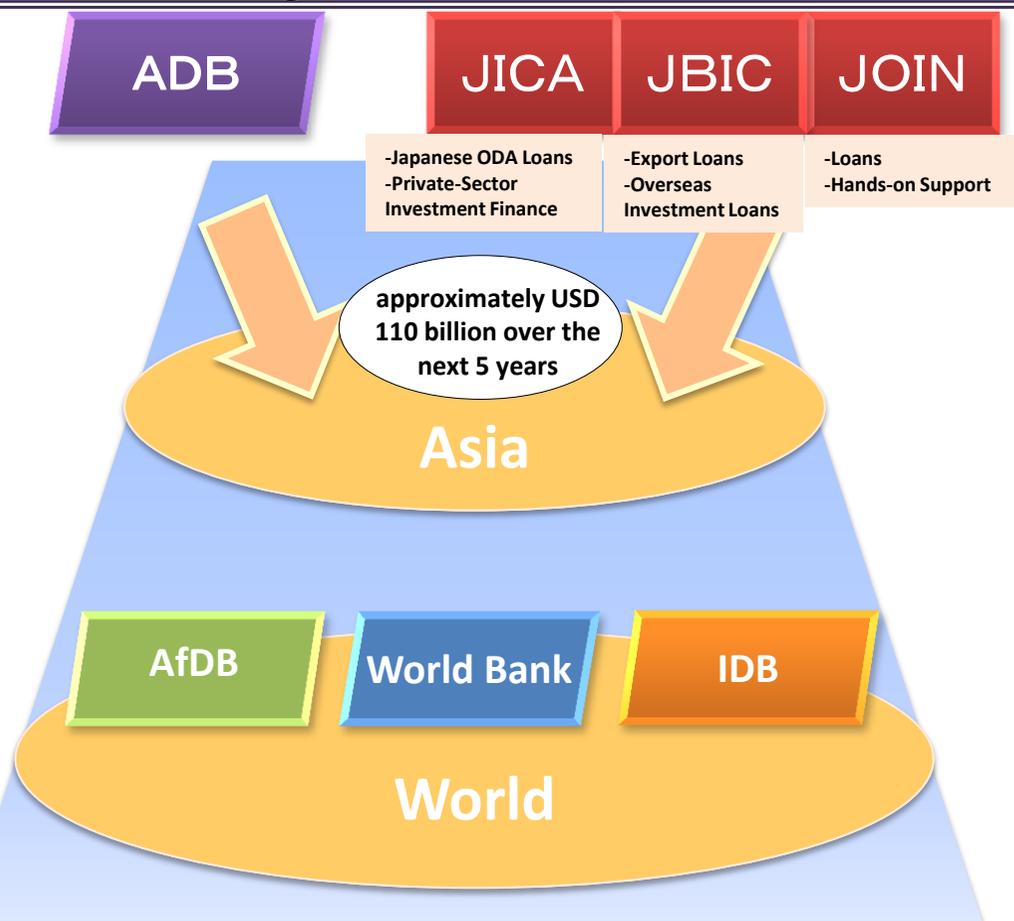


# Partnership for Quality Infrastructure

- Japan will fully mobilize public and private resources, in collaboration with other countries and international organizations, to address the immense demand for infrastructure development in Asia.
- Japan and the strengthened Asian Development bank (ADB) will provide approximately USD 110 billion (more than USD 50 billion from Japan and more than USD 50 billion from the ADB) for quality infrastructure investment in Asia over the next five years.
- This initiative will play a catalytic role in further mobilizing private funding and know-how to realize sufficient infrastructure investment in terms of both quality and quantity.
- Japan will further promote quality infrastructure investment globally in collaboration with other countries and international organizations.



## 【Essence of Quality Infrastructure】

- Economic efficiency (low life-cycle cost)
- Safety
- Resilience against natural disaster
- Consideration on environmental and social impact
- Contribution to the local society and economy (transfer of technology and human resources development)

## 【Four pillars of “Partnership for Quality Infrastructure”】

1. Expansion and Acceleration of Assistance through JICA
2. Collaboration with ADB
3. Measures to Increase the supply of funding for projects with relatively high risk profiles through JBIC, etc.
4. Promoting the Importance of Quality Infrastructure Investment Globally in the process of Developing Relevant International Standards

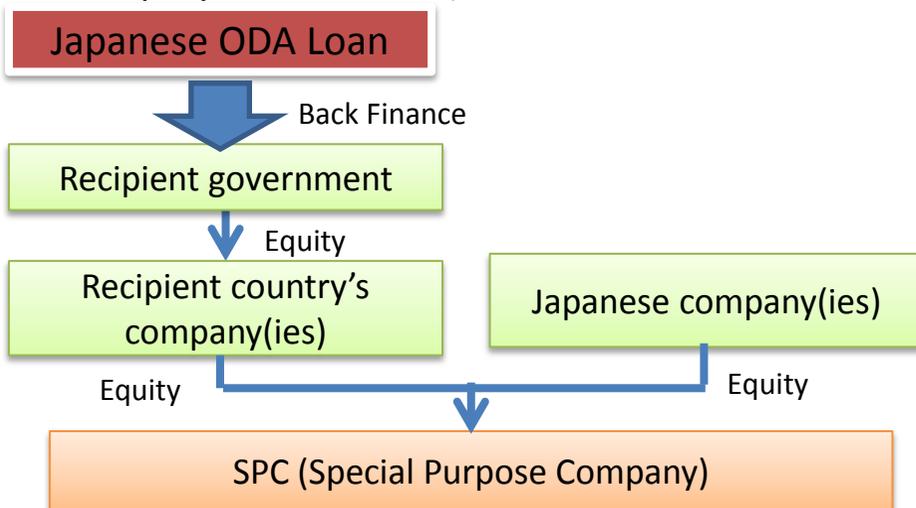
# First Pillar: Expansion and Acceleration of Assistance through JICA①

◎ The amount of total Japanese ODA Loans provided to Asian countries in the field of infrastructure after the announcement of the PQI in May until the end of October increased by approximately 1.5 times compared to the same period last year (on an E/N basis).

- An example of a large-scale project:  
the North South Commuter Railway Project (The Philippines)  
...about 38km connecting Metro Manila and outlying areas  
(Japanese ODA Loan of approximately 240 billion yen)

◎ Individual projects, including the ones that utilize new types of Japanese ODA Loans, have been formulated.

EBF (Equity Back Finance)



- First EBF Loan project:  
Industrial area development (Bangladesh)  
(Extends Japanese ODA Loan (approximately 1.5 billion yen) to back finance the equity provided by a recipient government to an SPC in charge of special economic zone development.)

# First Pillar: Expansion and Acceleration of Assistance through JICA ②

## -Acceleration of Assistance-

### ◎ Further Acceleration of Japanese ODA Loans [Japanese ODA Loans ]

- In order to increase the attractiveness of Japanese ODA Loans, the GoJ will further expedite Japan's ODA Loans procedures. Specifically, the GoJ will reduce the period necessary for government-related procedures to approximately 1.5 years\* at most for important projects and to approximately 2 years at most for other projects by taking the following measures:
- (a) promoting making pre-pledge at an early stage for projects that are of diplomatic importance or for which Japan's fine technologies and know-hows can be utilized;
- (b) conducting the detailed design study by consultants who were in charge of the feasibility study (F/S)\*\* of the project by applying the single-source selection (SSS) procedure; and
- (c) steadily conducting the front-loading of the notifications to the OECD.

\*The current period necessary for government-related procedures is approximately 3 years.

\*\*F/S verifies whether a proposed project is viable to be implemented (realized and plans and formulates a project in a way that is most appropriate for implementation).

### ◎ Acceleration of Private-Sector Investment Finance [Private-Sector Investment Finance]

- For projects that are regarded to be suited for JICA's appraisal, JICA will start its appraisal process in principle within one month after an application was filed by private companies, etc. (in principle within two weeks after the presentation by JICA to the three relevant ministries of the GoJ (the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Economy, Trade and Industry)). In addition, the standard period for the Japan Bank for International Cooperation (JBIC) to respond to inquiries on projects will be 2 weeks.

### ◎ Introduction of Special Contingency Reserves [Japanese ODA Loans ]

- The GoJ will introduce a system in which "special contingency reserves" will be added in the amount to be committed in Exchange of Notes (E/N) in cases where Japanese ODA Loans will be provided to projects with high uncertainty or to countries with unstable political and economic situations.

# First Pillar: Expansion and Acceleration of Assistance through JICA ③

## -Encouragement of Private Investment-

### ◎ Expansion of the coverage of Private-Sector Investment Finance

[Private-Sector Investment Finance]

- The GoJ will review the interpretation of the requirement of “no-precedent policy” for the Private-Sector Investment Finance (loan) and clarify that the Private-Sector Investment Finance can be provided in cases where non-concessional loans by existing Japanese private financial institutions cannot realize projects, even if there is a precedent of a loan provided by a private financial institution to a similar project.

Note: A no-precedential case for the Private-Sector Investment Finance (loan) means that, in principle, a non-concessional loan has never been provided to similar projects in the host country.

### ◎ Strengthening the collaboration between JICA and other organizations

[Private-Sector Investment Finance]

- The GoJ enables JICA to co-finance with private financial institutions when the provision of Private-Sector Investment Finance (loan) under concessional terms (i.e. the rate of interest, period, seniority, etc.) complements the loans or equities provided by existing Japanese private financial institutions in a qualitative manner and make such loans or equities possible.

Note: Until this announcement, JICA was not able to provide co-financing with private financial institutions for Private-Sector Investment Finance (loan).

### ◎ Conducting pilot/test-marketing projects to encourage quality infrastructure

[Grant Aid, etc.]

- The GoJ will provide systems, etc. in which Japan has superiority through grant aid and technical assistance financed under JICA’s Finance and Investment Account, etc. and inform their advantages to recipient countries, thereby realizing the provision of Japanese ODA Loans and expanding private businesses.

# First Pillar: Expansion and Acceleration of Assistance through JICA ④

## -Enhancement of the Attractiveness of Japanese Assistance-

The GoJ will further enhance the attractiveness of Japanese ODA Loans by taking the following measures on condition that JICA's fiscal soundness is ensured;

◎ **Introduction of Japanese ODA Loans with Currency Conversion Option to countries whose GNI per capita level is the same as or higher than that of Upper-Middle-Income Countries** [Japanese ODA Loans ]

- The GoJ will introduce Japanese ODA Loans with Currency Conversion Option to countries whose GNI per capita level is equal to or higher than that of Upper-Middle-Income Countries in order to increase the attractiveness of Japanese ODA Loans by making their repayment options flexible and to encourage developing Japanese ODA Loans projects in which Japanese companies may participate.

Note: Japanese ODA Loans with Currency Conversion Option have already been introduced to countries whose GNI per capita level is the same as or lower than that of Middle-Income Countries since January 2013.

# First Pillar: Expansion and Acceleration of Assistance through JICA ⑤

## -Enhancement of the Attractiveness of Japanese Assistance-

### ◎ Establishment of Dollar-denominated Japanese ODA Loans [Japanese ODA Loans ]

- The GoJ will provide Dollar-denominated Japanese ODA Loans as Government loans provided through JICA.

### ◎ Establishment of High-spec Loans [Japanese ODA Loans ]

- The GoJ will establish High-spec Loans to provide concessional loans for projects that are specifically regarded as promoting quality infrastructure.

Note: The requirements as well as terms and conditions are to be decided.

### ◎ Establishment of Japanese ODA Loans for business/management rights

[Japanese ODA Loans ]

- The GoJ will establish Japanese ODA Loans for business/management rights by actively providing Equity Back Finance (EBF) Loan, Viability Gap Funding (VGF) Loan, and Contingent Credit Enhancement Facility for PPP Infrastructure Development for projects in which Japanese companies have acquired or are considering acquiring business/management rights. At the same time, the GoJ will take such measures as making a pre-pledge by the Government or issuing a Letter of Intent (LOI) by JICA for projects that are of diplomatic importance or for which Japan's quality technology and know-hows can be utilized in cases where expressing its interest in the project is perceived to be necessary and the conditions such as the macroeconomic situations and the debt sustainability are confirmed.

# First Pillar: Expansion and Acceleration of Assistance through JICA ⑥

## -Enhancement of the Attractiveness of Japanese Assistance-

### ◎ New measures for Sub-sovereign Loan [Japanese ODA Loans ]

- In providing Japanese ODA Loans directly to sub-sovereign entities of developing countries, the GoJ will decide to exempt the government guarantee as an exception on a case-by-case basis at a Ministerial conference if various conditions, including economic stability of recipient countries and sufficient commitment by recipient governments, are met.

Note: Sub-sovereign entities mean local governments, state-owned companies, etc.

### ◎ Implementation of technical assistance financed under JICA's Finance and Investment Account to support contractee to realize quality infrastructure

- The GoJ will provide assistance to contractee through technical assistance financed under JICA's Finance and Investment Account\* to ensure the quality of Government loans projects that require high-precision construction (e.g. construction of civil engineering structures for high-speed railway) and to realize quality infrastructure.

Note: As technical assistance financed under JICA's Finance and Investment Account, JICA conducts studies, etc. in the aim of ensuring swift and smooth implementation/achievement of development projects, etc. under Japanese ODA Loans/ Private-Sector Investment Finance or increasing their development effects. Such technical assistance is conducted at JICA's own expense (e.g. principal payments) without relying on government funding.

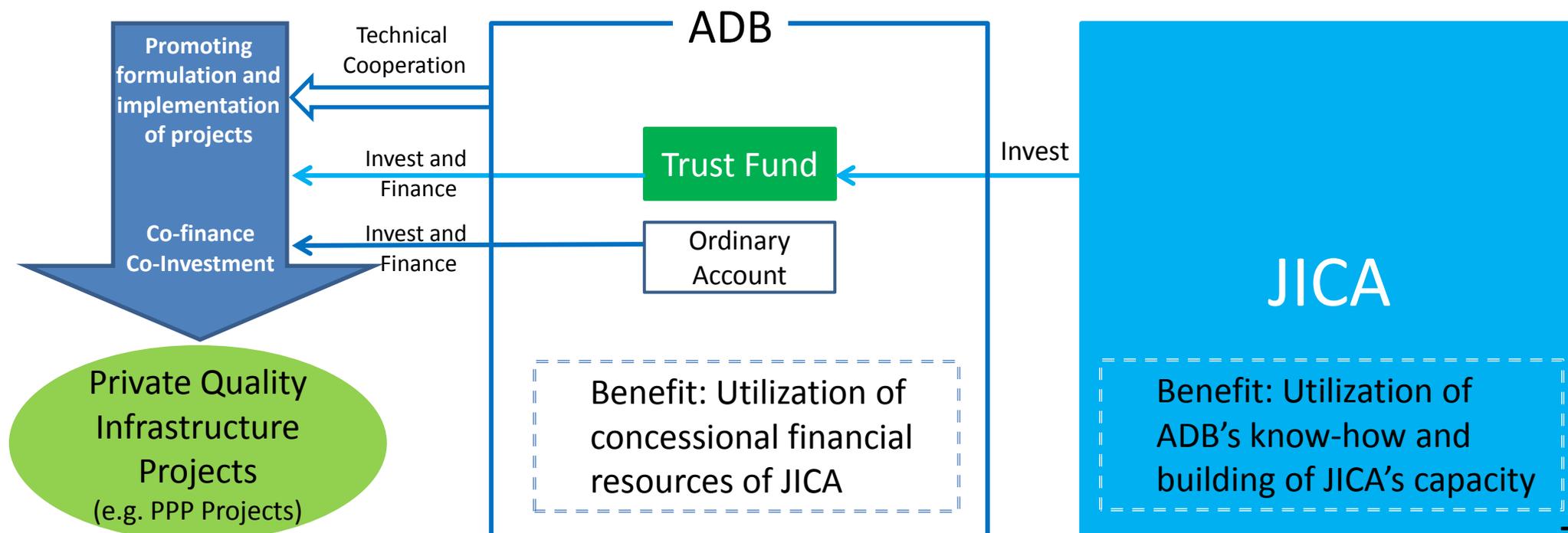
## Second Pillar: Collaboration with ADB ①

### -Support for Private Infrastructure Projects through Measures such as PPP-

For the investment and financing for quality infrastructure projects, the Government of Japan agreed on a new collaboration package with ADB, which consists of the following three elements;

1. A new trust fund will be established in ADB through JICA's investment by the end of March 2016 and it will invest in and finance private quality infrastructure projects through measures such as PPP. The JICA Trust Fund will target to invest and finance up to USD 1.5 billion in the next 5 years.

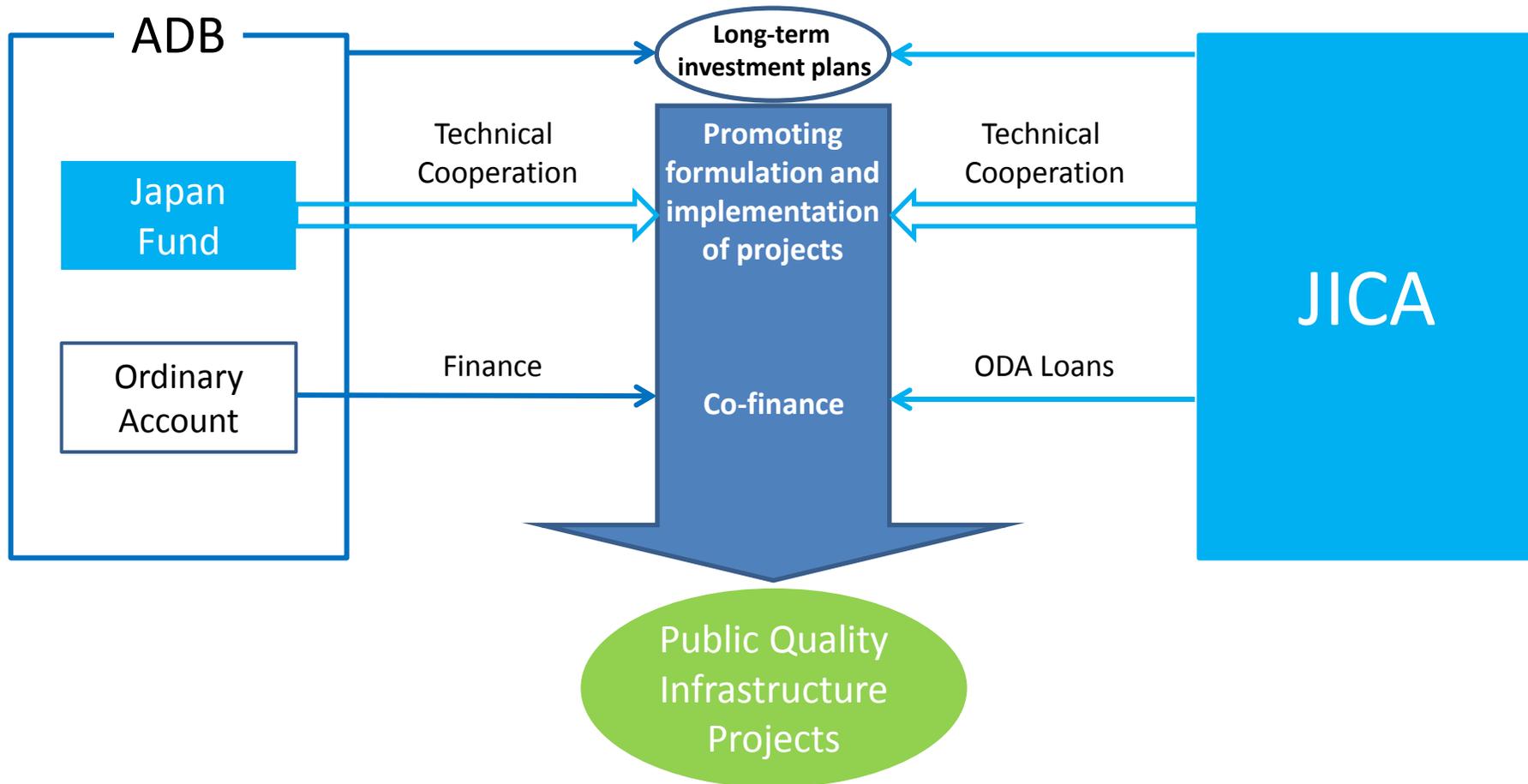
(Note: ADB expects to mobilize USD 6 billion of funding, including the trust fund, ADB's ordinary account and private funding.)



## Second Pillar: Collaboration with ADB ②

### -Promotion of Public Infrastructure Development and High-level Policy Dialogues-

2. To promote public quality infrastructure development, JICA, in collaboration with ADB, will support long-term investment plans and provide technical cooperation and loans for sovereign projects. JICA and ADB will target to co-finance USD 10 billion in the next 5 years.



3. The Government of Japan, JICA, and ADB will hold high-level policy dialogues regularly for smooth implementation of quality infrastructure investment under the abovementioned initiatives.

# Third Pillar: Measures to Increase the Supply of Funding for Projects with Relatively High Risk Profiles through JBIC, etc. ①

In order to further support Japanese companies to expand their business in the field of overseas infrastructure projects such as the ones that utilize private funding and know-hows, the Government of Japan will consider strengthening the functions of government agencies such as the Japan Bank for International Cooperation (JBIC).

## ◎ Further Risk Taking by JBIC

- The Government of Japan will add the Specially Designated Operations to JBIC, through which JBIC will provide funding to overseas infrastructure projects that have a sufficient level of expected return as well as high risk profiles. (Note: The account for the Specially Designated Operations will be separated from the general account.)
- On condition of ensuring the necessary fiscal foundation, the Specially Designated Operations will enable JBIC to take further risks by exempting the requirement to ensure certainty of repayment for each project, while maintaining the principle of securing sufficient revenue to cover its expenses as a whole.

## ◎ Expansion of JBIC's Local Currency Loans

- JBIC will introduce a long-term borrowing from local financial institutions as a means to obtain local currency so that it can expand its Local Currency Loans that are of high demand in infrastructure projects especially in developing countries.

## ◎ Diversification of JBIC's Assistance Tools

- JBIC will introduce new assistance tools for overseas infrastructure projects (e.g. two-step loans to banks, acquisition of bonds (project bonds), and Islamic finance).

## Third Pillar: Measures to Increase the Supply of Funding for Projects with Relatively High Risk Profiles through JBIC, etc. ②

### ◎ Strengthening the Functions of the Nippon Export and Investment Insurance(NEXI)

NEXI will;

- Extend the term of investment insurances (15 years → 30 years) to accommodate itself to the increase in project periods
  - Cover the risk of the breach of contract by foreign governments, etc. even after the end of the project period
  - Expand its coverage for mezzanine loans (e.g. subordinated loans and preferred shares) (cover corporate failures in addition to country risks)
  - Establish dollar-denominated trade insurances
  - Expand its coverage on country risk to 100% for loan insurances (currently 97.5%)
  - Establish a new insurance product to cover sub-sovereign risks
  - Provide coverage on the breach of contract regarding interest SWAP for enterprises to a certain extent
  - Include its insurance premium in the coverage of buyer's credit loans
- 
- The diagram consists of two vertical brackets on the right side of the list. A red bracket groups the first two items under the label 'Investment Insurance'. A blue bracket groups the remaining five items under the label 'Loan Insurance'.

◎ JOIN, which was established in October 2014, decided to invest in a high-speed railway project connecting Dallas and Houston in the United States, on the premise of introducing Japan's Shinkansen technology by an American enterprise.

◎ The Government of Japan will establish the JICT as a government-private sponsored fund that invests in overseas projects in the fields of telecommunications, broadcasting, and postal service.

(Note: It is scheduled to be established by the end of November.)

# Fourth Pillar: Promoting the Importance of Quality Infrastructure Investment Globally in the process of Developing Relevant International Standards

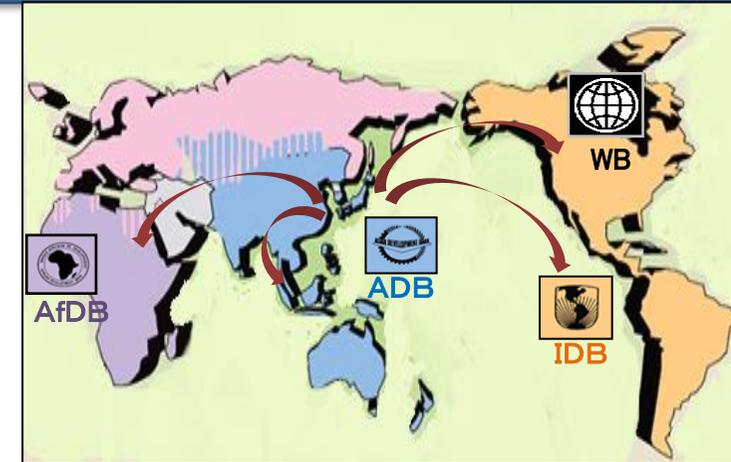
The GoJ will consider collaborating with ADB and other MDBs.

◎ Sharing and introduction of Japan's advanced technologies across the world.

- The GoJ compiled the "Quality Infrastructure Investment Casebook" and shared its English version to countries around the world. Japan will continue updating examples shown in the casebook accordingly.
- The GoJ also conducted tours of infrastructure project sites for diplomatic corps in Tokyo, including the Isoko Thermal Power Plant and the urban development of Marunouchi district.

◎ Promoting and re-affirming the importance of quality infrastructure investment together with countries across the world.

- The GoJ has continued to stress the necessity of promoting quality infrastructure investment in international meetings at the leaders' and the ministerial levels, including the UN, the G20, the G7, the APEC, and the ASEAN fora in the wake of the announcement of the Partnership for Quality Infrastructure in May 2015. The necessity to promote quality infrastructure investment has been confirmed in the outcome documents of these meetings.
- The GoJ also organized events on this subject on the margins of UN (the Third International Conference on Financing for Development)/G20 meetings.



ADB: Asian Development Bank  
AfDB: African Development Bank  
IDB: Inter-American Development Bank

### Gas Turbine Combined Cycle (GTCC) Power Plant

**Technical summary**

- Gas turbine combined cycle (GTCC) power plant is a highly efficient power generating technology which consists of a gas turbine turned by combustion gas and a steam turbine turned by steam generated by heat recovery steam generator using exhaust gas from the gas turbine.
- To make a large GTCC system highly efficient, it is particularly important to develop a large frame gas turbine that can withstand high-temperature and high-pressure gas. Because of this, Japanese manufacturers have developed (i) heat-resistant material and (ii) high performance cooling technology so that their latest main products can withstand a high temperature of 1,500 degrees centigrade. Their technology is at the highest level in the world.

**Characteristics as "Quality Infrastructure" technology**

- GTCC uses liquefied natural gas (LNG), which emits less CO2 than coal. Furthermore, by effectively using exhaust gas from gas turbine, its thermal efficiency is 10% higher than the efficiency when a gas turbine or steam turbine alone is used. The thermal efficiency of Japanese GTCC has achieved over 60%, which is the world's highest technology level.
- (ii) Environmentally-friendly and social considerations, etc.)

**Domestic and overseas experiences**

- Japanese manufacturers have over-inhaling performance records and have a large market share in the production of GTCC.
  - Number of delivered gas turbines: 816 (in the whole world, including Japan) as of March 2015
  - World market share of gas turbines in 2014: 19% (large ones with an output of 170 MW or more)
  - US, South Korea, Indonesia, Thailand, Myanmar, India, Near and Middle East, Turkey, Uzbekistan, etc.

Gas Turbine Global Experience by a Japanese Manufacturing Company

Total Number of Units: 816

