JCCI
JICA Clean City Initiative

JCCI International Seminar 2025

JICA

Progress and Future Development of JICA Clean City Initiative (JCCI)

SUSTAINABLE DEVELOPMENT GOALS

Japan International Cooperation Agency (JICA) supports Sustainable Development Goals (SDGs).

OUTLINE

1. Overview of JICA Clean City Initiative (JCCI)
2. Major progress of JCCI in first 3 years
   - JCCI in numbers
   - Major developments
   - Typical cases and approaches
3. Way forward

OUTLINE

1. Overview of JICA Clean City Initiative (JCCI)

JICA Global Agenda: 20 strategies to impact on global issues

Twenty cooperation strategies for global issues in four categories

Prosperity
1 Urban and Regional Development
2 Transportation
3 Energy and Mining
4 Private Sector Development
5 Agriculture and Rural Development (Sustainable Food Systems)

People
6 Health
7 Improving Nutrition
8 Education
9 Social Security, Disability, and Development
10 Sport and Development

Peace
11 Peacebuilding
12 Governance
13 Public Finance and Financial Systems
14 Gender Equality and Women's Empowerment
15 Digital for Development

Planet
16 Climate Change
17 Natural Environment Conservation
18 Environmental Management
19 Sustainable Water Resources Management and Water Supply
20 Disaster Risk Reduction through Pre-disaster Investment and Build Back Better

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16 Climate Change

Confronting the threat of climate change with partner countries

The global community must mitigate climate change—which has an enormous negative impact on the economy and society—by drastically reducing greenhouse gas emissions. At the same time, it must also adapt to climate change. JICA will contribute to solving global issues in cooperation with partner countries that face the daunting task of addressing development and climate change simultaneously.

APPROACHES
1. Promoting the implementation of the Paris Agreement
2. Promoting the co-benefits approach to climate change countermeasures

17 Natural Environment Conservation

Inheriting the bounty of nature to the future generations

JICA is committed to conserving the natural environment, which is important for local communities and for a sustainable global environment. Based on scientific evidence, JICA identifies natural assets that should be protected and assesses their value and current status. It also works with local communities, and utilizing traditional knowledge, aims to balance environmental conservation with human activity [➡ see page 34].

APPROACHES
1. Protecting the richness of nature on the land
2. Protecting the richness of nature in marine and coastal areas

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18 Environmental Management: JICA Clean City Initiative

Prevent environmental pollution to create clean cities for healthy lives

In many partner countries, industrialization and urbanization are progressing without environmental measures, causing serious contamination of water, air, and soil and damaging people's health. Through measures such as waste management and the prevention of water and air pollution, JICA cooperates in creating clean cities and aims to build sustainable societies.

APPROACHES
1. Improving waste management and promoting a sound material-cycle society
2. Promoting a healthy environment through appropriate environmental regulations and pollution-control measures

19 Sustainable Water Resources Management and Water Supply

For a society with safe water for all people

JICA helps strengthen the organizations responsible for managing water resources and establish mechanisms for democratic consensus-building among stakeholders in order to resolve issues on water resources in the field. JICA creates "growing water utilities" capable of self-sustaining expansion and improvement of water supply services [➡ see page 35].

APPROACHES
1. Resolving issues on water resources in the field through integrated water resources management
2. Supporting the growth of water utilities

20 Disaster Risk Reduction through Pre-disaster Investment and Build Back Better

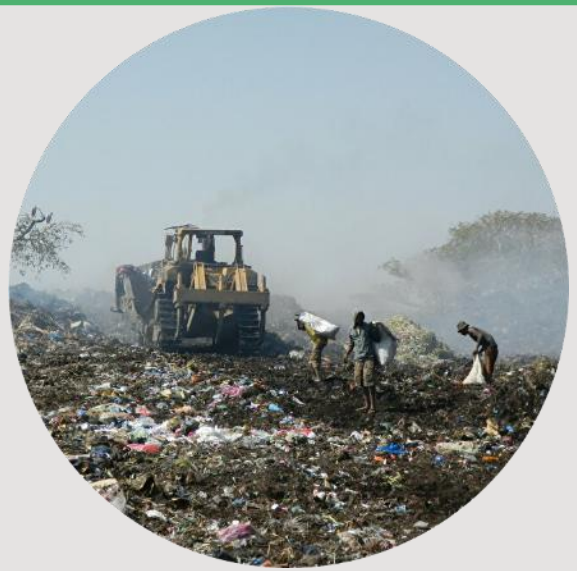
Building nations' resilient foundation for saving lives and developing economy

Disaster risk reduction (DRR) is the basis for development as it saves people's lives and livelihoods. JICA supports programs on strengthening the capacity of partner countries to augment pre-disaster investment in DRR for the future. By 2030, JICA aims to bring about a downward global trend in the number of deaths, people affected, and economic losses caused by natural hazards.

APPROACHES
1. Promoting structural measures to support the nation's development foundation
2. Strengthening overall governance for DRR, including nonstructural measures
3. Promoting "Build Back Better"

What are problems of waste, water, and air the world is facing?

Piles of waste that keep increasing and plastic waste in the ocean



In Sub-Sharan Africa,
70% of waste is left
in uncontrolled disposal sites

Residential and industrial wastewater released to the environment is causing serious health problems

3.6 billion people live
without **adequate hygiene services**
such as toilets

Fourth biggest cause of death in the world is air pollution caused by industrial activities and cars

According to data released in 2019,
6.67 million people died from Air pollution

Contribution

JICA Clean City Initiative

GOAL: Benefit **500 million** citizens in **50** countries by **2030**

To Developing Countries:

◆**Human Security:**
Ensure **safe and healthy living environment**

◆**Quality growth:**
Realize economic growth which is inclusive, sustainable and resilient

To SDGs:

To Global Environment:

◆**Climate Change**: Prevent the generation of greenhouse gas (e.g. methane) through proper waste treatment in line with Japan's **NDC**

◆**Marine Plastic Pollution:** Prevent the discharge of plastic waste into rivers / oceans, toward realization of **"Osaka Blue Ocean Vision"** (aims to reduce additional pollution by marine plastic litter to zero by 2050) and upcoming **Plastic Treaty**

◆**Biodiversity:** Prevent further environmental pollution thereby conserving ecosystems

Utilize Japanese experience to realize clean air and water

Environmental Problems

- Air Pollution
- Water Pollution

Overcome Problems

- Collaboration among （Central &Local） Gov., Industry, academia, and the Public
- Innovative & Technology measures
- Finance & Economical incentives
- Awareness on Environment

1960s

Now

Source: Kitakyushu City ”The resurgence which is miracle from the sky of smoke and a mortal sea

APPROACHES

Clusters: Two cooperation approaches for solving problems

Cluster 1

Improve waste disposal structures to create a recycle-oriented society

1. Create and implement a system to collect, transport, and dispose of waste
2. Reduce environmental burden and prevent pollution
3. Support policies that reduce waste generation and establish material-cycle society with 3Rs initiative

Cluster 2

Create a healthy water, air, and soil environment through environmental regulations and pollution prevention measures

1. Enhance the ability to analyze pollutants to understand the current problems
2. Develop and implement counter-pollution measures based on scientific evidence
3. Strengthen controls over pollutant generation while promoting investments in environmental measures

Three stages to realize sound-material-cycle society

Steps toward waste improvement

1st stage

Improvement of public hygiene

- ✓ M/P
- ✓ Dumping Control Improvement (Open dumping to controlled dumping)

2nd stage

Reduction of environmental burden and prevention of pollution

- ✓ Leachate treatment
- ✓ Sanitary landfill
- ✓ Waste Minimize Plan

3rd stage

Establishment of material-cycle society with 3Rs initiative

- ✓ Legal framework dev.
- ✓ Recycling industry promotion
- ✓ E-Waste
- ✓ Waste to Energy

Steps toward Clean Air & Water

1st stage

Grasp the current condition, and Information disclosure

- ✓ Data Collection
- ✓ Pollution Monitoring
- ✓ Inventory on Air & Water
- ✓ Assessment on Pollution
- ✓ Information Disclosure

2nd stage

Consider counter measures, and Actions to prevent pollution

- ✓ Establish law and regulations
- ✓ Action Plan to prevent pollution
- ✓ Law enforcement
- ✓ Public awareness with citizens and business

3rd stage

Strengthen Pollution control,

And Enhance Green Growth

- ✓ Strengthening pollution control
- ✓ Legal framework dev. For Green Growth

Common approaches for solving problems

Basis for common initiatives

Develop human resources who will be in charge of actions ranging from organizing facilities and legal systems to raising social awareness

Challenges in developing countries

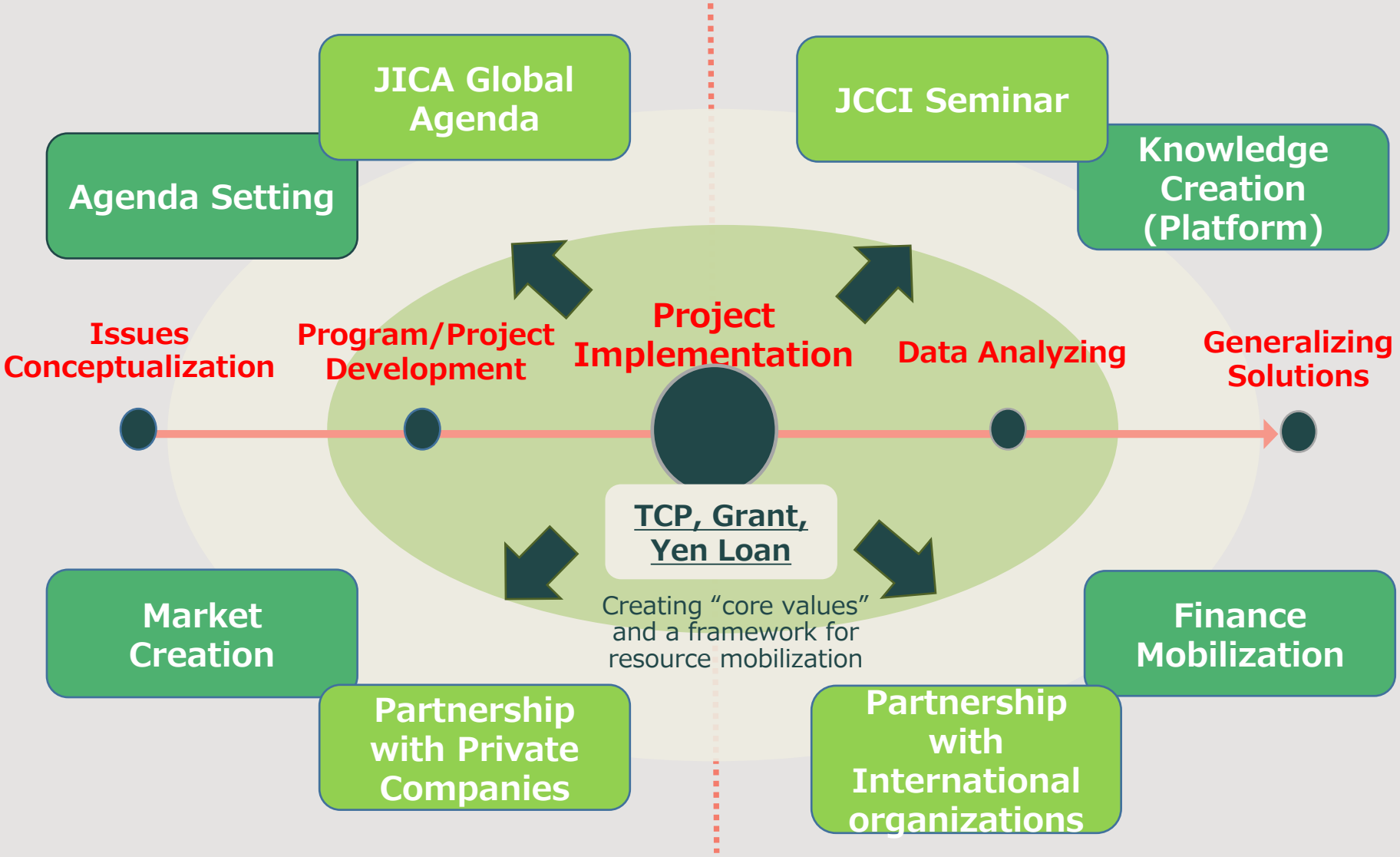
Technology/ facilities	Facilities are not organized Lack of technology and budget for maintenance
Finance	Inadequate operational and fiscal management abilities Insufficient financial plan and securing of funds Lack of budget for counter-pollution measures
Organizational structure	Inadequate policy development and coordination abilities No structure to execute legal systems and carry out administrative tasks
Legal system	Insufficient abilities to develop legal systems and rules, guidelines, and standards for operating them
Social awareness	Insufficient cooperation and participation of citizens Inadequate compliance (e.g., illegal operations by businesses)

Human Resources

Insufficient knowledge and experience (Gov, Industries, Citizens, etc.,)

JICA Global Agenda: 4 elements to achieve JGA Global Target

Non-finance/Intangible Resource Mobilization



Finance/Tangible Resource Mobilization

OUTLINE

2. Major progress of JCCI in first 3 years

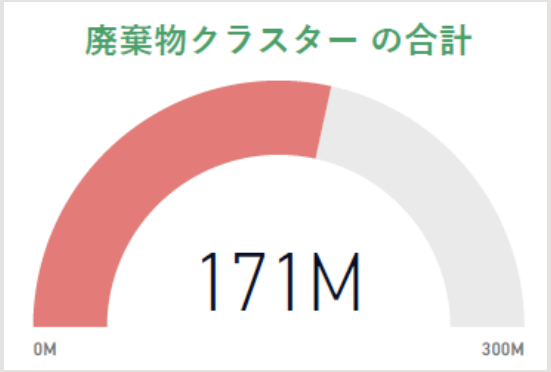
- JCCI in numbers
- Major developments by cluster
- Typical cases and approaches

PROGRESS

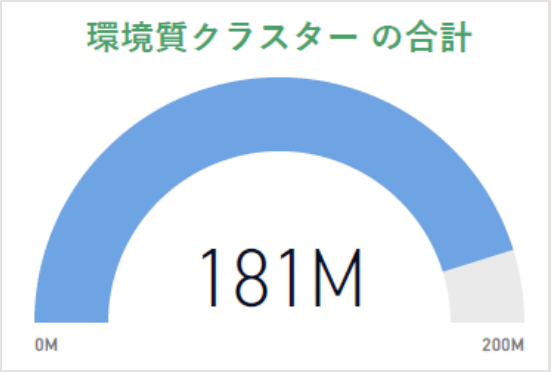
Achievements in first 3 years of JICA Clean City Initiative

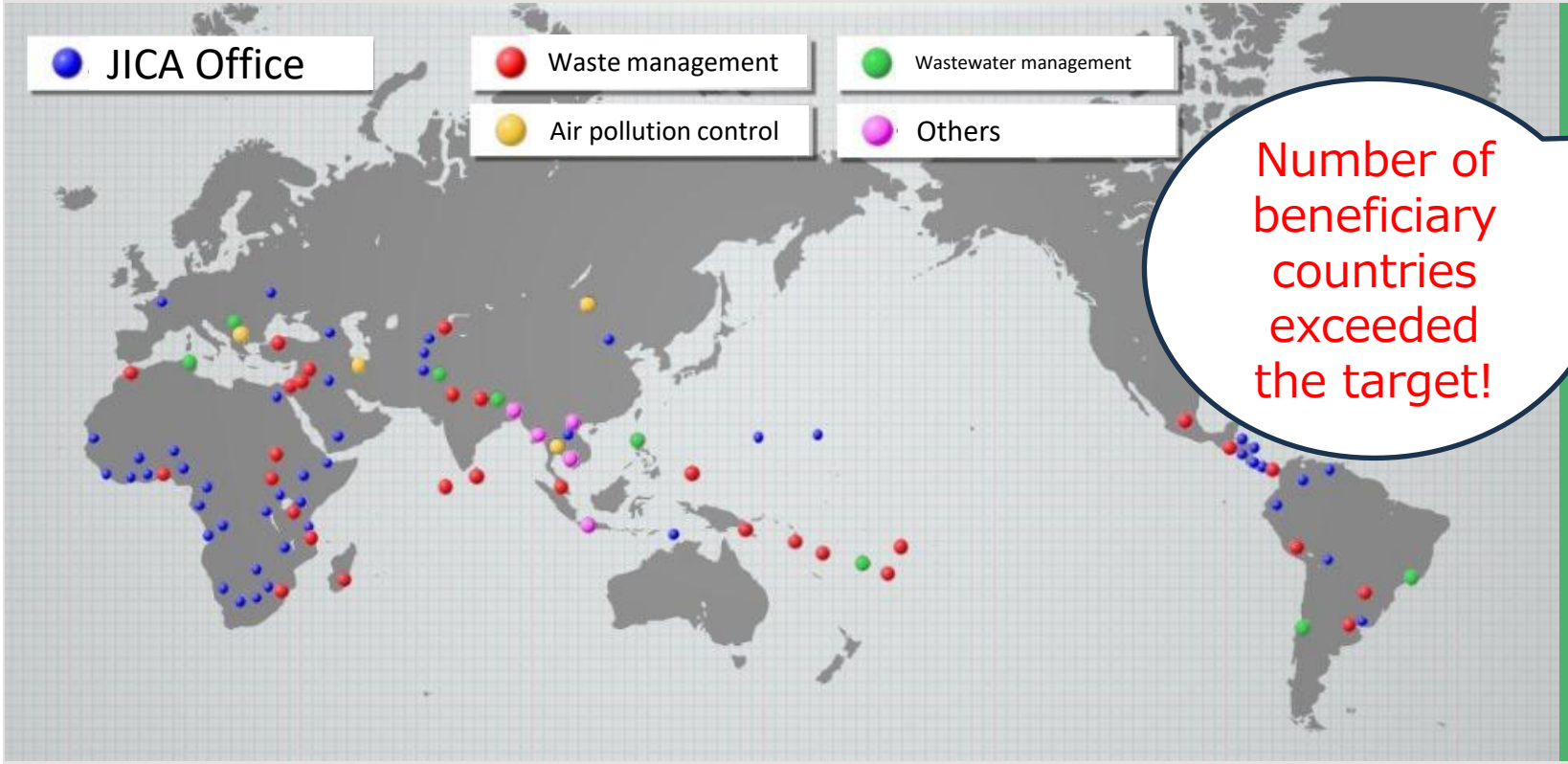
JCCI Target (Beneficial Population)

Waste Management



Clean Air & Water





Number of beneficiary countries exceeded the target!

94 Projects in 60 Countries (ongoing and finalized, inclu. loan, grant, and TCP)

Waste	**49**
Air	**8**
Water	**33**
Others	**4**

TCP = Technical Cooperation Project

JCCI in numbers

Beneficiaries	351 million citizens in 60 countries
Projects	94 Projects (technical cooperation projects, grant, and loan)
Human resource development	8,500 environment officers trained in 15 courses at 7 JICA centers, universities, etc.
Clean City Promotion Team	76 volunteers working in 37 countries
Partnership	17 partnership projects with Japanese local government, NGOs, etc
Private sector Partnership	More than 30 surveys/demonstrations of technologies/products of Japanese companies
African Clean Cities Platform	Expanded to 47 countries and 196 cities

Number of ongoing/finalized projects by cluster and region

(as of February 2025)

	South-east Asia	East & Central Asia	South Asia	Pacific Islands	North, Central & South America	Africa	Middle East	Europe	Total
Number of Countries	9	2	6	9	13	11	6	4	**60**
TCP Waste	10	0	6	2	4	8	3	3	36
Air/ Water	13	3	3	1	1	0	1	3	25
Grant Waste	0	0	1	1	1	4	1	2	10
Air/ Water	3	0	1	0	0	0	2	0	6
Loan Waste	0	0	0	0	2	1	0	0	3
Air/ Water	10	0	2	0	1	0	0	1	14
Total	36	3	13	4	9	13	7	9	94

TCP = Technical Cooperation Project

Major developments by cluster

Cluster 1

Improve waste disposal structures to create a recycle-oriented society

1. Actively strengthen capacity in collection, transport, and disposal in Asia, Pacific Is., Africa, Middle East, etc.
2. Improve infrastructure and management of final disposal sites in Central and South America, etc.
3. Establish systems for circular economy (EPR, E-waste, ELV) and tackle plastic pollution in Southeast and South Asia etc.

Cluster 2

Create a healthy water, air, and soil environment through environmental regulations and pollution prevention measures

1. Strengthen sewerage construction and management in Cambodia, Indonesia, Philippines, Vietnam, etc.
2. Elaborate master plans for sewerage development/CWIS in Fiji, Nepal, etc., and support legal system in Mongolia, Vietnam
3. Strengthen monitoring and countermeasures for air pollution in Mongolia, Kosovo, Thailand, etc.

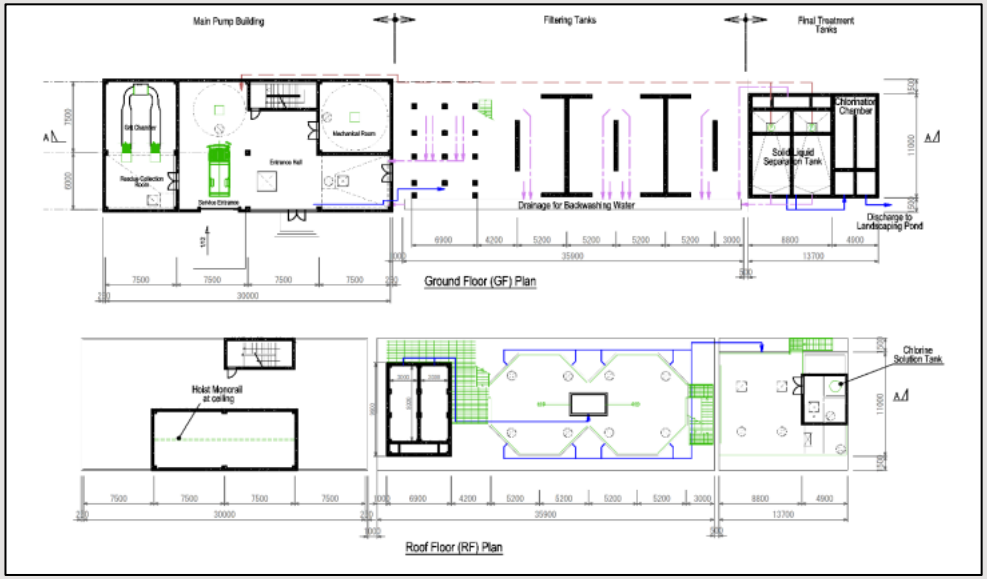
OUTLINE

Typical cases and approaches

1. Wastewater: from master plans to infrastructure
2. Integrated projects on waste and air pollution
3. Institution building for circular economy
4. Promote circular economy and carbon neutrality with Japan's experience and innovations
5. Research unsolved problems/develop innovative technologies
6. Regional initiatives with international organizations
7. Promote human security through waste management
8. Co-benefit approach to climate resilient development

Wastewater: Master plan, infrastructure, and capacity development

The sewerage system in Phnom Penh, Cambodia was constructed following the city's master plan and is being supported by technical cooperation and partnership with Kitakyushu City



Integrated projects on waste management and air pollution control

Waste collection rate improved significantly from 44% in 2004 to 85% in 2021 in Dhaka, Bangladesh

Next step toward Clean City: JICA will launch joint projects

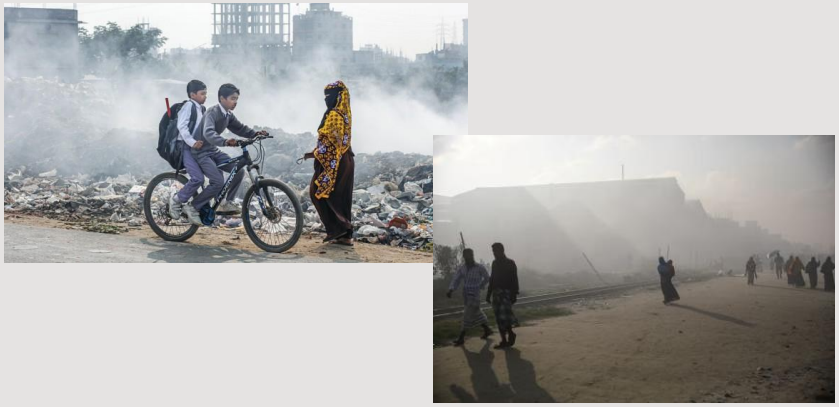


Photo News Week Japan

JICA will support air quality control from point sources and waste management together, in an integrated manner, while developing an environmental information system.

Establish institutions to create market toward circular economy

Establishment of Comprehensive End-of-Life Vehicles (ELVs) Management System in Thailand, collaborating with Japanese government and private sector

Overall Goal (Long-term goal): The ELV Management System is started to be established in accordance with its implementation plan.

Project Purpose:
Draft ELV Management System and its implementation plan are formulated.

Output 1: The project implementation structure is established with shared understandings on issues and the current status of ELVs management.

Output 2: ELVs flow tracking system is proposed

Output 3: ELV collection mechanism is proposed

Output 4: ELV Recycling mechanism is proposed

Output 5: ELV Management System with its implementation plan is drafted.

Output 6: Draft ELV Management mechanism is verified through pilot projects

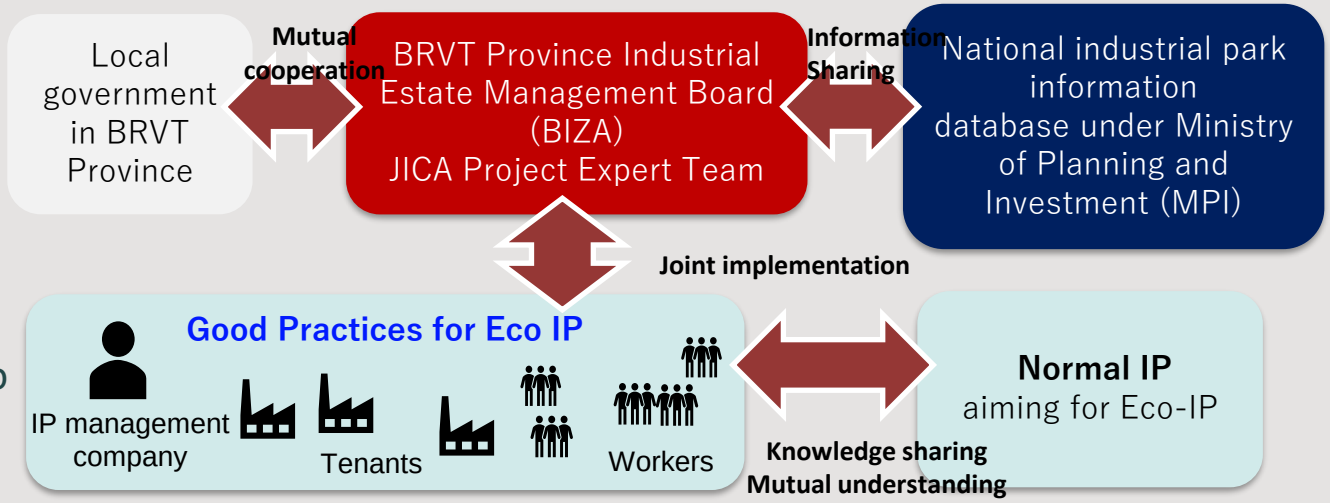
Feed back of the results

Promote CN & CE with Japan's experience and innovation

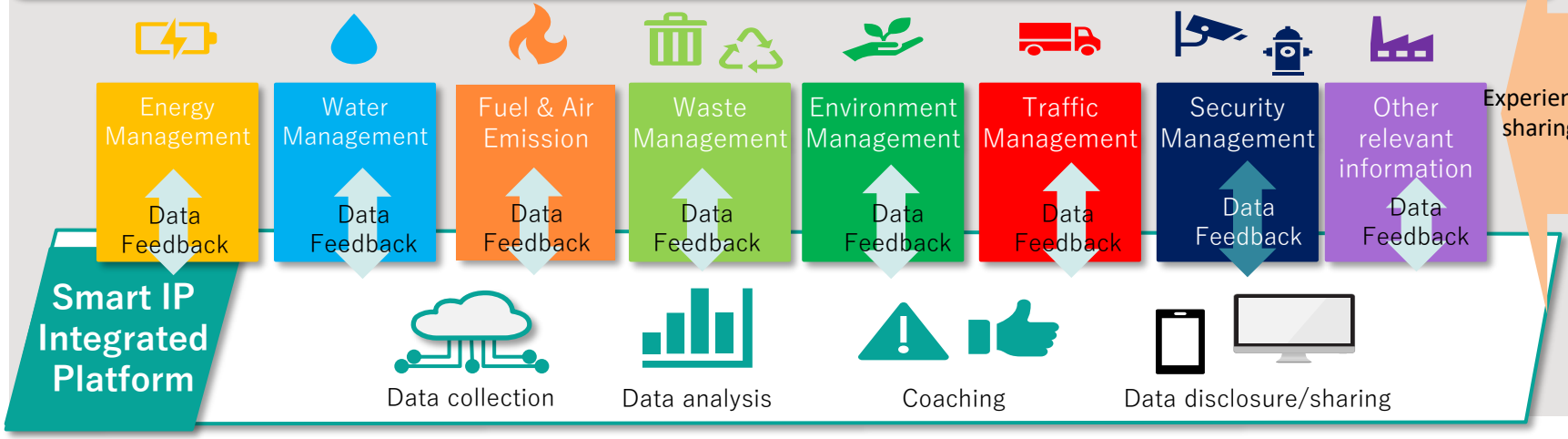
Establish a system of Eco-Industrial Parks (Eco IPs) for the realization of a carbon-neutral and circular economy in Ba Ria Vung Tau Province, Vietnam

Project activity

- Development of institutional and legal arrangement for Eco-IP
- Management of raw materials and energy management using smart meters
- Management of emissions including GHG
- Promotion of wastewater reuse
- Database development and development fo the information disclosure/sharing system



Strengthening the system to reduce GHG emissions through data management of energy, resources and emissions (air, water and solid waste) in IPs



Kitakyushu Eco Town

①Eco-Industrial Promotion
Promotion of green industries based on local industries, and establishment of circular IPs through inter-industry collaboration (Symbiosis)

②Environmental Protection
Environmentally harmonized towns through cooperation among city, residents and local industry

CASES

Research unsolved problems/develop innovative technologies

Science and Technology Research Partnership for Sustainable Development (SATREPS)

Thailand: Establish a center of excellence for marine plastic pollution

Purpose

- **Propose formation of a center of excellence for marine plastic pollution studies in Thailand**
- Develop action plan for the government, which is expected to be **a model for other ASEAN countries**

Representing Researcher of Japanese side

- Prof. Atsuhiko ISOBE, Center for Oceanic and Atmospheric Research, Kyushu University

C/P of Institution of Thai side

- Chulalongkorn University

Activities

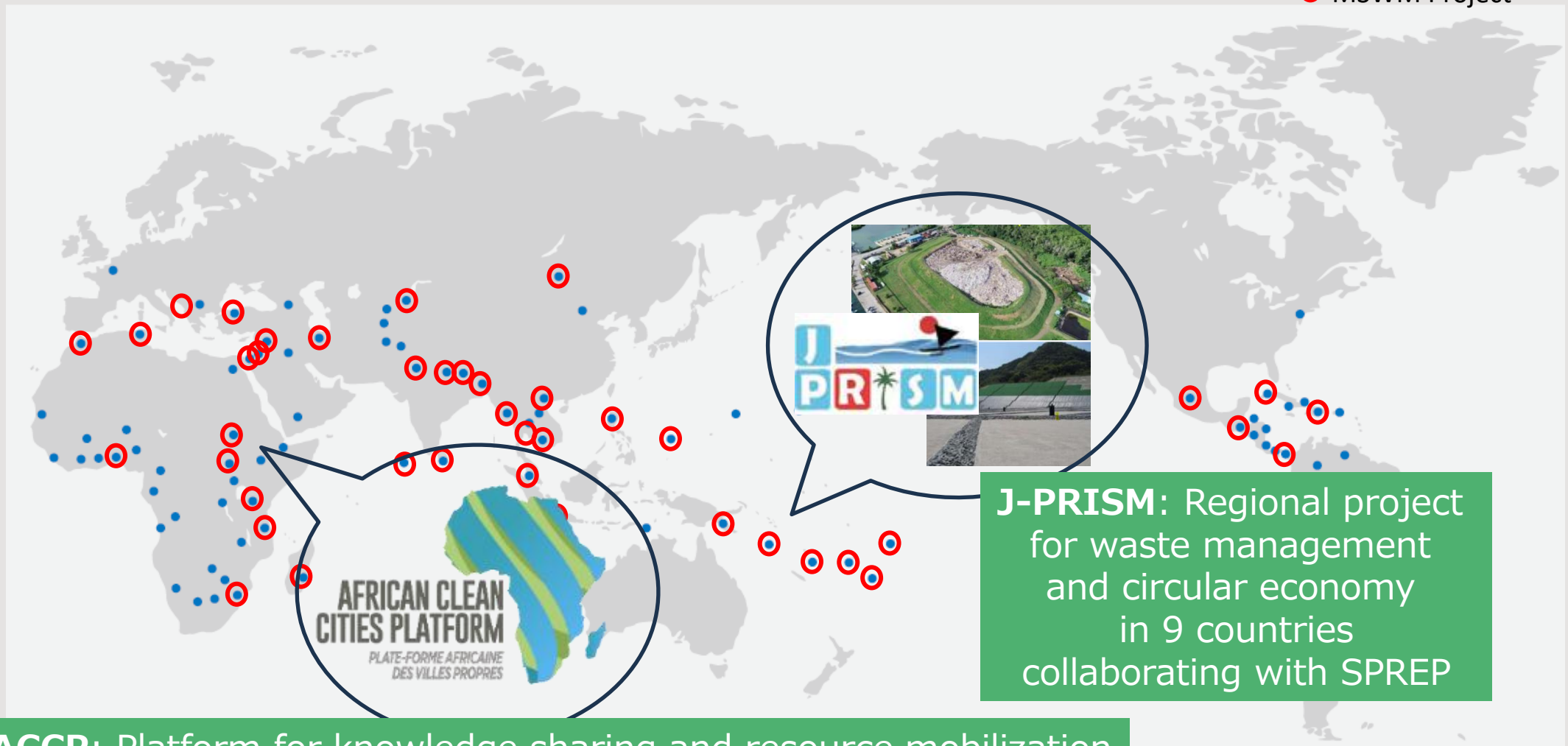
- Analyze current/future amount of plastic litter, conduct environment and social impact assessment
- Develop Action plan for Sattahip District and identify prioritized action to be conducted with a lot of local stakeholders
- Develop draft action plan for Thai government, which expects to become “Model Plan” for other ASEAN countries.

*SATREPS is one of JICA’s technical cooperation scheme to promotes international joint research which targets global issues, by collaboration with the Japan Science and Technology Agency (JST) and JICA. SATREPS projects are expected to lead to outcomes with potential for practical utilization, and to enhance research capacity in the developing countries.

CASES

Regional initiatives collaborating with international organizations on waste management in Africa and Pacific Islands

JICA Office
MSWM Project

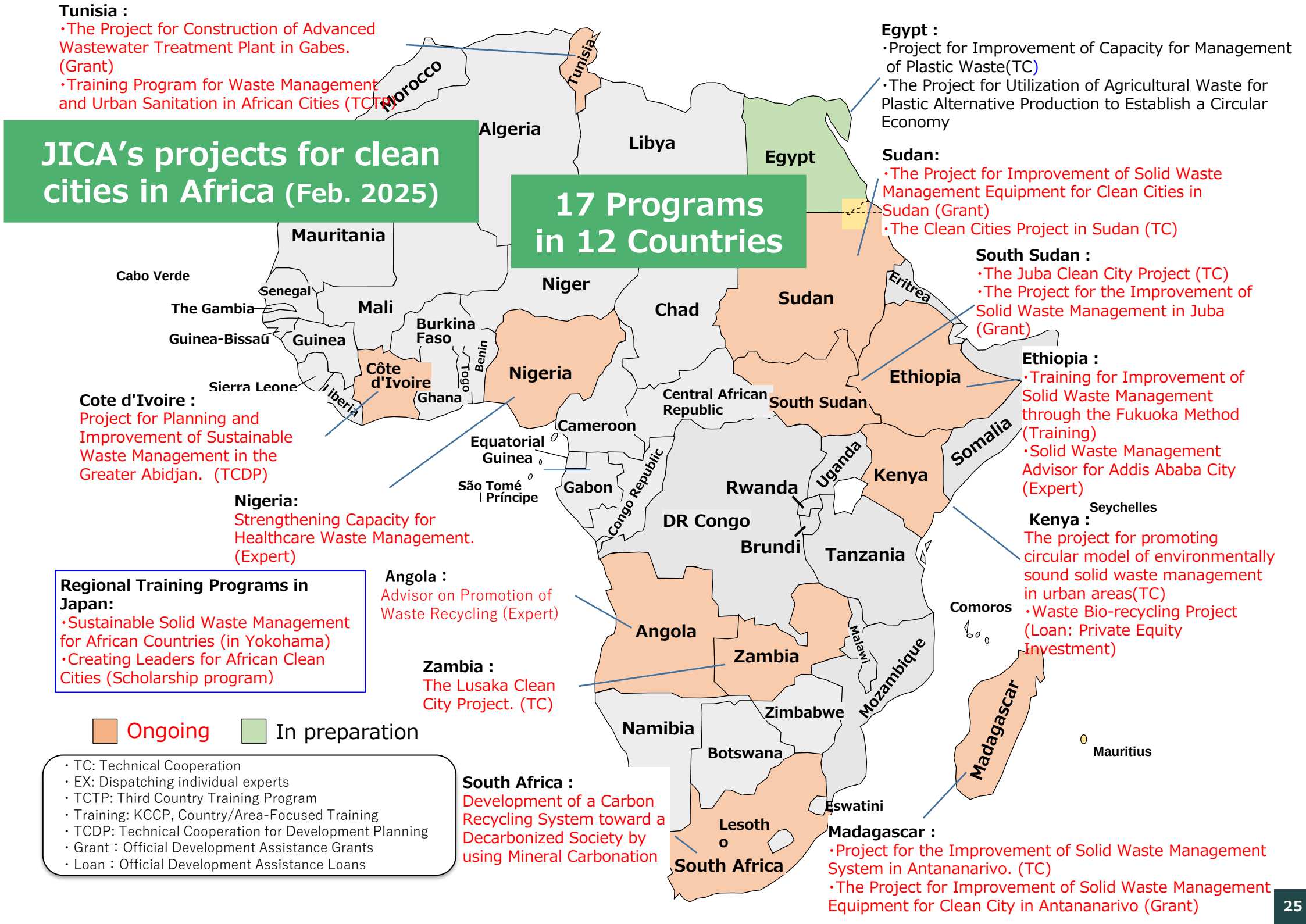


J-PRISM: Regional project for waste management and circular economy in 9 countries collaborating with SPREP

ACCP: Platform for knowledge sharing and resource mobilization collaborating with UN-Habitat, UNEP, MOEJ, and Yokohama-city
Members: 47 member countries and 196 cities

JICA's projects for clean cities in Africa (Feb. 2025)

17 Programs in 12 Countries



Tunisia :
・The Project for Construction of Advanced Wastewater Treatment Plant in Gabes. (Grant)
・Training Program for Waste Management and Urban Sanitation in African Cities (TCTP)

Egypt :
・Project for Improvement of Capacity for Management of Plastic Waste(TC)
・The Project for Utilization of Agricultural Waste for Plastic Alternative Production to Establish a Circular Economy

Sudan:
・The Project for Improvement of Solid Waste Management Equipment for Clean Cities in Sudan (Grant)
・The Clean Cities Project in Sudan (TC)

South Sudan :
・The Juba Clean City Project (TC)
・The Project for the Improvement of Solid Waste Management in Juba (Grant)

Ethiopia :
・Training for Improvement of Solid Waste Management through the Fukuoka Method (Training)
・Solid Waste Management Advisor for Addis Ababa City (Expert)

Cote d'Ivoire :
Project for Planning and Improvement of Sustainable Waste Management in the Greater Abidjan. (TCDP)

Nigeria:
Strengthening Capacity for Healthcare Waste Management. (Expert)

Kenya :
The project for promoting circular model of environmentally sound solid waste management in urban areas(TC)
・Waste Bio-recycling Project (Loan: Private Equity Investment)

Angola :
Advisor on Promotion of Waste Recycling (Expert)

Zambia :
The Lusaka Clean City Project. (TC)

Regional Training Programs in Japan:
・Sustainable Solid Waste Management for African Countries (in Yokohama)
・Creating Leaders for African Clean Cities (Scholarship program)

South Africa :
Development of a Carbon Recycling System toward a Decarbonized Society by using Mineral Carbonation

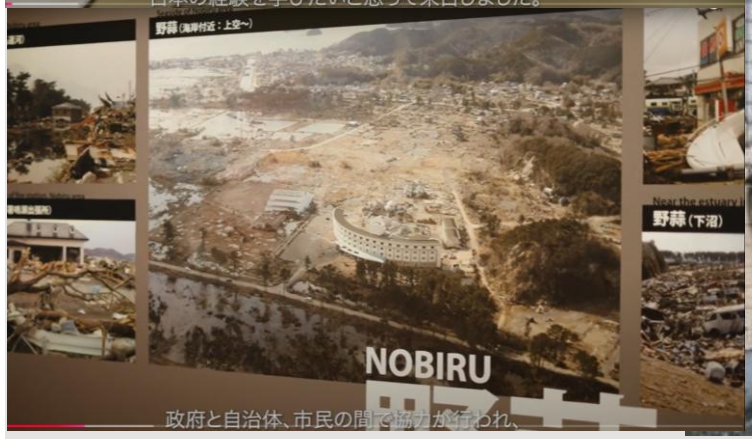
Madagascar :
・Project for the Improvement of Solid Waste Management System in Antananarivo. (TC)
・The Project for Improvement of Solid Waste Management Equipment for Clean City in Antananarivo (Grant)

Ongoing In preparation

・TC: Technical Cooperation
・EX: Dispatching individual experts
・TCTP: Third Country Training Program
・Training: KCCP, Country/Area-Focused Training
・TCDP: Technical Cooperation for Development Planning
・Grant：Official Development Assistance Grants
・Loan：Official Development Assistance Loans

Promote human security through waste management

Debris management in Ukraine



- Utilize the experience of **Higashi-Matsushima city** affected by Great East Japan Earthquake to deal with war debris
- Provide heavy machinery, crushing equipment, PPE, etc.
- Provide manuals and training on sorting and processing debris containing asbestos
- Other actions are also ongoing in Sudan, Vanuatu ...

JICA's definition of Co-Benefit Approach to Climate Change

- **JCCRS: JICA's Co-benefits Approach to Climate Change" aims to achieve CRD and contributes to the social transformation towards Sustainable Development**
- **CRD is a very ambitious framework. JICA is committed to addressing the challenges and collaborate with various partners to amplify the impacts of its cooperation.**
- **JICA invites all stakeholders to consider taking holistic, integrative approaches to tackle climate change and development issues to build a sustainable and resilient society for all.**

Promote Co-benefit approach to climate resilient development

Capacity Development of Sewerage Business Management in Indonesia: Minimizing trade-offs while maximizing synergies related to health and GHG emission

Project Outline (in preparation)

- Formulation of a sustainable business plan for promoting appropriate treatment of sewage and sludge
- Building a climate resilient wastewater system by rehabilitating assets
- Collaboration with an expert from **Tokyo** metropolitan government

The area where sewage system has been implemented

↑Sewage treatment plant and stabilization ponds

Relay pumping station facilities

CASE

Promote Co-benefit approach to climate resilient development

JICA is introducing Co-benefit approach into project formulation and identified measures to address trade-offs to be integrated.

Setting inappropriate sewage rates (i.e., too high fee structures) will hinder access to sanitation services for the poor.

⇒Formulation of poor-sensitive system considering cross-subsidy and improved funding mechanisms and setting appropriate fees

Rising sea levels exacerbate sea water infiltration of sludge drying beds, preventing sludge treatment and increasing methane gas

⇒Plan and implement rehabilitation work

3. Way forward

Way forward

Let's realize "Clean Cities" through more co-creation and innovation together with YOU !

Policy/institution building	Planning and institution building for regulatory framework, infrastructure, and market creation Work with national/local governments in Japan
Scaling up finance&impact	Integrated programs with TCP/Grant/Loan Collaboration with donor organizations Promotion of partnership with private sector
Science & Technologies	R/D and application of innovative technologies for pollution control, circular economy and carbon neutrality with universities, private sector
Global issues (climate, plastic…)	Integrate co-benefit/synergy with climate actions Contribute to the upcoming Plastic Treaty
TICAD9	Promote investment toward ACCP Assembly in Aug. 2025/ Focus on climate adaptation in Africa

Goal Of JCCI:

Benefit 500 million citizens in ?? countries by 2030

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JICA Clean City Initiative

Thank you all our partners, experts, and colleagues for your contribution

JICA

SHIBATA Kazunao

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