



Japanese Efforts to Promote Subnational Climate Action

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1. Local Environmental Governance in 1950s – 1990s

Pioneering role in pollution control and nature protection



- Local governments have taken the lead in their jurisdiction in response to the demands of local residents.
- Many local governments enacted a decree for the prevention of environmental pollution before the national legislation.
- It became a practice to establish divisions and departments specializing in environmental pollution in the 1955-64 period.

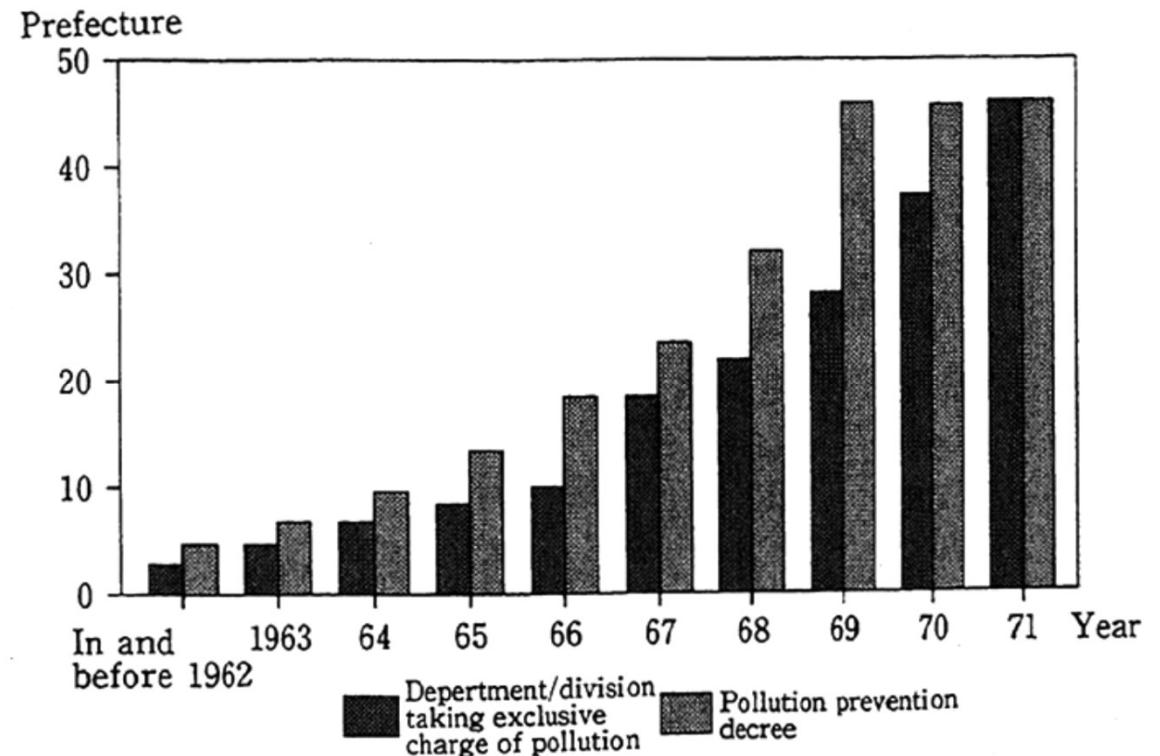


Fig. Prefectural Departments/Divisions Taking Exclusive Charge of Pollution and Enactment of Pollution Prevention Decrees (Aggregate total)

Pioneering role played by local governments



- **1949 Tokyo Metropolitan Government: "Factory Pollution Prevention Ordinance"**
- **1952 Shimane Prefecture: a pollution prevention agreement with a local factory,**
many local governments later adopted this approach.
- **1975-1984 Kawasaki City and other local governments: a pioneering approach to environmental impact assessments**
- **1970 Hokkaido: a nature protection ordinance**

- **1967 the Basic Law for Environmental Pollution Control**
- **1970 the so-called "Pollution-oriented Diet session" held:**
 - enacted new laws on water pollution, waste, marine pollution, etc.
 - revised the Basic Law, air pollution, noise, pesticide, sewage, etc.
- **1972 the Natural Environment Conservation Law**

Global Environmental Protection Measures in progress (1980s-)

June 1982	In commemoration of the 10th anniversary of the founding of the U.N. Conference on the Human Environment, the Governing Council of the U.N. Environment Program (UNEP) holds a special meeting under its sponsorship to adopt the Nairobi Declaration.
Mar. 1985	The Vienna Convention for Protection of the Ozone Layer is adopted.
Apr. 1987	The World Commission on Environment and Development (WCED) releases its report Our Common Future to advocate the concept of "sustainable development."
Sept. 1987	The Montreal Protocol on Substances That Deplet the Ozone Layer is adopted.
Mar. 1989	The Environmental Summit is held in The Hague, the Netherlands to adopt the Hague Declaration on measures against global warming.
July 1989	In the Economic Declaration of the Archa G7 Summit, environmental issues are significantly closed up.
Sept. 1989	The Tokyo Conference for Conservation of the Global Environment is held.
Nov. 1989	The Environmental Summit is held Noordwijk (the Netherlands) to adopt the Noordwijk Declaration on air pollution and climate change.
Dec. 1989	The U.N. General Assembly adopts a resolution to hold the Earth Summit (U. N. Conference on Environment and Development [UNCED]) in Brazil.
July 1990	In the Economic Declaration of the Huston Summit, the reaching of agreement on forest conservation is advocated.
Mar. 1991	With the outbreak of the Gulf War, environmental disruption occurred to serious proportions. New concern is expressed about the problem of the global environment.
Apr. 1992	The Eminent Persons' Meeting on Financing Global Environment and Development is held in Tokyo.
May 1992	The Basel Convention on the Control of the Trans-boundary Movement of Hazardous Wastes and Their Disposal comes into effect. the U.N. Framework Convention on Climate Change is adopted in New York. The Convention on Biodiversity is adopted in Nairobi.
June 1992	The Earth Summit (U.N. Conference on Environment and Development [UNCED]) is held in Rio de Janeiro (Brazil).

Source: Quality of the Environment
in Japan 1993

Global Environmental Protection Measures in Progress



- The issue of **global environmental protection** has also become one of the **issues** that local governments are actively addressing.
- Local governments are beginning to create **international networks and cooperate with each other.**
(e.g. joining ICLEI)
- It is significant for local governments in different countries **to promote international exchanges and cooperation** to address common challenges.

Source: Quality of the Environment in Japan 1993

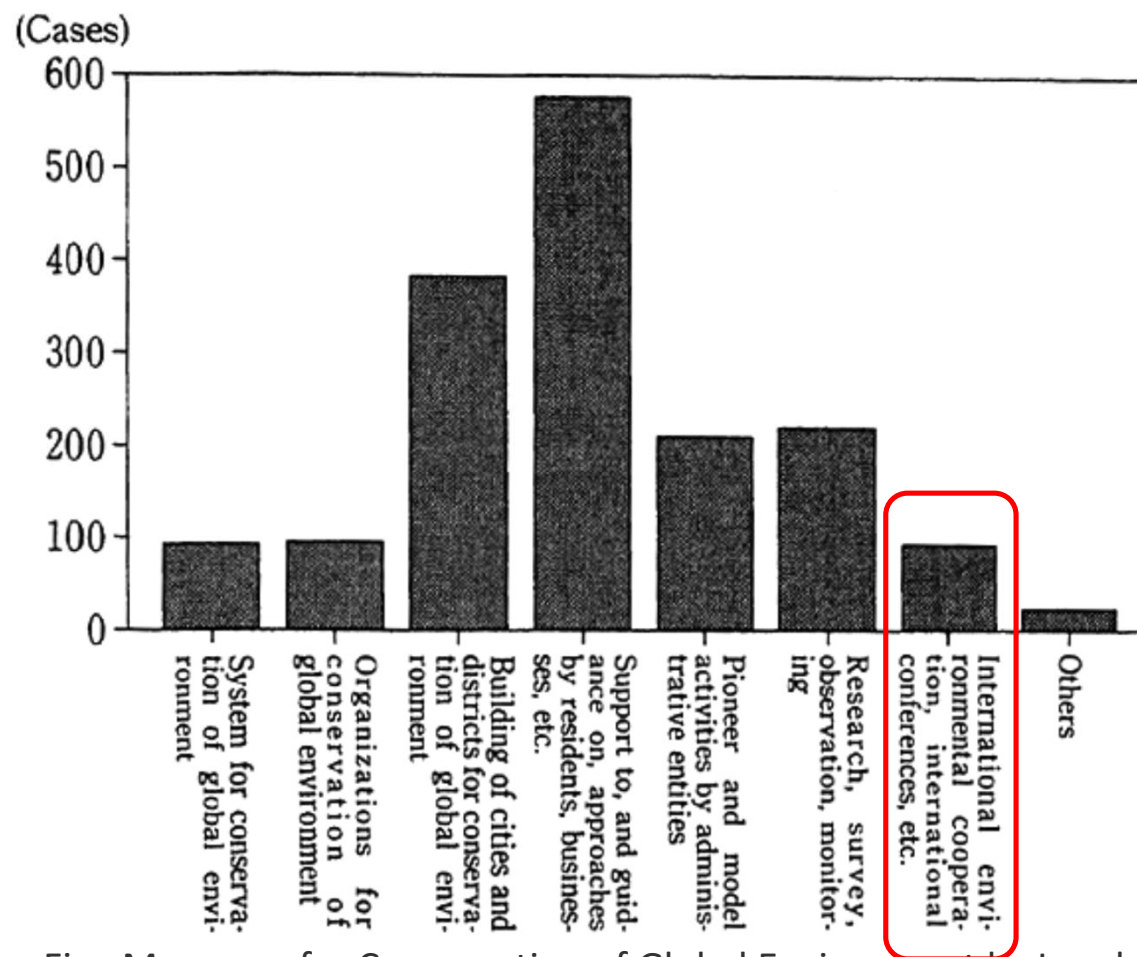


Fig. Measures for Conservation of Global Environment by Local Governments (Prefectures and Administrative Ordinance-designated Cities)

2. The importance of Local decarbonization

B.2.3 The global share of emissions that can **be attributed to urban areas is increasing**. In 2015, urban emissions were estimated to be 25 GtCO₂-eq (about 62% of the global share) and **in 2020, 29 GtCO₂-eq (67-72% of the global share)**. The drivers of urban GHG emission are complex and include population size, income, state of urbanisation and urban form.

C.6.1 In modelled scenarios, **global consumption-based urban CO₂ and CH₄ emissions are projected to rise** from 29 GtCO₂-eq in 2020 to **34 GtCO₂-eq in 2050 with moderate mitigation efforts** (intermediate GHG emissions, SSP2-4.5), and up to 40 GtCO₂-eq in 2050 with low mitigation efforts (SSP 3-7.0). With ambitious and immediate mitigation efforts, including high levels of electrification and improved energy and material efficiency, global consumption-based urban CO₂ and CH₄ emissions could be **reduced to 3 GtCO₂-eq in 2050 in the modelled scenario with very low GHG emissions (SSP1-1.9)**.

Multilevel Climate Action



- Multi-level actions by relevant stakeholders including national governments, subnational governments, civil society organisations, business sectors, citizens and Indigenous Peoples, other key partners are crucial in advancing climate actions.



Sapporo

G7 Ministers' Meeting on Climate,
Energy and Environment

Subnational actions: Acknowledging the vital role of subnational actors in realizing the transformation toward net-zero, climate-resilient, circular, and nature positive economies, furthering socioeconomic opportunities based on local capacity, needs and individual environmental conditions, we resolve to catalyze support for actions by subnational actors, encourage sharing best practices and promote city-to-city cooperation.

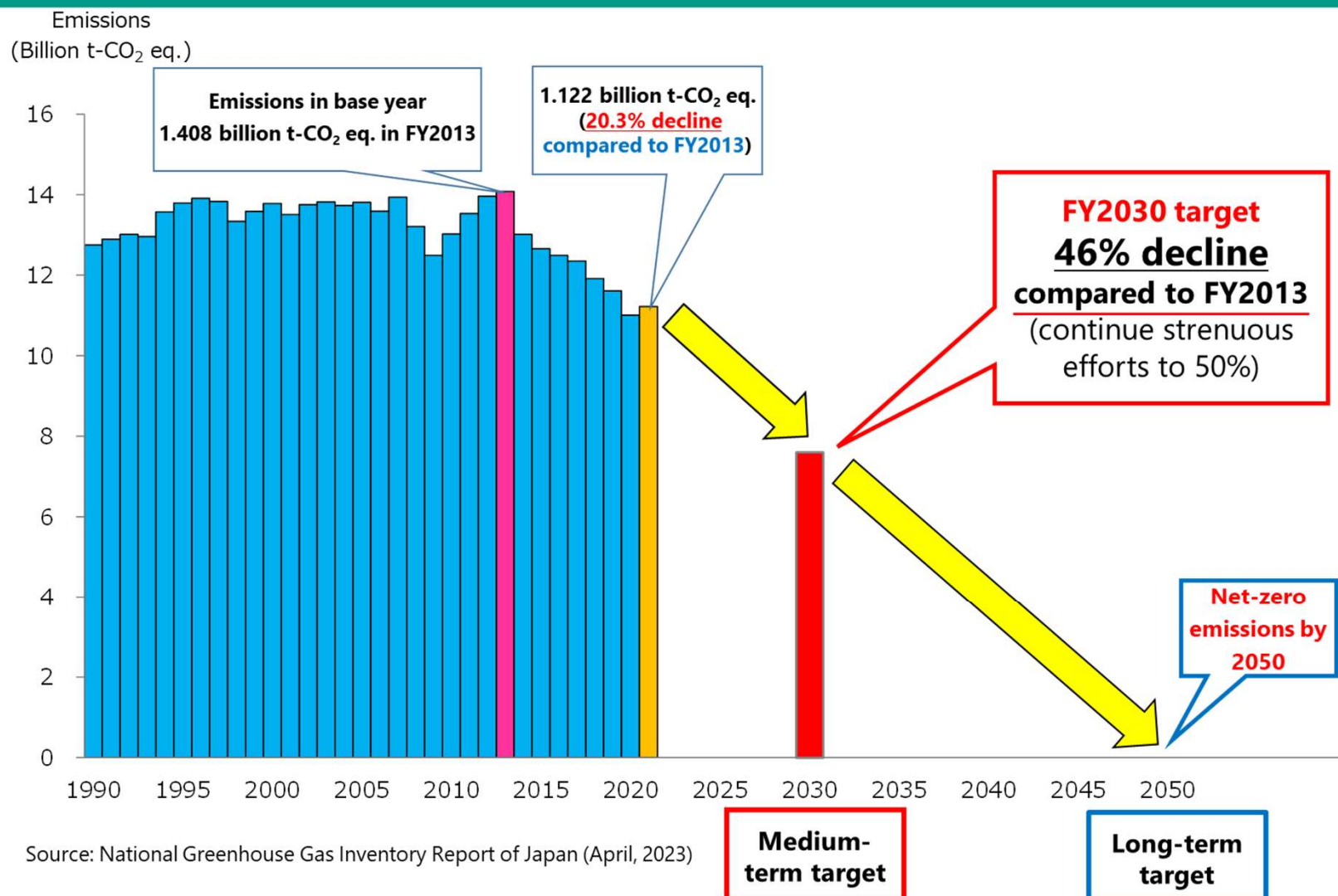
Acknowledges the important role and active engagement of non-Party stakeholders, particularly civil society, business, financial institutions, cities and subnational authorities, Indigenous Peoples, local communities, youth and research institutions, in supporting Parties and contributing to the significant collective progress towards the Paris Agreement temperature;

Encourages international cooperation and the exchange of views and experience among non-Party stakeholders at the local, subnational, national and regional levels, including conducting joint research, personnel training, practical projects, technical exchanges, project investment and standards cooperation;



COP28
UAE

Japan's Medium- and Long-term Targets for GHG Reduction



Revision of Global Warming Countermeasure Plan Cabinet Decision on Oct 22, 2021



■ Government's comprehensive plan based on Act on Promotion of Global Warming Countermeasures

Plan was revised to achieve the **declaration of "net-zero emissions by 2050" and 46% reduction target *for FY2030.**

※Japan's mid-term goal is to reduce greenhouse gas emissions by 46% from FY2013 levels in FY2030. We will also continue to take on the challenge of achieving 50% reduction.

Greenhouse Gas Emissions and Removal (Unit: 0.1 billion t-CO ₂)		2013 Emission Results	2030 Emissions	Reduction Rate	Previous goal
		14.08	7.60	▲46%	▲26%
Energy-derived CO ₂		12.35	6.77	▲45%	▲25%
Sector	Industry	4.63	2.89	▲38%	▲7%
	Business & others	2.38	1.16	▲51%	▲40%
	Household	2.08	0.70	▲66%	▲39%
	Transportation	2.24	1.46	▲35%	▲27%
	Energy conversion	1.06	0.56	▲47%	▲27%
Non-energy-derived CO ₂ , methane, N ₂ O		1.34	1.15	▲14%	▲8%
HFC and other 4 gases (CFCs)		0.39	0.22	▲44%	▲25%
Removal		-	▲0.48	-	(-0.37 bn t-CO ₂)
Joint Credit Mechanism (JCM)		We aim to achieve international emission reductions and removal of about 100 million t-CO ₂ cumulatively by FY2030 through public-private partnership. The credits acquired by Japan will be counted appropriately to achieve Japan's NDCs.			-

Main policies & measures of the Plan

Renewable energy, Energy conservation

- Local governments **set up promotion areas** based on the revised Act.
 - ➔ Expansion of renewable energies that bring benefits to the local community (e.g. **PV**)
- Expansion of the obligation to comply with **energy-saving standards** for **houses and buildings**

Industrial, Transport, etc.

- Support for innovation towards 2050
 - ➔ **2 trillion-yen fund** that supports R&D and implementation in society in priority fields such as **hydrogen and storage batteries**
- R&D and social demonstration support for energy saving of more than 30% in data centers

Cross-sectional Strategies

- **Creation of more than 100 "leading decarbonised regions" by 2030 (Regional Decarbonisation Roadmap)**
- Emission reduction in developing countries through the use of advanced decarbonisation technologies
 - ➔ Contributing to global reduction through the "Joint Crediting Mechanism: JCM"

3 . Japanese Efforts to Promote Subnational Climate Action

(1) Decarbonization Leading Areas

(2) City-to-City Collaboration Program

Regional Decarbonization Roadmap



■ To achieve **Carbon Neutrality in 2050** and a 46% Reduction of GHG in 2030, the Roadmap was formulated on June 2021.

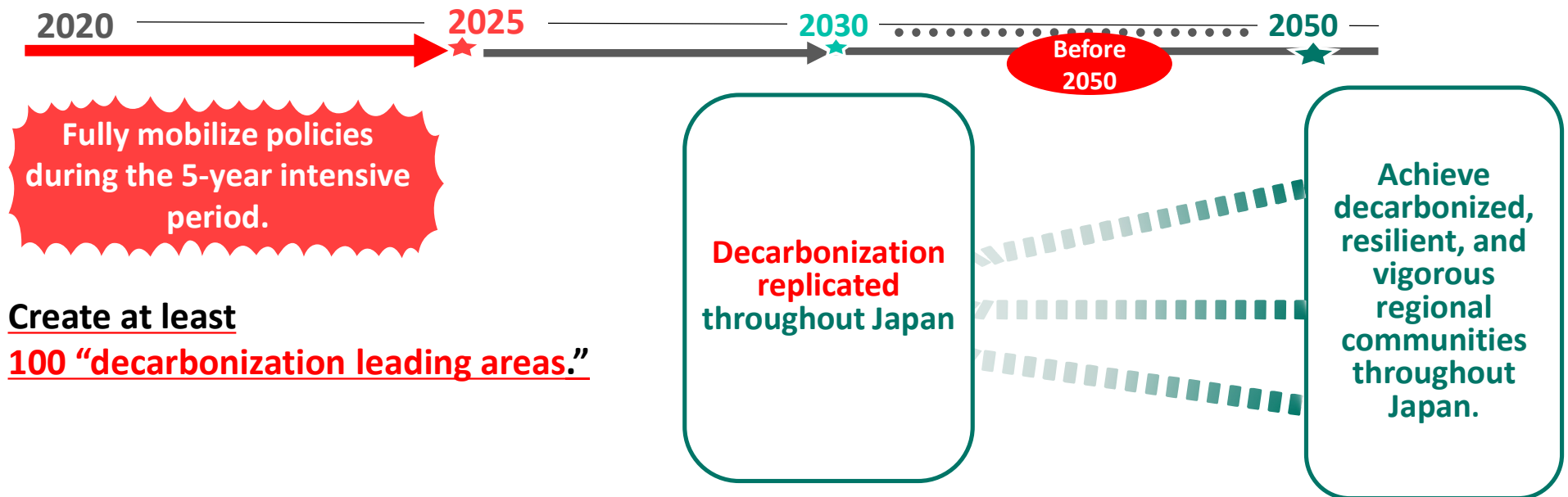
Key Message

- Regional decarbonization is a regional **growth strategy**.
- Decarbonization can simultaneously **address socio-economic challenges in the region** with the best use of regional resources, such as renewable energy and human capital.
- Every municipality can take initiatives from utilizing current technologies (**best available technologies**).

Decarbonization Leading Areas

- Decarbonization Leading Areas aim to **achieve the goal of its decarbonization by FY2030.**
- MOEJ is to create models of decarbonization in diverse areas such as urban, agricultural, and tourist areas.

Specific Measures to Achieve the Roadmap



Decarbonization Leading Areas

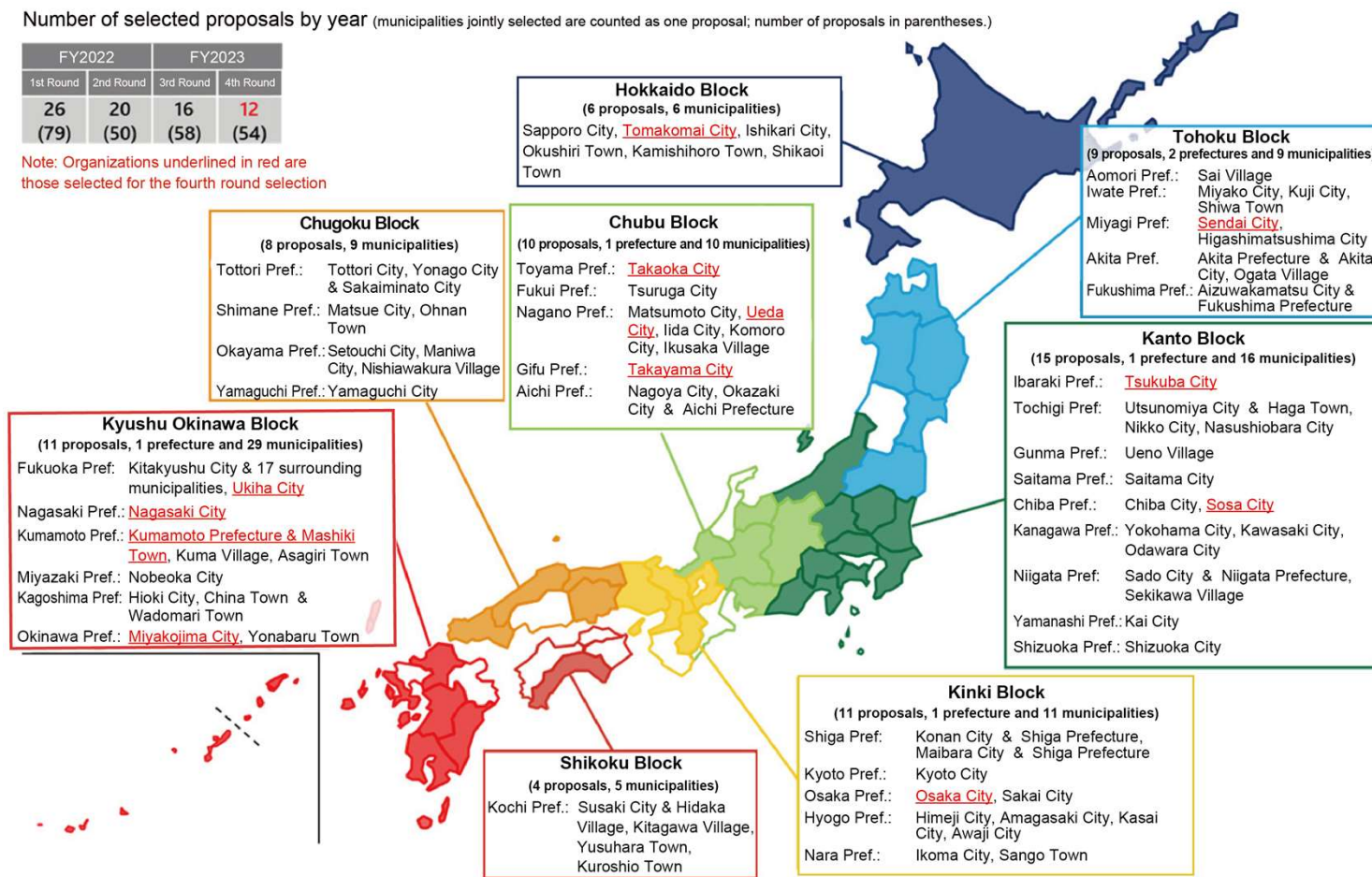


■ **74 areas** from 36 prefectures and 95 municipalities across Japan have been selected.

Number of selected proposals by year (municipalities jointly selected are counted as one proposal; number of proposals in parentheses.)

FY2022		FY2023	
1st Round	2nd Round	3rd Round	4th Round
26	20	16	12
(79)	(50)	(58)	(54)

Note: Organizations underlined in red are those selected for the fourth round selection



Decarbonization Leading Areas (cases)

- Create **advanced models of decarbonization** in diverse areas such as urban, agricultural, and tourist areas

Biogas power generation from livestock manure (Kamishihoro Town, Hokkaido)



Biogas power generation facilities

Resource Recycling x Decarbonization (Maniwa City, Okayama)

Efforts in food and agriculture sector toward zero carbon

Scheduled to operate in 2024



Food waste recycling facilities

Operational capacity: 36,000kl/year

Production capacity of liquid fertilizer: 8,000 ton/year

Decarbonization of cities with heavy consumption of energy (Yokohama City, Kanagawa)



Coastal area including commercial facilities in Yokohama

Decarbonization of the Cultural Heritage of Ancient Kyoto (Kyoto City, Kyoto)



Fujinomori Shrine



Daigoji Temple

Support for Local Governments



- **Capacity development** of local governments and the private sector
- **Knowledge support** incl. RE potential and local economic analysis
- **Financial support** to empower local governments and attract private sector investment for decarbonization projects

1.Subsidy for promoting local decarbonization actions

Subsidy to local governments which implement local decarbonization actions
Budgets in 2023: **35 billion JPY (250 million USD)**

2.Japan Green Investment Corp. for Carbon Neutrality (JICN)

Financial support for corporations which implement decarbonization projects
Budgets in 2022: up to **40 billion JPY (286 million USD)** + the government guarantee (less than 5 years) of **20 billion JPY(143 million USD)**.

City-to-City Collaboration Program



- Support **city-to-city collaboration between cities in Japan and abroad** to promote **sharing of knowledge and experience** for decarbonization in partnership with private solution providers.

<Cooperation activities>

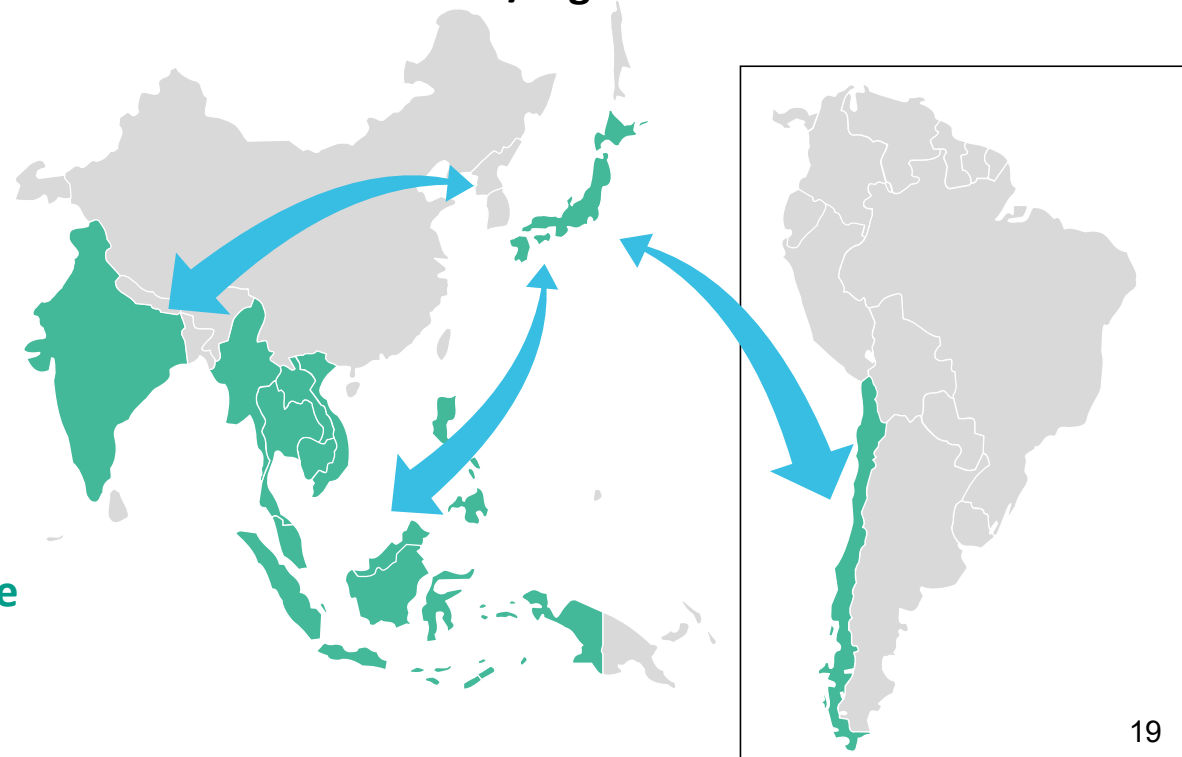
- Co-create low-carbon projects
- Support developing policies and plans to promote climate actions
- Build capacity for government staff
- Raise awareness of stakeholders



<Expected outcomes>

- Deliver net-zero commitment
- Deploy decarbonized technologies/infrastructure
- Develop action plans and regulations

Partnering **20** Japanese cities
with **49** cities/regions in **13** countries



City-to-City Collaboration Program



20 Japanese subnational governments with
49 subnational governments in **13** countries

Partner city Japanese city

Maldives

1	Malé City	Toyama City
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India

2	Bangalore City	Yokohama City
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Myanmar

3	Yangon Region	Kitakyushu City
4	Yangon City	Kawasaki City
5	Ayeyarwady Region	Fukushima City
6	Sagaing Region	Fukushima City
7	Mandalay City	Kitakyushu City
8	Yangon City	Fukuoka City

Mongolia

9	Ulaanbaatar City	Sapporo City・Hokkaido Government
10	Ulaanbaatar City・Tuv aimag Prefecture	Sapporo City
11	Ulaanbaatar City	Sapporo City

Lao PDR

12	Vieng chan City	Kyoto City
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Vietnam

13	Hai Phong City	Kitakyushu City
14	Da Nang City	Yokohama City
15	Ho Chi Minh City・Thu Duc City	Osaka City
16	Kiên Giang Province	Kobe City
17	Can Tho City	Hiroshima Prefecture
18	Soc Trang Province	Hiroshima Prefecture
19	Hanoi City	Fukuoka Prefecture
20	Quang Ninh Province	Shiga Prefecture
21	Ba Ria-Vung Tau Province	Sakai City
22	Ben Tre Province	Ehime Prefecture

Thailand

23	Bangkok Metropolitan Administration	Yokohama City
24	Rayong Prefecture	Kitakyushu City
25	Chiang Mai Prefecture	Kitakyushu City
26	Eastern Economic Corridor (EEC)	Osaka City
27	Ubon Ratchathani Province・Warin Chamrap Town Municipality	Kitakyushu City

Cambodia

28	Phnom Penh Capital Administration	Kitakyushu City
29	Siem Reap Province	Kanagawa Prefecture

Malaysia

30	Iskandar Development Area	Kitakyushu City
31	Iskandar Development Area・Kota Kinabalu City	Toyama City
32	Penang State	Kawasaki City
33	Kuala Lumpur City	Tokyo・Saitama City
34	Iskandar Development Area	Toyama City

Indonesia

35	Denpasar City	Clean Authority of Tokyo
36	Surabaya City	Kitakyushu City
37	Batam City	Yokohama City
38	Semarang City※	Toyama City
39	Bandung City	Kawasaki City
40	Special Capital Territory of Jakarta	Kawasaki City
41	Bali Province※	Toyama City
42	Rokan Hulu Prefecture, Riau Province・Pekanbaru City	Kawasaki City
43	Gorontalo Province	Ehime Prefecture
44	West Java Province	Kitakyushu City

※ Joint project for Bali and Semarang

Philippines

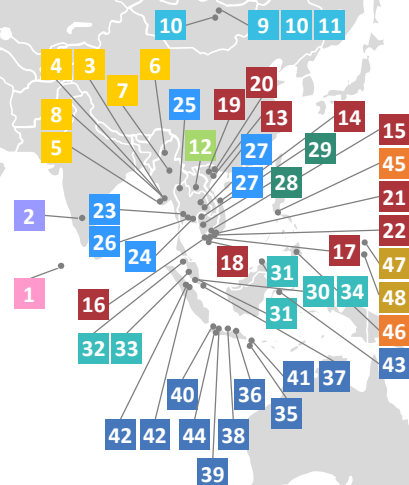
45	Quezon City	Osaka City
46	Davao City	Kitakyushu City

Palau

47	Koror Province	Kitakyushu City
48	Airai Province	Urasoe City

Chile

49	Renca Municipality, Santiago City,	Toyama City
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49

Red: Ongoing projects in FY2023 20

City-to-City Collaboration Program



- Through City-to-City collaboration projects, Japanese systems and initiatives have been shared to meet the needs of these countries and cities, thereby encouraging zero carbon pledges and implementation of their priorities.

Announcement on zero carbon supported by institutional transfer (Tokyo Metropolitan Government • Saitama City and Kuala Lumpur City)



TMG
Saitama City



Kuala Lumpur
City



<Details of collaboration>

- ✓ Transfer of TMG's green building system
- ✓ Development of zero carbon scenario in KL
- **KL announced its commitment to be carbon neutral by 2050**
- **Saitama city shares their know-how on "Decarbonization Leading Areas" to KL**

Roll-out of the introduction of decarbonized infrastructure (Yokohama City and Da Nang City)



Yokohama
City



Da Nang
City



MoU on technical cooperation on sustainable urban development (2013.4)

<Details of collaboration>

- ✓ Study on introduction of energy-saving equipment into water supply projects
- **Applying decarbonized technologies with JCM grants**
Installation of energy efficient pumps in Water Supply Joint Stock Company Da Nang
- **Replicating similar projects in other cities**
Energy efficient water intake pumps at the Ho Chi Minh City Water Treatment Plant



Thank you for your attention