

Summary of Environmental Finance Programs

Environment and Economy Division
Ministry of the Environment
February 1, 2017

Promoting Low Carbon Investment

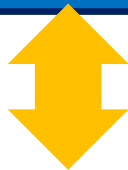
The Central Environment Council estimated in 2012 that the additional investment would be 135 to 163 trillion yen to enhance introduction of renewable energy and energy efficiency projects.

Promoting communication and disclosure

- Platform of Disclosure on Environmental Information
- Research of promoting ESG investment
- Information disclosure on renewable energy fund

Financial support for low carbon investment

- Fund to promote local low-carbon investment
- Interest subsidy for expanding environmental financing
- Eco-lease promotion program



**Collaboration with those related to financial sectors
(Ex. Principles for Financial Action
towards a Sustainable Society)**

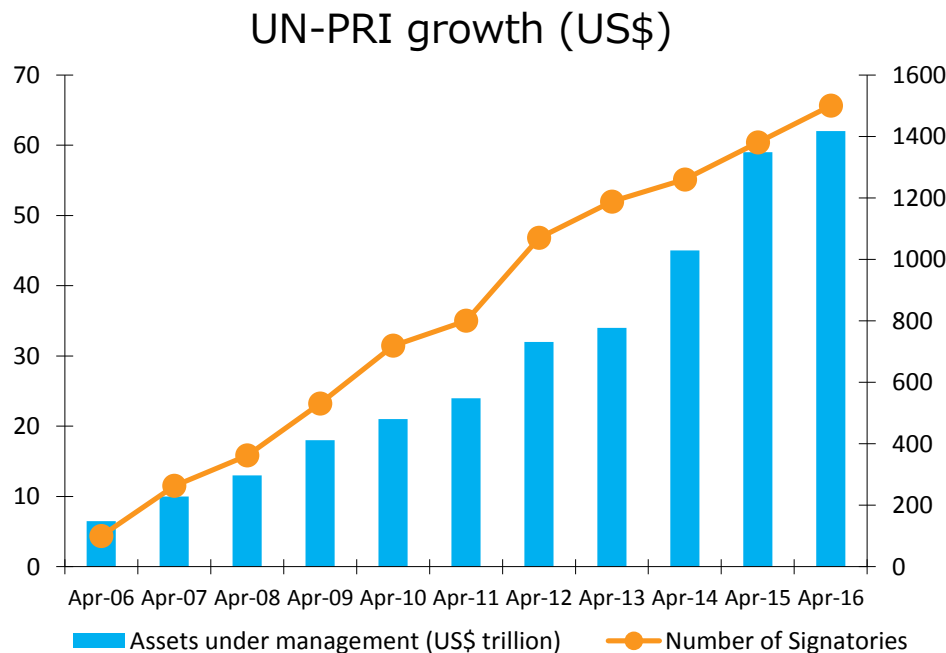
Acceleration of Sustainable Finance in Global Market

Increase of importance to understand risk and opportunity due to global issues like global warming, climate change and expansion of global supply-chain, etc.

- ⇒ Risk: possibility of negative impacts on long-term corporate value by those issues of climate change (e.g.: physical risks, liability risks and transition risks), procurement of resource and development, labor, etc.
- ⇒ Opportunity: efficient use of resource and improvement of use in natural capital, labor power, etc. can be expected to have positive impacts on long-term corporate value.

Expanding Responsible Investment on Global Market

Recent Situation in Japan



Source: PRI

- Japan's Stewardship Code (2014)
- Japan's Corporate Governance Code, GPIF signed the UN-PRI (2015) etc.

- In 2015, the Ministry of Environment (MOE) set up an expert panel to consider how to enhance basic understanding of ESG investment, mainly from the viewpoint of "E". In Jan 2017, MOE published the ESG guidebook.
- Since 2013, MOE has been developing the Environmental Information Disclosure Platform.

Principles for Financial Action towards a Sustainable Society

- Established in 2011 as a platform for expanding Japanese environmental finance through sharing information and collaboration
- 250 financial institutions have signed the principles (as of Jan 2017).
- It has 5 working groups including the group of investors and asset managers.
- The award of the Environmental Minister was launched on FY2014.

The principles

1. Recognize our roles and responsibilities, taking into account the precautionary approach, and promote those actions that contribute towards shaping a sustainable society
2. Contribute to the formation of a sustainable global society through the development and provision of financial products and services
3. Assist the environmental programmes of small and medium enterprises from the perspective of regional development
4. Cooperate with diverse stakeholders
5. Take active steps to reduce our own environmental footprint and encourage our suppliers to do likewise
6. Disclose information on our activities
7. Raise awareness of environmental and societal issues of our own board



Working group



The ceremony of the award



the Annual meeting

Promotion of Low Carbon Investment through Environmental Finance

- To create the low carbon society, a large amount of additional investment is required for drastic increase in renewable energy and promotion of energy efficiency measures. In order to materialize such investment, mobilizing private finance is essential.
- MOE steadily promotes the “Low Carbon Society Establishment Finance Initiative” which was launched in January 2013, and fosters regional low carbon projects across Japan through the 3 programs accelerating and mobilizing private finance.

Fund to Promote Local Low-carbon Investment (Japanese Green Fund)

JPY 6 billion, FY2016

- Establishes the Japanese Green Fund which finances low carbon projects to mobilize private finance.
- Expands private investment for low carbon projects which contribute to both CO2 emission reduction and local revitalization.

Interest Subsidy for Expanding Environmental Finance

JPY 2.1 billion, FY2016

- Provides interest subsidy to specified financial institutions which prepare loan program for low carbon projects, to alleviate the interest burden for entities implementing low carbon projects, and to facilitate smooth financing or to promote loans with environmental viewpoints.

Eco-lease Promotion Program

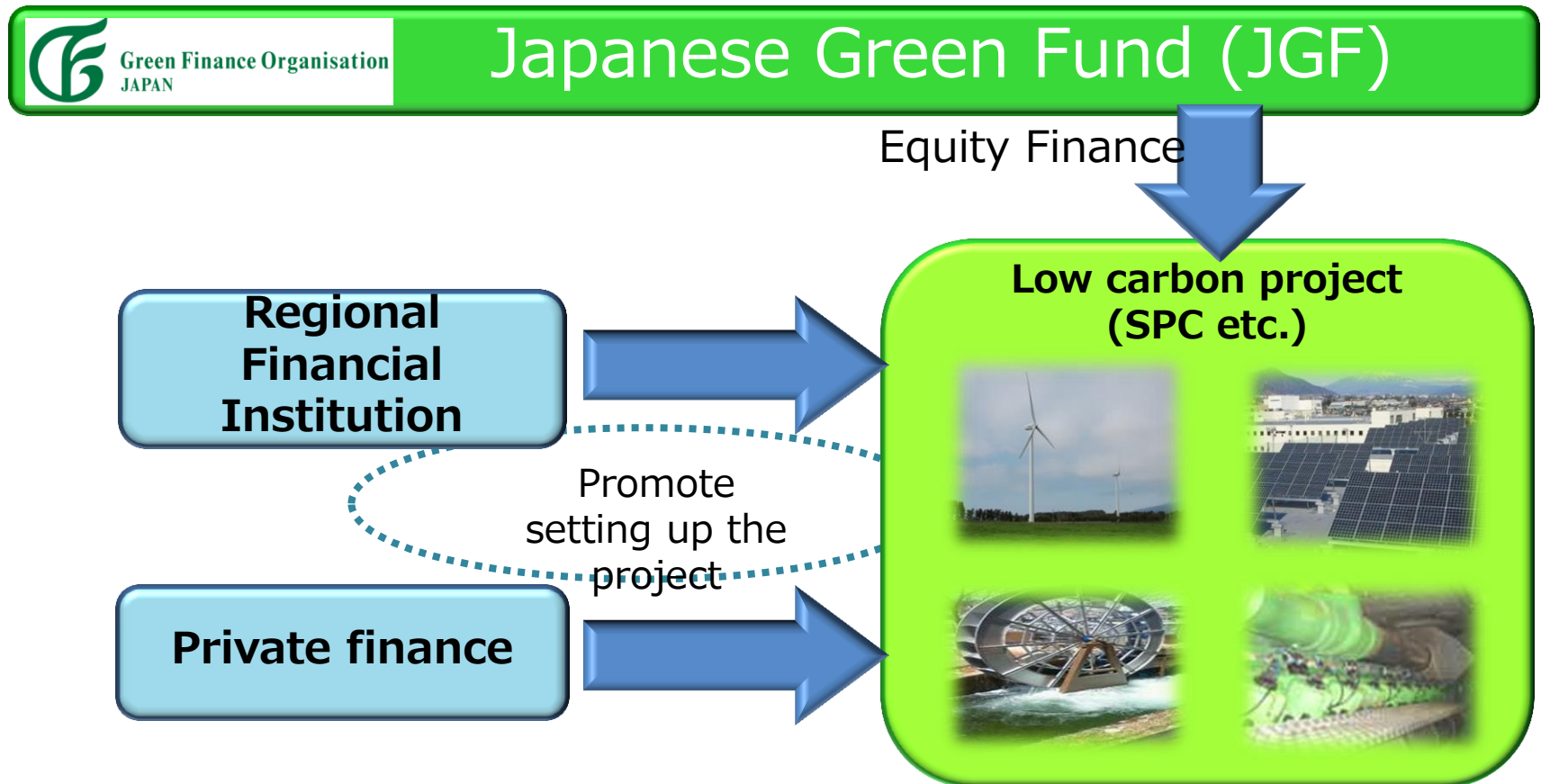
JPY 1.8 billion, FY2016

- Provides lease fee subsidy to specified lease companies which prepare “eco-lease” contract for installation of low-carbon devices, in order to alleviate the burden for entities who cannot afford to the upfront cost for the installation.

Japanese Green Fund (JGF)

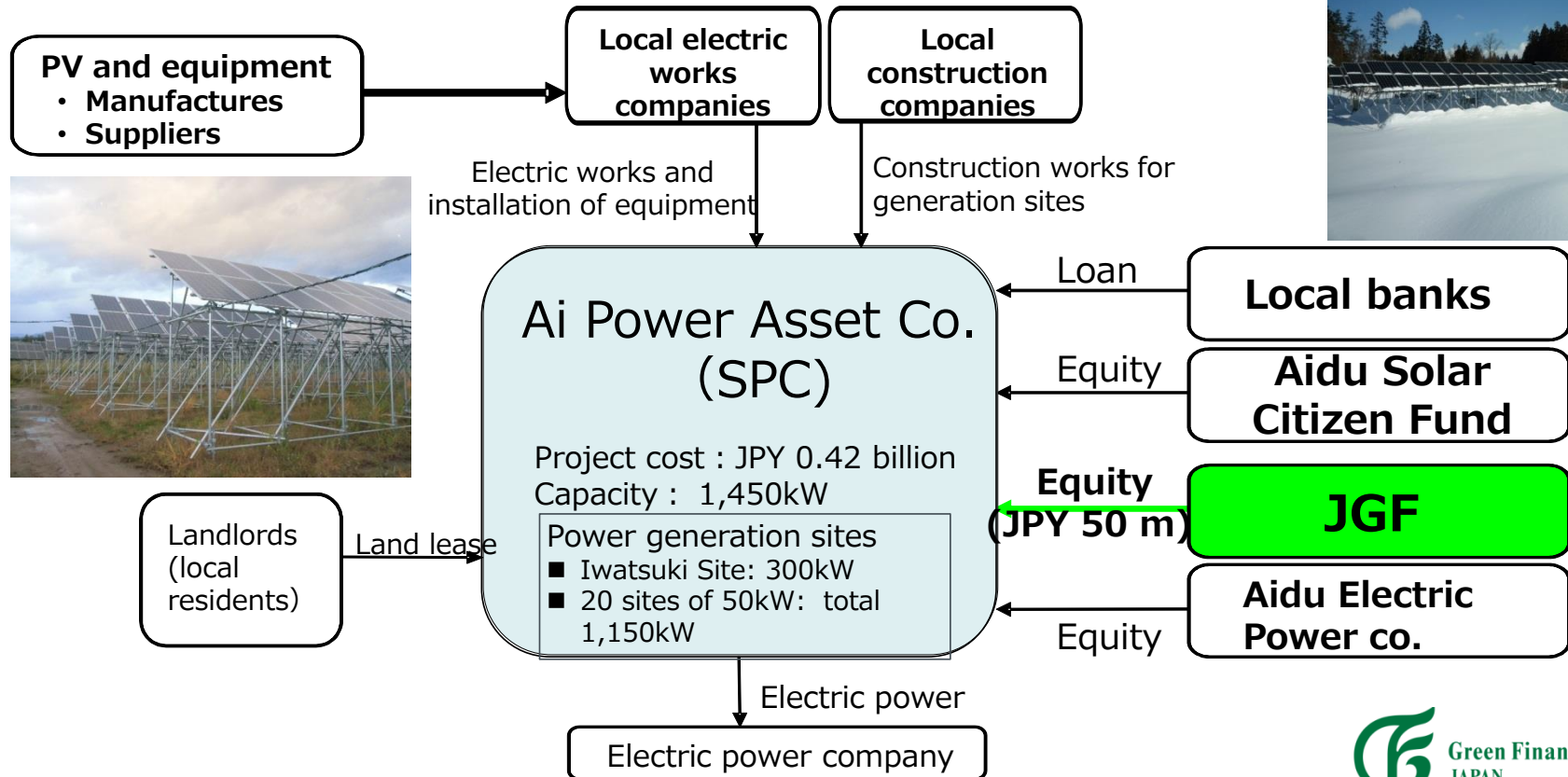
- JGF is the fund established by the Ministry of the Environment in 2013 to mobilize private investment into low-carbon infrastructure.
- JGF focuses on projects that can contribute not only to CO2 emission reduction but also to revitalization of local communities.
- JGF invests in the projects only when the JGF's equity finance can leverage investment from regional financial institutions and other private financial institutions.

<JGF's Scheme>



Example of the Project to which the JGF Invested

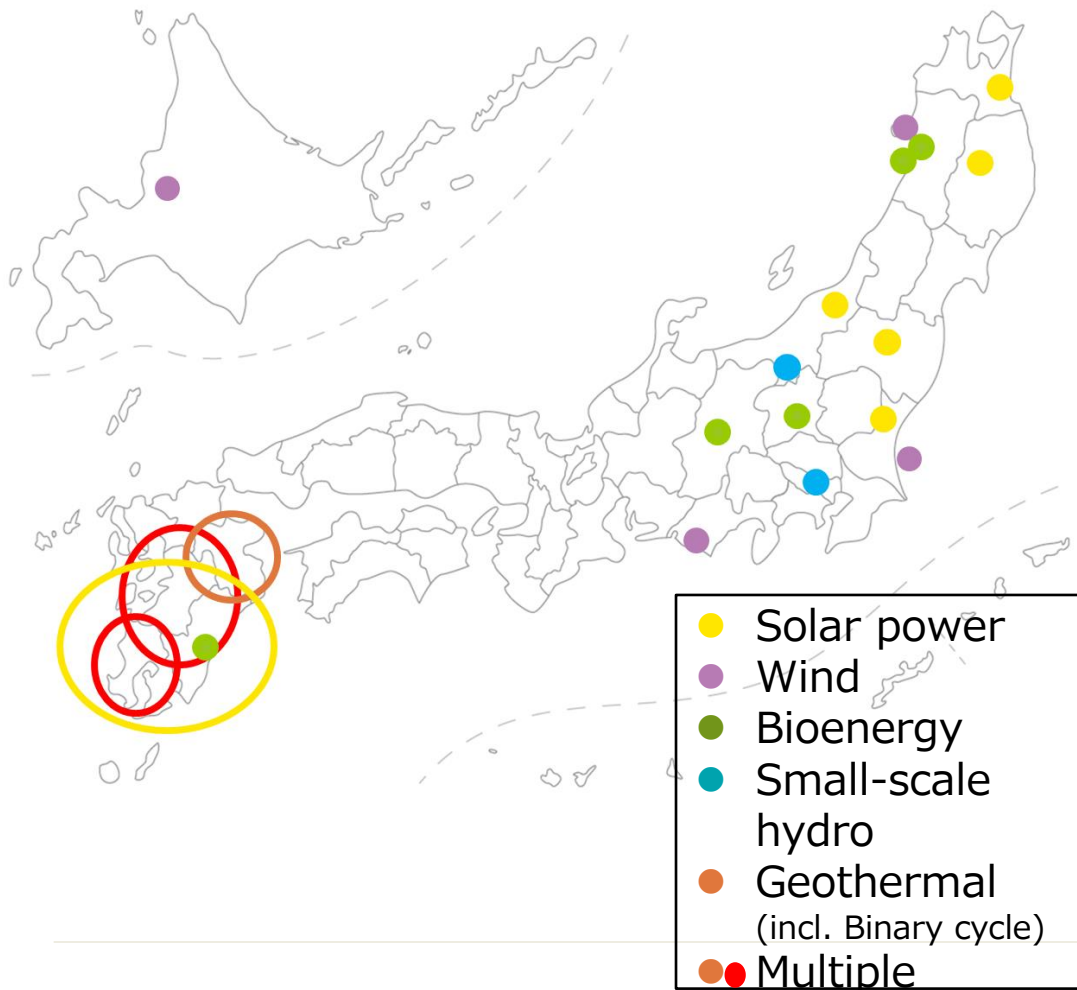
Investment to the Small-scale Solar Power Project



- Investment from the JGF to the Aidu area in Fukushima supports not only promotion of renewable energy but also restoration from the disaster of Tohoku Earthquake in 2011.
- This project is expected to be **a model of solar power projects designed for snow and ice regions.**

Summary of Investment Commitments by JGF

- JGF has committed to 24 projects with approximately JPY 8.8 billion in total. Those commitments have mobilized over JPY 72 billion of private finance.
- Total amount of CO2 reduction is estimated to approximately 680,000t-CO2/year.



Type of Renewable	Amount of Commitment (Approx.)	Number of Projects
Solar	JPY 1.2 billion	6
Wind	JPY 2 billion	5
Small-scale Hydro	JPY 0.6 billion	2
Bioenergy	JPY 1.7 billion	5
Geothermal (incl. Binary cycle)	JPY 0.3 billion	1
Multiple	JPY 1.2 billion	2
Total	JPY 8.8 billion*	24*

※includes unreleased projects

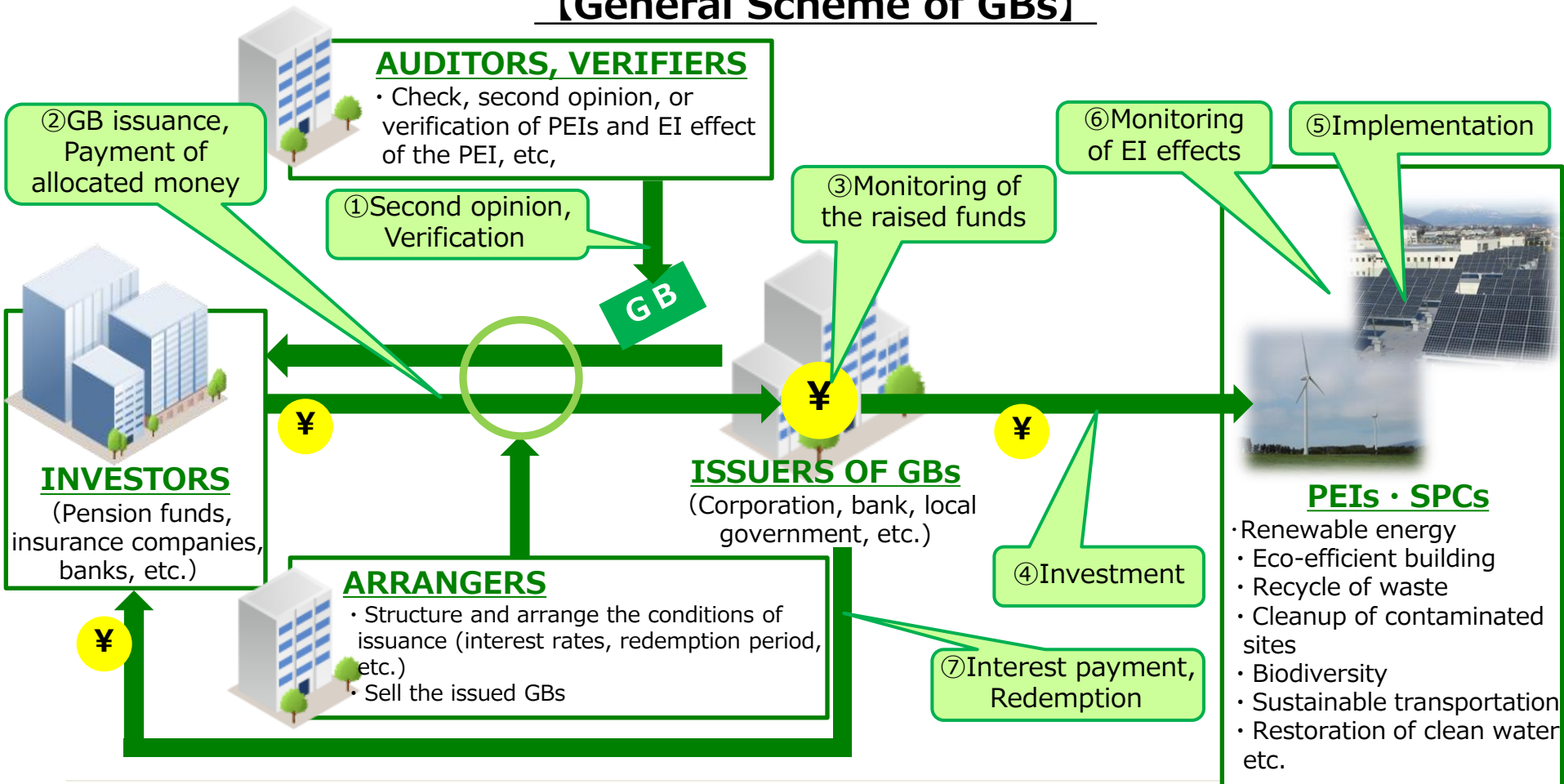
JGF Participated in the GIB Congress 2016



What is 'Green Bond' ?

- "Green bonds(GBs)" are the bonds issued by corporations and local governments to raise funds for Projects for Environmental Improvement (e.g. development of renewable energy, construction of eco-efficient building, restoration of clean water).

【General Scheme of GBs】



Promotion of Green Bonds

- Japan has few examples of GB issuance and investment. But recently, ESG investment is being diffused among institutional investors also in Japan, and GBs are gradually expanding.
- Tokyo Metropolitan Government considers its unique GB issuance. As a trial of that, “Tokyo Environment Supporter Bond” was issued in November 2016.
- MOE is to establish the “Green Bond Guideline” within FY2016 to promote GBs in Japan.

Examples of GBs* Issuance in Japan

DATE	ISSUER	AMOUNT	OBJECTIVES OF FUNDS
2014/10	Development Bank of Japan	EUR 250 million	Loan to buildings with DBJ Green Building certification
2015/10	Sumitomo Mitsui Banking Corporation	US\$ 500 million	Renewable energy development, and energy efficiency projects
2016/9	Mitsubishi UFJ Financial Group	US\$ 500 million	Renewable energy development, etc.
2015/10-present	Mega Solar Green Project Bond Trust	JPY 11 billion	Mega solar projects
2016/11/24-12/5	Tokyo Metropolitan Government	JPY 10 billion (AS\$ equi.)	Introduction of LED to TMG’s facilities, building of PVs, etc.

* Includes bonds which are not explicitly called as “Green Bonds”

Ultimate Goals Towards Sustainable Society through Environmental Finance

Environmental Finance;

- Promoting capital, loan and financial ways to create a sustainable market.

Finance = Blood of economic activity

Investment and loan directly used to reduce the environmental burden

Investment and loan used to evaluate and support the environmental consideration

Acceleration of finance to the environmental field

Shift to Sustainable economy