastructure projects contributing to global environmental preservation.



Signing ceremony in Hanoi on June 25, 2019

- infrastructure that underpins the Brazilian economy, but also to the
- overseas expansion of Japanese companies and enhancing relationships with Vale.





UOZAKI Mizuki Division 1 & 4

Social Infrastructure Finance Department Infrastructure and Environment Finance Group

would like to work in JBIC's overseas representative office to promote projects while building deep relationships with nments and companies

VCB showed an interest from the outset of a proposal, but with little experience in doing business with foreign financial institutions, as well as a lack of familiarity with international financial practices, their approach was often greatly at odds with ours. Meanwhile, we had to show them that there were contractual terms and conditions we could not concede on in order to provide finance within the framework of JBIC's facility for QI-ESG.

The only way for us to overcome these crucial differences and reach an agreement was through continuous dialogues and building of trust. We visited Vietnam five times for face-to-face discussions and held meetings with them at least 15 times, including over the phone, to exchange views. It was not uncommon for a single session to last half a day or more.

After one year of such tough negotiations, we were finally able to agree upon a credit line totaling USD200 million. My sense of achievement at that time was enormous and I was delighted to have been able to contribute to environmental preservation in Vietnam, as well as greater business expansion by Japanese enterprises.

profile



YAGURA Kohei

Division 1 New Energy and Power Finance Department II Infrastructure and Environment Finance Group (then)

"I wish to utilize my experience being involved with the project rom the proposal phase throughout to the signing of a credit ne agreement, when working for other projects in future."



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