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Before IGES, she worked for Climate Policy Initiative in its San Francisco and Beijing offices, where her research focused on China's climate and energy related policies. She completed her undergraduate study at Fudan University in China and received an MS from Cornell University and a Ph.D. from Columbia University in the United States.

Supporting the transfer and diffusion of low carbon technologies: Japan's initiatives

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Outline

- Japanese leading low carbon technologies
- Programmes for technological renovation provided by Japanese NGOs/research institutes
- Japanese initiative on the Joint Crediting Mechanism (JCM)
- Financial schemes provided by the Japan International Cooperation Agency (JICA) and the Japan Bank for International Cooperation (JIBC)

1. Japanese low carbon technologies

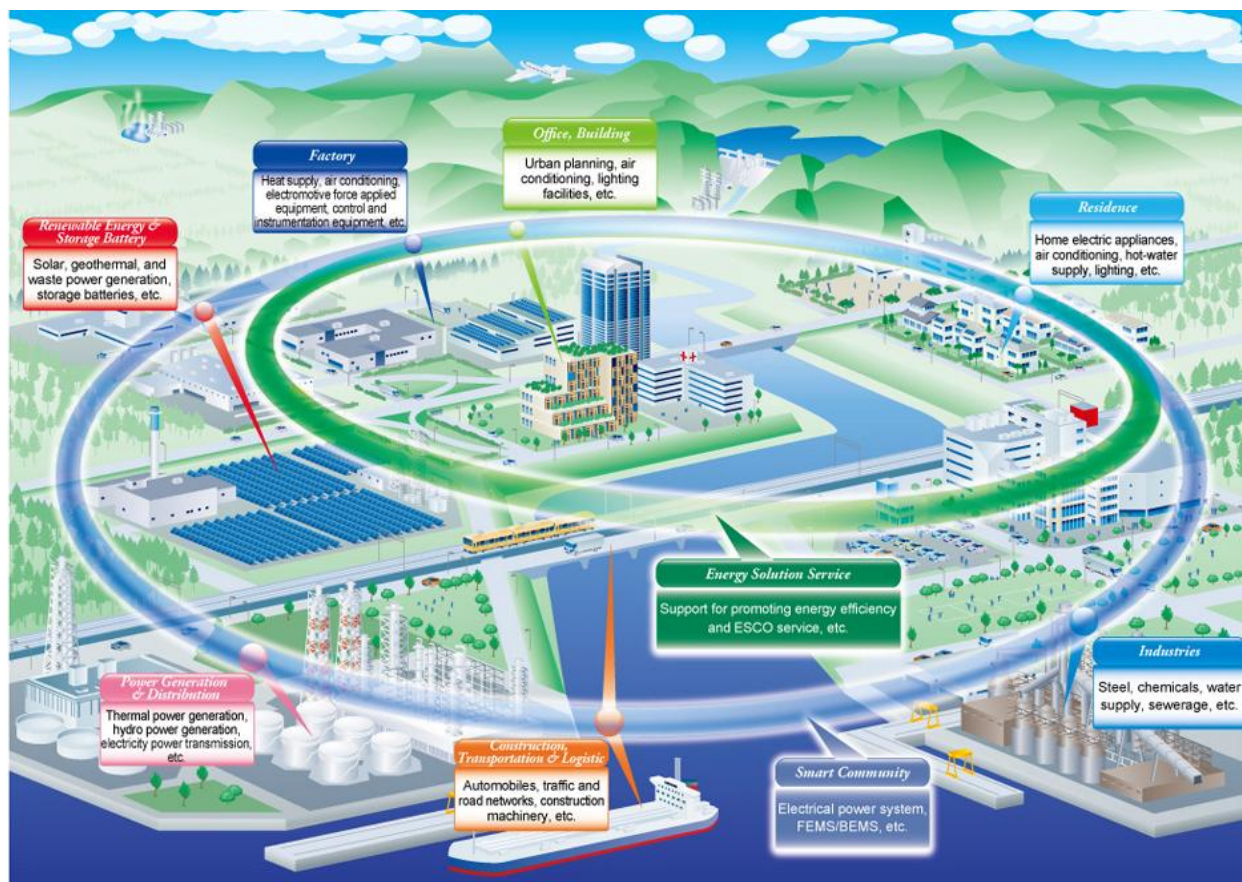
1-1. The Leading Low Carbon Technology (L2-Tech) JAPAN Initiative

- The L2-Tech JAPAN Initiative was launched in March 2014 by the Ministry of the Environment of Japan.
- L2-Tech represents a list of leading low carbon technologies that are classified into six fields.

Field	Sector
Industrial and commercial sector (cross-cutting)	Air conditioning, heat sources, etc.
Industry (sector-specific manufacturing equipment)	Iron and steel, chemical industry, paper and pulp manufacturing, petrochemical, glass manufacturing, automobile manufacturing, machinery, agriculture, horticulture, etc.
Transportation	Automobiles (passenger, commercial and heavy duty vehicles), bicycles, railways, shipping, and airplanes
Residential	Electrical appliances, water heaters, window glass, etc.
Energy conversion	Renewable energy, coal-fired power plants, natural gas fired power plants, etc.
Waste treatment and recycling	Municipal waste, industrial waste, material recycling, sewage treatment, sewage sludge treatment, etc.

Source: MOEJ (<https://www.env.go.jp/en/headline/2133.html>)

1-2. Japanese Business Alliance for Smart Energy Worldwide (JASE-W)



JASE-W categorisation:

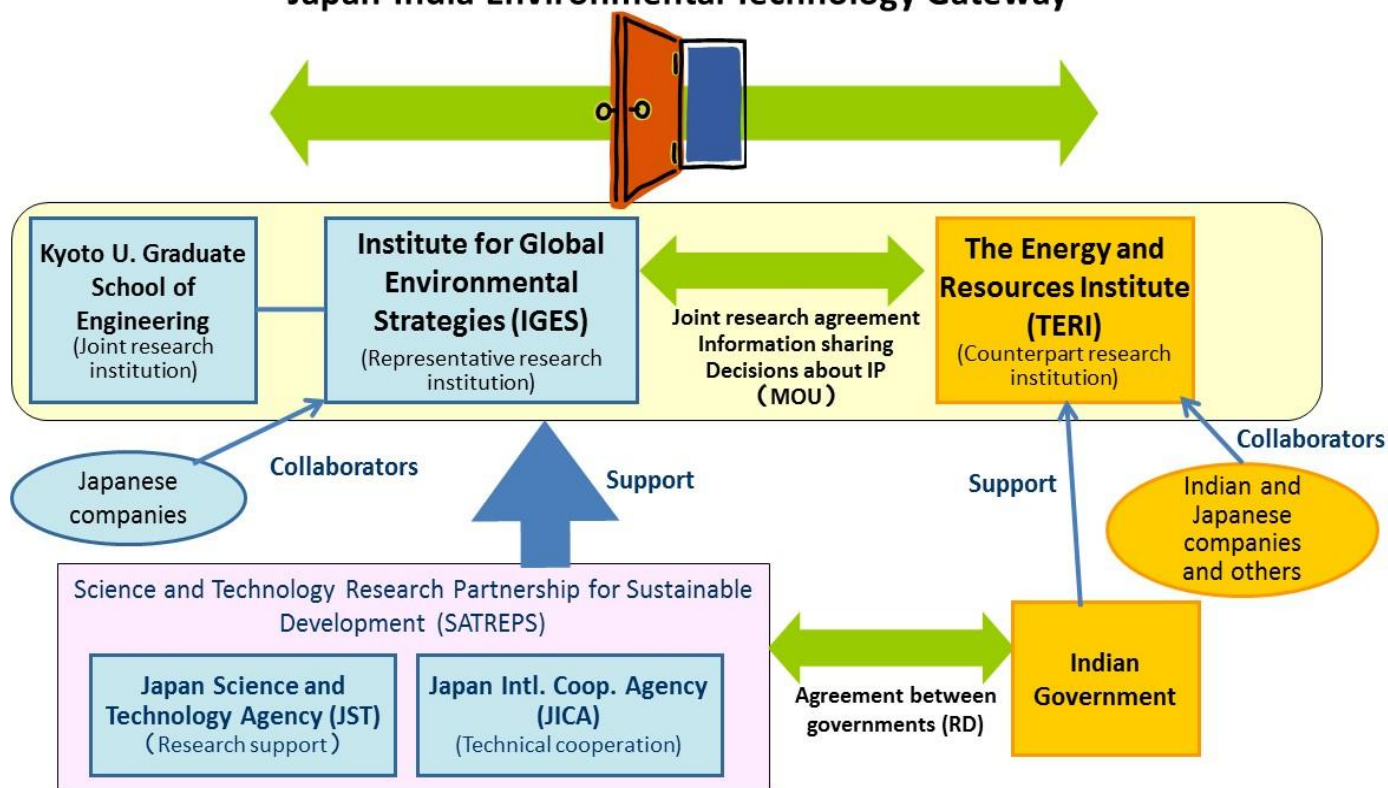
- Factory
- Office, building
- Residence
- Industries
- Smart Community
- Construction, transportation & logistic
- Power generation & distribution
- Renewable energy & storage battery

Source: JASE-W (<http://www.jase-w.eccj.or.jp/technologies/overview.html>)

2. Support initiatives provided by Japanese NGOs/research institutes

2-1. A matching platform for stakeholders between Japan and developing countries

Japan-India Environmental Technology Gateway

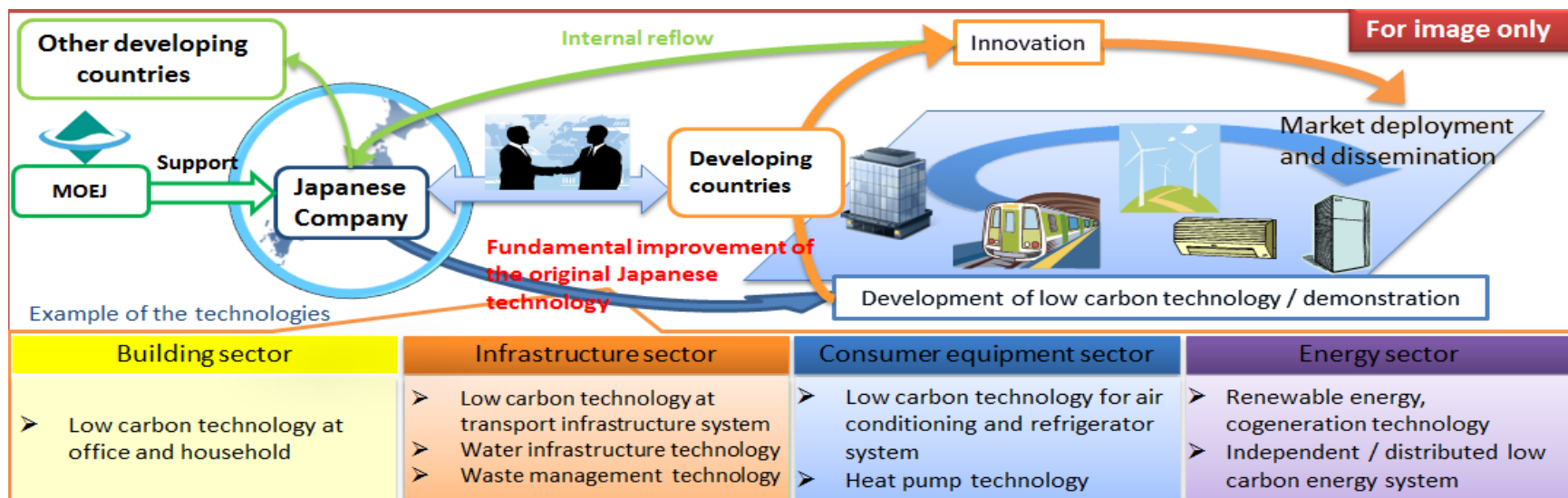


An IGES-TERI initiative for matching stakeholders in Japan and India to promote the application of Japanese low carbon technologies in Indian SMEs.

© IGES/KRC (2013)

2-2. A subsidy programme for the localisation of low carbon technologies in developing countries

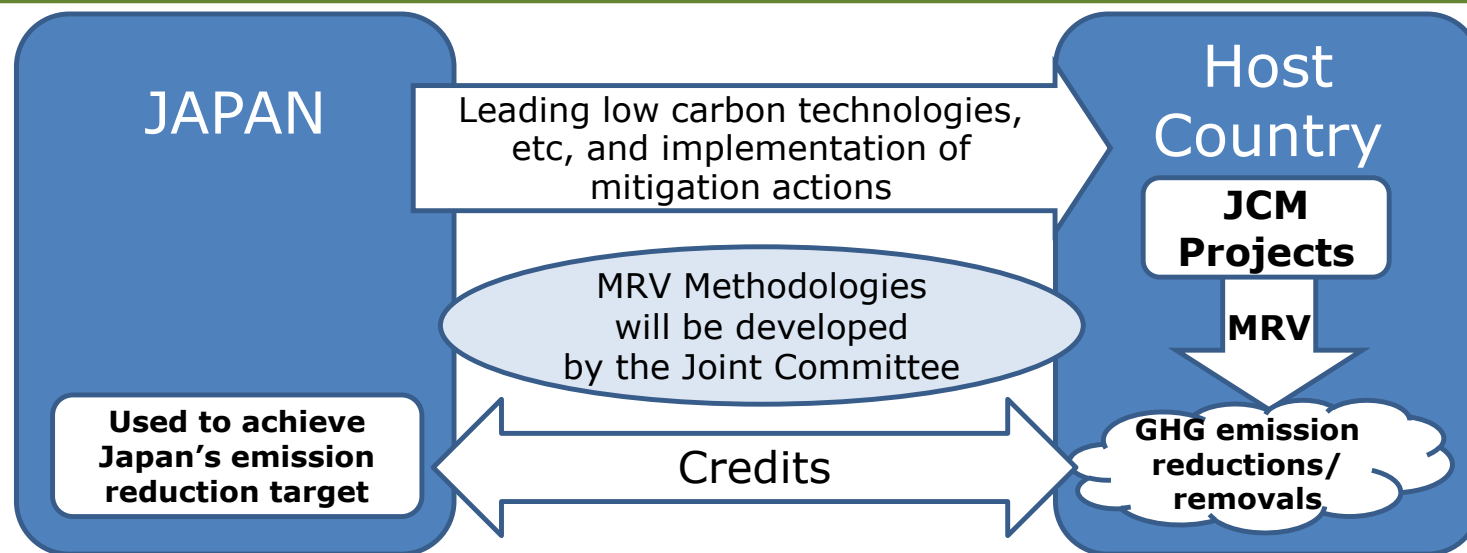
- The subsidy program of the Overseas Environmental Cooperation Centre (OECC) provides subsidies to private companies for the improvement of low carbon technologies to meet various requirements of developing countries, such as environmental regulations, cultural practices and restriction of energy resources.



Source: OECC (<http://oecc.or.jp/English/contents/contact/index.html>)

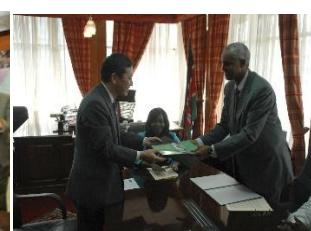
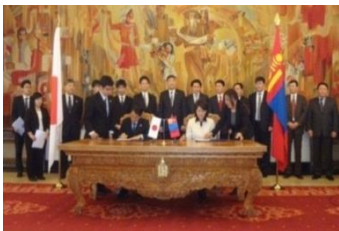
3. The Joint Crediting Mechanism (JCM)

3-1. Basic concept of the Joint Crediting Mechanism (JCM)



- Facilitating diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing countries.
- Appropriately evaluating contributions from Japan to GHG emission reductions or removals in a quantitative manner, by applying measurement, reporting and verification (MRV) methodologies, and use them to achieve Japan's emission reduction target.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals, complementing the CDM.

3-2. Japan signed the bilateral document for the JCM with 12 developing countries



Mongolia
Jan. 8, 2013
(Ulaanbaatar)

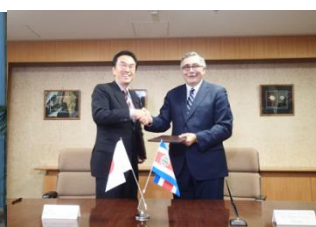
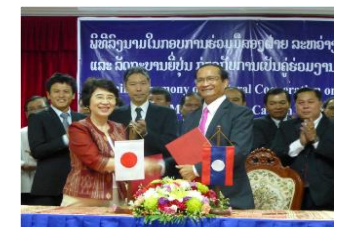
Bangladesh
Mar. 19, 2013
(Dhaka)

Ethiopia
May 27, 2013
(Addis Ababa)

Kenya
Jun. 12, 2013
(Nairobi)

Maldives
Jun. 29, 2013
(Okinawa)

Viet Nam
Jul. 2, 2013
(Hanoi)



Lao PDR
Aug. 7, 2013
(Vientiane)

Indonesia
Aug. 26, 2013
(Jakarta)

Costa Rica
Dec. 9, 2013
(Tokyo)

Palau
Jan. 13, 2014
(Ngerulmud)

Cambodia
Apr. 11, 2014
(Phnom Penh)

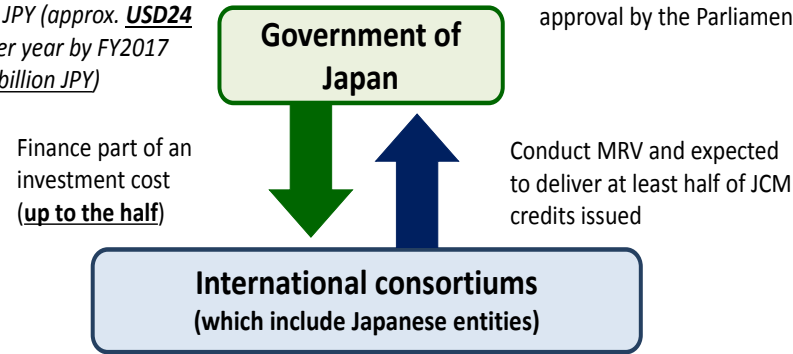
Mexico
Jul. 25, 2014
(Mexico City)

3-3. Two kinds of support for JCM projects: Financing programme and feasibility studies

I. Financing programme for JCM model projects

The draft budget for FY 2015
2.4 billion JPY (approx. **USD24 million**) per year by FY2017
(total **7.2 billion JPY**)

※Budget will be fixed after approval by the Parliament



Feasibility Studies

Objective

Elaborating investment plan on JCM projects, developing MRV methodologies and investigating feasibility on potential JCM projects,

Type of studies

JCM Project Planning Study (PS) To develop a JCM Project in the next fiscal year

JCM Feasibility Study (FS) To survey feasibility of potential JCM projects

Large Scale JCM Feasibility Study To survey feasibility of potential large scale JCM projects including city level cooperation

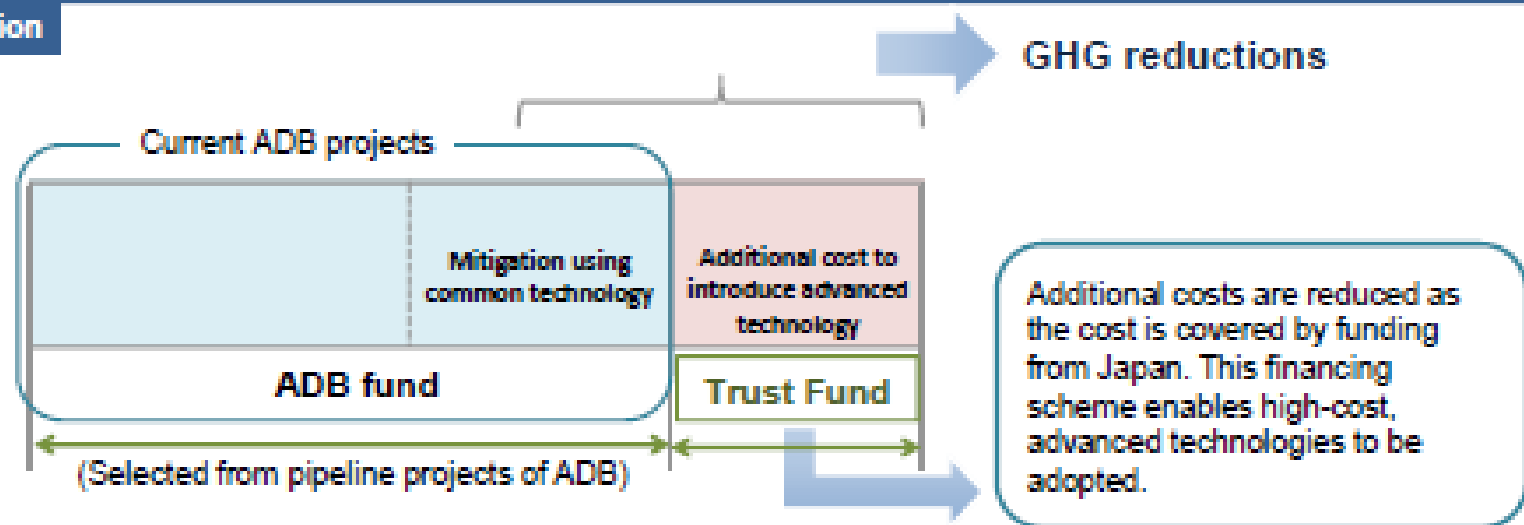
Reports

Available at GEC (Global Environment Centre Foundation) website <URL: <http://gec.jp>>

II. Feasibility studies and capacity building activities

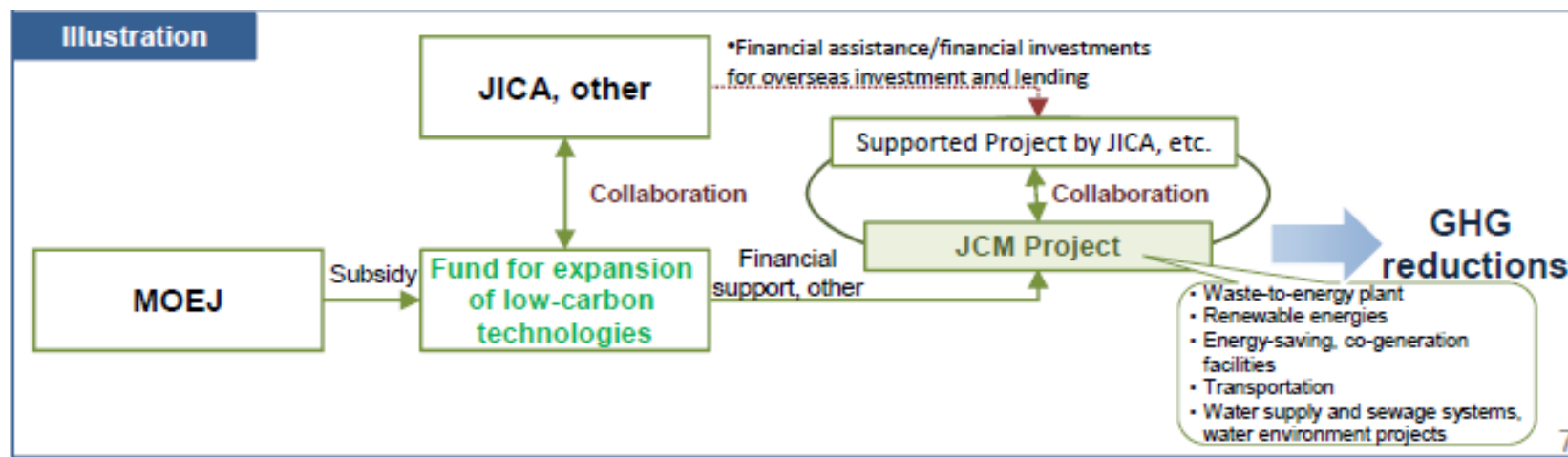
3-4. Financial support for leapfrog development under the JCM through the ADB

Illustration



- The MOEJ makes financial contributions to ADB's Trust Fund to assist ADB member countries which are also JCM countries in implementing superior and advanced low carbon technologies.
- These ADB projects will lead to leapfrog development in host countries and allow Japan to acquire credit using the JCM scheme.
- Draft budget for FY 2015 is JPY 1.8 billion (approximately USD 18 million).

3-5. Financial support for leapfrog development under the JCM through the JICA

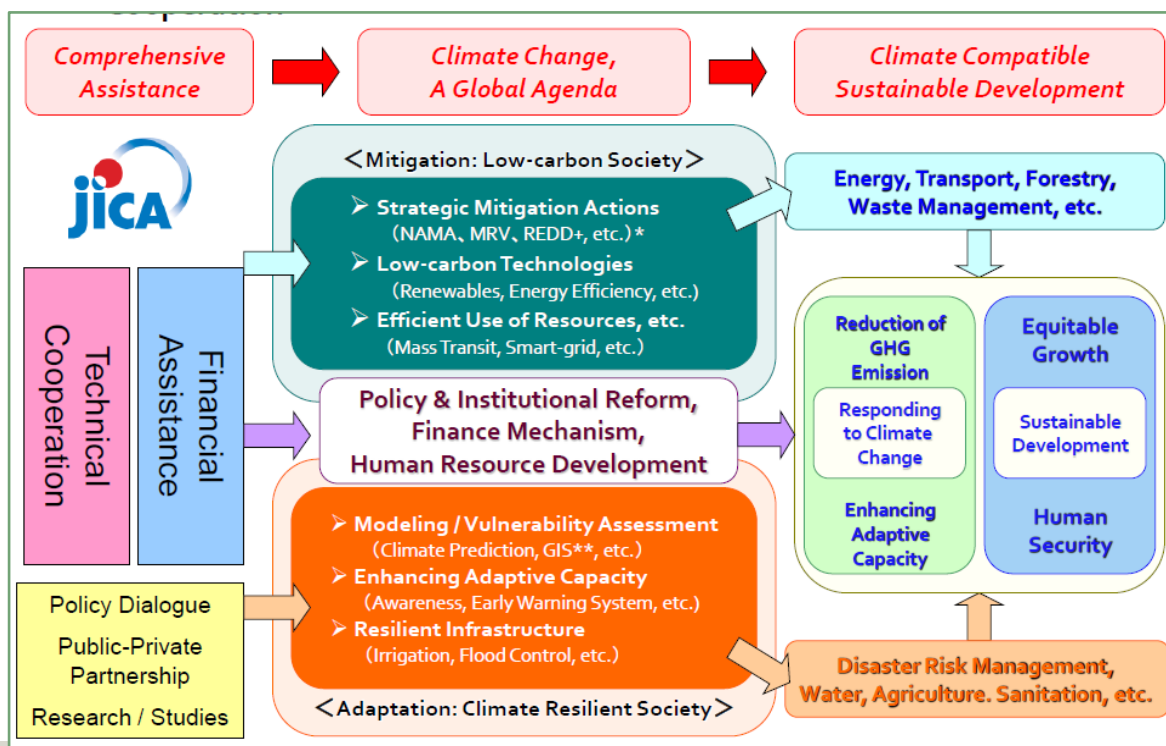


- To finance the projects which have the better efficiency of reducing GHG emissions in collaboration with other projects supported by JICA and other governmental-affiliated financial institutes.
- To expand superior and advanced low carbon technologies for building the low carbon society as the whole city wise and area wise in the wider fields and to acquire credits by the JCM.
- Draft budget is JPY 1.8 billion per year by FY 2018 (total JPY 7.2 billion).

4. Financial schemes of JICA and JIBC

4-1. Japan International Cooperation Agency (JICA)

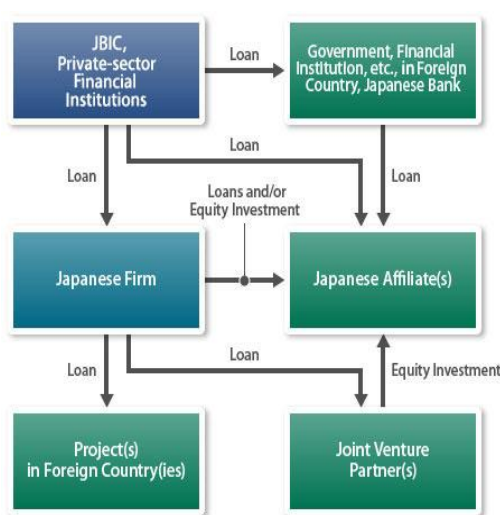
- JICA supports low carbon and climate resilient development of partner countries, taking advantage of Japan's technologies and experience, and provides financial and technical assistance that responds to diverse and multifaceted needs of developing countries.



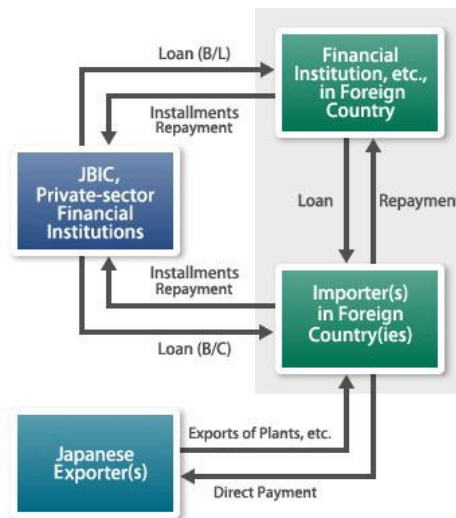
Source: COP20 side event, 6th Dec. 2014, Japan Pavillion, Tomonori Sudo. Ph.D.,

4-2. Japan Bank for International Cooperation (JIBC)

- JIBC launched Global Action for Reconciling Economic Growth and Environmental Preservation (GREEN) operations that focus its financing on projects seeking to preserve the global environment, such as those reduce GHG emissions by propagating advanced Japanese environmental technologies across the world.

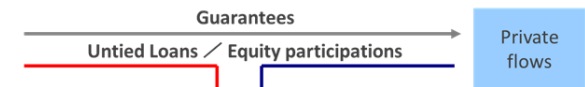


A. Overseas investment loans



B. Export loans

JIBC GREEN (Global action for Reconciling Economic growth and Environmental preservation) operation aims to promote the overseas business having the purpose of preserving the global environment, such as preventing global warming.



Eligible Entity:
Foreign government, governmental agencies or local governments, public enterprises such as utilities operating closely with government, Foreign Financial Institutions, multilateral Institutions

Eligible Projects:

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

* JIBC methodology for Measurement, Reporting and Verification for GHG emission reductions.

C. Green united loans

Source: IGES (2015). Supporting the transfer and diffusion of low carbon technologies: Japan's initiatives



Thank you very much for your attention

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