

International Trends on GHG Measurement and Reporting including Supply Chain Management with a View of Incentives for Business

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Contents

- PaSTI and its collaboration with the Philippines
- Recent situation on GHG emission MRV system in ASEAN
- International trends on GHG measurement and reporting including supply chain management

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PaSTI's collaboration with the Philippines

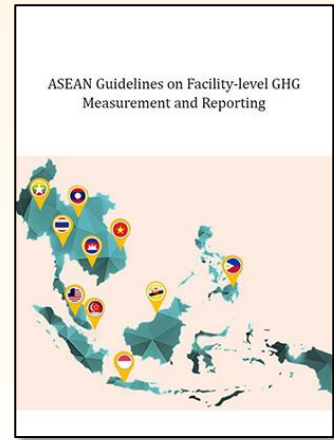


Bilateral activities between Japan and the Philippines



PaSTI-JAIF Phase I

- Country study and survey for Government officials and the interested private sector
- Webinar (due to Covid-19)
- Design a roadmap to develop a M&R guideline (including sector prioritization)



PaSTI-JAIF Phase II

- Development of Facility level M&R guidelines for ASEAN region
- Report with options on pilot projects with utilization of the M&R guidelines and development of voluntary M&R system
- Development of Information Platform on transparency actions in AMS
- PaSTI Online Event for private sector engagement

PaSTI-JAIF Phase III

- Advisory and consultation support to the AMS in developing and implementing GHG M&R Systems, with reference to the ASEAN Guidelines developed in Phase II
- Piloting measurement and reporting of GHG at facility level and developing of potential business models for incentives for the private sector, accelerating GHG reporting and emissions reduction

Regional activities in ASEAN (AWGCC)

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Recent situation on GHG emission MRV system in ASEAN PaSTI

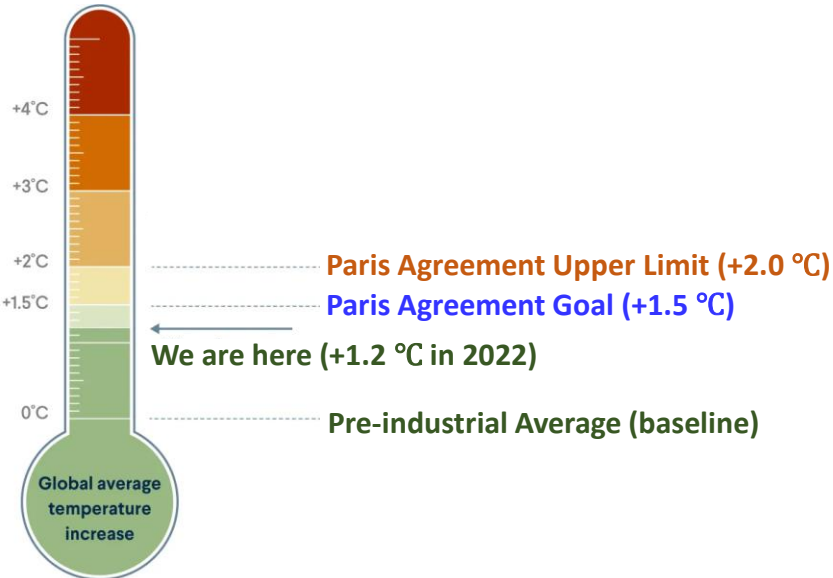


- Background -

Why do we need to establish GHG emission MRV system?



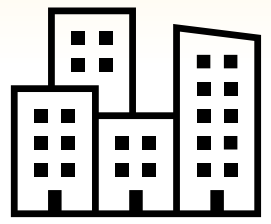
GHG emission MRV system is one of the tools to promote and keep track reductions, especially to achieve NDCs and net-zero/ carbon neutral target.



	NDC Reduction Target	Net-zero Targets
Thailand	40% vs. projected 2030 BAU - 30% unconditional - 10% conditional (Baseline: 2005)	Carbon neutral by 2050 Net-zero by 2065
Viet Nam	43.5% vs. projected 2030 BAU - 15.8% unconditional - 27.7% conditional (Baseline: 2022)	Net-zero by 2050
Indonesia	43.2% vs. projected 2030 BAU - 31.9% unconditional - 11.3% conditional	Net-zero by 2060
Singapore	Reduce to 60MtCO ₂ e by 2030	Net-zero by 2050
Philippines	75% by 2030 - 2.71% unconditional - 72.29% conditional (Baseline: 2020)	-
Japan	46% by 2030 (60% by 2035) (Under Public Hearing) (Baseline: 2013)	Net-zero by 2050

Recent situation on GHG emission MRV system in ASEAN

- *Benefit of GHG emission MRV system* -



Companies



Government

【Benefits for private sector】

- Raise awareness of the importance of GHG measurement and reporting
- Find opportunity to reduce GHG emissions
- ✓ Cost reduction by making rational use of resources
- ✓ Contribution to the national reduction plan

- Increase corporate profile
- ✓ Increasing corporate values and competitiveness by disclosure
- ✓ Access to ESG investment

【Benefits for government】

- Promote awareness of GHG emissions and reduction






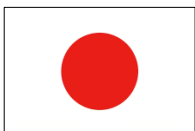
- Access to bottom-up data
- ✓ Breakdown of GHG emissions by group/sectors
- ✓ Trace GHG emission reduction trend by total/group/sector by year to achieve NDCs

- Enabling further policy actions

Recent situation on GHG emission MRV system in ASEAN

- Current status of GHG emission MRV system in ASEAN -



	Laws/Regulations	Enforcement	Responsible Ministry	Mandatory/ Voluntary	Threshold to report	Optional System
 Thailand	Climate Change Law	Under Public Hearing	DCCE	(Mandatory)	Under Consideration	(ETS, Carbon Credit, Carbon Tax)
 Viet Nam	Decree on Mitigation of GHG Emission No. 06/2022/ND-CP	2022	MONRE	Mandatory	3,000ton CO2e	ETS
 Indonesia	Presidential Regulation No. 98 of 2021 Regulation of the MOEF No. 21 of 2022	2021, 2022	Each Responsible Ministry	Mandatory	-	ETS, etc.
 Singapore	Carbon Pricing Act	2024	NEA	Mandatory	2,000ton CO2e	Carbon Tax, Carbon Credit, ETS
 Philippines	Executive Order No. 174 Sustainable Reporting Guideline	2014 2019	CCC SEC	Voluntary Mandatory to PLCs	-	(Carbon Pricing, ETS, etc. are under consideration in the new bill)
 Japan	The Act on Promotion of Global Warming Countermeasures	2006	MOEJ/METI	Mandatory	3,000ton CO2e	(ETS, Carbon Credit, Carbon Tax)

Recent situation on GHG emission MRV system in ASEAN

- Overview of complementary reduction supporting system -



Government

National Inventory System

NDC

Other Policy Measures

Corporate-level GHG Emission Trading Scheme
(Mandatory/Voluntary Participation)

Facility/Corporate-level GHG Measurement/Reporting System
(Mandatory/Voluntary)

International Carbon Crediting Mechanism

Article 6.2 Mechanism
JCM, etc.

Article 6.4 Mechanism
UN-governed post CDM, etc.

Carbon Tax

Mandatory Carbon Information Disclosure (TCFD/ISSB)
SEC, etc.

Commodity-based response to CBAM

Non-ASEAN ETS
EU-ETS, etc.

Emission/Reduction Information

Verified emission/reduction data

Registration/Necessary information

Credit

Emission Data

Reported Emission Data

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International trends on GHG measurement and reporting including supply chain management

- *Background* -

Why is supply chain management important?



- Business operators should find opportunities to reduce GHG emissions not only in their own business activities, but also in lifecycle activities of their products or services.



- It will grow awareness to reduce GHG emissions among stakeholders in their supply chain system.
- It may find new business opportunities for the stakeholders.
- It will promote GHG reduction throughout the supply chain system, which contributes to reduce total emissions in the social system.

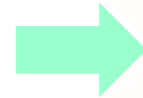
International trends on GHG measurement and reporting including supply chain management

- International trend on supply chain management-



IFRS S2 Climate-related Disclosure

- The IFRS Foundation's ISSB (International Sustainability Standard Boards) published IFRS S2 in June 2023 as an international standard for disclosing information on climate change risks and opportunities.
- Companies are required to disclose information in accordance with the standard in their annual reports from January 2024 onwards.
- The standard is based on the TCFD disclosure recommendations.



IFRS S2 requires companies to disclose:

- ✓ Where are climate-related risks and opportunities concentrated in your value chain ?
- ✓ How are you addressing identified value chain risks and opportunities? (e.g., working with suppliers)
- ✓ Scope 3 emissions under the GHG Protocol.
When calculating Scope 3 emissions, give priority to data obtained **directly from specific activities in your company's value chain (primary data)**.
- ✓ When using secondary data, consideration must be given to how faithfully the data represents your company's activities.

International trends on GHG measurement and reporting including supply chain management

- GHG protocol Scope 3 -

Before calculating Scope 3 emissions, companies must consider what business goals it is trying to achieve.

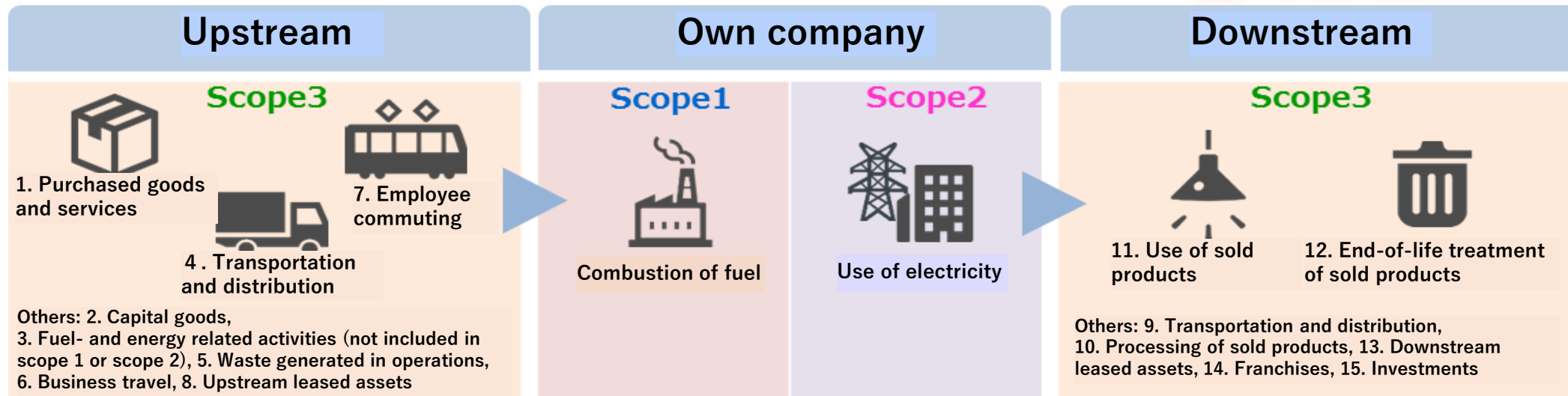


Business goals	Detailed explanation
Identifying risks and opportunities related to emissions in the value chain	<ul style="list-style-type: none"> Identifying risks related to GHG emissions Identifying new market opportunities Informing investment and procurement decisions
Identify GHG reduction opportunities, set reduction targets, and track reduction performance	<ul style="list-style-type: none"> Identify GHG hotspots and prioritize reduction efforts along the value chain Set Scope 3 reduction targets Quantify and report GHG reduction performance
Collaborate with value chain partners on GHG management	<ul style="list-style-type: none"> Work with suppliers' customers and other companies to achieve GHG reductions Increase supply chain GHG accounting, transparency and management Increase transparency of company efforts to work with suppliers Reduce supply chain energy use, costs and risks to avoid future cost increases
Enhance stakeholder information and the company's reputation through disclosure	<ul style="list-style-type: none"> Improve corporate reputation and accountability through disclosure Meet stakeholder needs, improve reputation, and strengthen relationships by disclosing progress toward GHG emissions targets Participate in government- or NGO-led GHG reporting and management programs and disclose GHG information

International trends on GHG measurement and reporting including supply chain management

- Overview of supply chain emissions -

- The total includes not only the emissions of the business itself, but also all emissions related to business activities through lifecycle of the business. This refers to GHG emissions generated throughout the entire process, including raw material procurement, manufacturing, logistics, sales, and disposal.
- Supply chain emissions = **Scope 1** + **Scope 2** + **Scope 3**
- The Scope 3 standard of the GHG Protocol classifies Scope 3 into **15 categories**.



Scope 1: Direct greenhouse gas emissions by the business itself (fuel combustion, industrial processes)

Scope 2: Indirect emissions from the use of electricity, heat, and steam supplied by other companies

Scope 3: Indirect emissions other than Scope 1 and Scope 2 (emissions by other companies related to the business's activities)

International trends on GHG measurement and reporting including supply chain management

- *Why is primary data important?*-

$$\text{GHG emissions} = \text{Amount of Activities} \times \text{Emission Factor}$$

Primary Data

Example:

- Emission intensity provided by supplier
tonCO2e/ \$
- Product emission intensity (or Carbon footprint) provided by supplier
tonCO2e/product unit
tonCO2e/kg, etc.

→ **Suppliers' reduction efforts are evaluated and reflected to reduce emissions**



Secondary Data

Example:

- Average emission intensity by product sector in nation or region
tonCO2e/ \$ or tonCO2e/kg, etc.

→ Supply chain emission will **not be reduced** even if suppliers make efforts to reduce emissions
→ **Supplier's reduction efforts are not evaluated and reflected**



International trends on GHG measurement and reporting including supply chain management



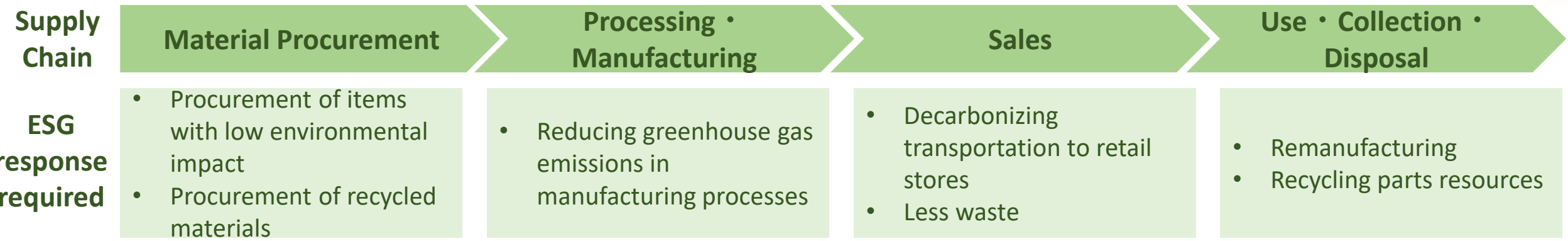
- Collaboration with supply chain partners -

It is expected that companies will contribute to improving their business partners' corporate value through dialogue that takes ESG disclosure into consideration.

- ✓ Companies in the supply chain have the risk of being excluded from the supply chain if they delay in responding to ESG issues, regardless of whether they are large or small companies.
- ✓ It is becoming increasingly important to address decarbonization throughout the entire supply chain.
- ✓ Companies involved in material procurement, processing, manufacturing, and transportation are also being asked to reduce greenhouse gas emissions.









	4月	5月	6月	7月	8月	9月	10月	11月	12月	1月	2月	3月	計	前年同月比	前年同月比	前年同月比
売上																
営業利益																
経常利益																
税引後利益																
純利益																
経常利益率																
純利益率																
営業利益																
経常利益																
純利益																
二階乗数(%)																



International trends on GHG measurement and reporting including supply chain management

- Trends on Sustainability Information Disclosure in ASEAN -



	Responsible Agency	Mandatory/ Voluntary	Enforcement	Reporting Entities	Supply Chain Disclosure
 Thailand	Securities and Exchange Commission (SEC)	Mandatory	Jan. 2022	PLCs	IFRS S2: Under Consideration
 Malaysia	Bursa Malaysia	Mandatory	Dec. 2016	PLCs	IFRS S2: Mandatory to PLCs with market capitalization of RM2 billion and above in 2025, according to NSRF
 Indonesia	OJK	Mandatory	Jan. 2020	PLCs	IFRS S2: Under Consideration
 Singapore	SGX	Mandatory	Jan. 2018	PLCs	Scope3: Mandatory to PLCs in 2025 Scope3: Mandatory to non-PLCs with sales 1bS\$ and above in 2027
 Philippines	SEC	Mandatory	2019	PLCs	IFRS S2: Mandatory to PLCs in 2026
 Japan	Financial Services Agency (FSA)	Mandatory	Mar. 2023	PLCs	Scope3: Mandatory to PLCs with market capitalization of 3 trillion JPY and above in 2027

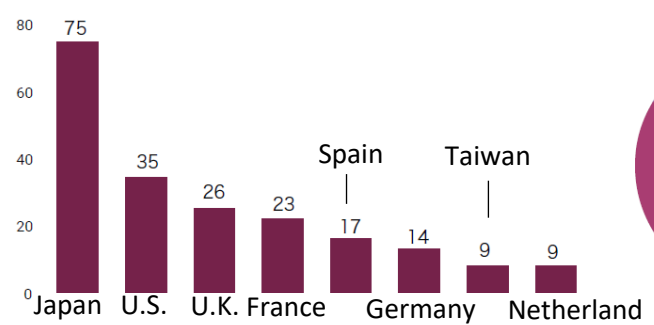
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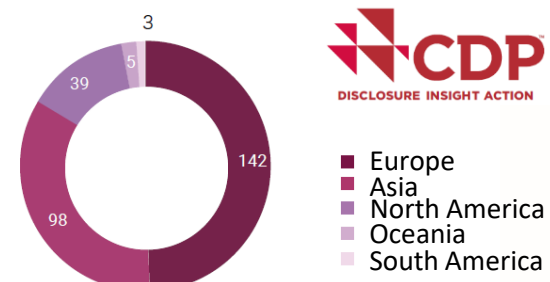
- Trends in Corporate Information Disclosure -

Disclosure of management strategies in response to climate change (CDP, TCFD) and setting of carbon-neutral targets (SBT, RE100) by considering supply chain management are expanding internationally, especially among global companies.

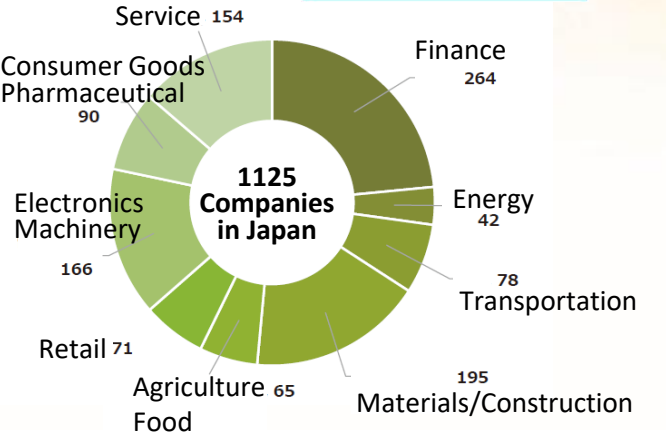
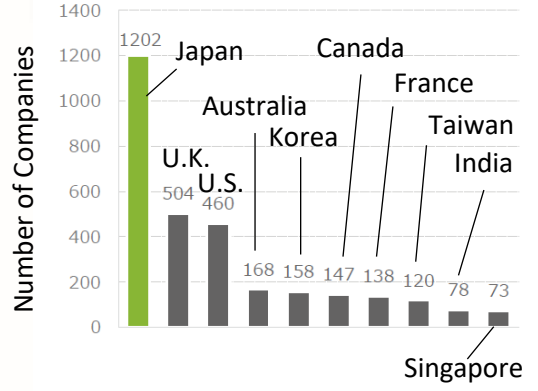
【CDP】 https://cdn.cdp.net/cdp-production/comfy/cms/files/files/000/008/807/original/CDP_Climate_Change_Japan_2022_JP_web.pdf
Climate Change A List (2022):
 Number of companies by country



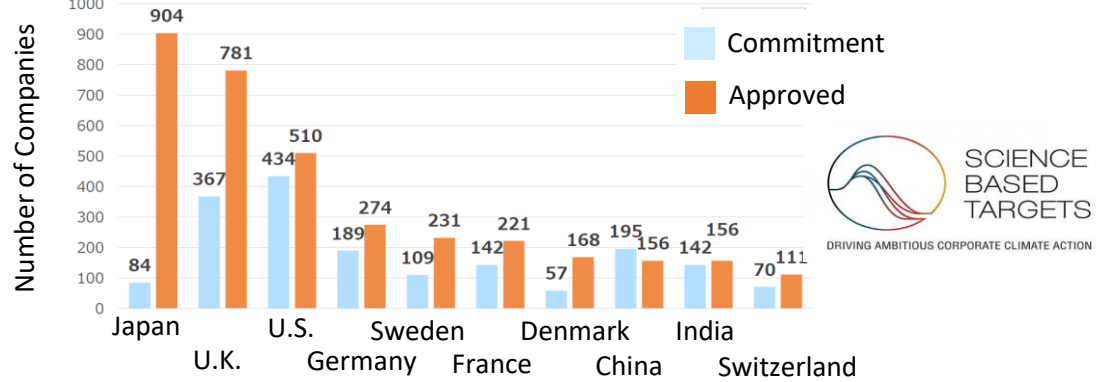
Climate Change A List (2022):
 Number of companies by region



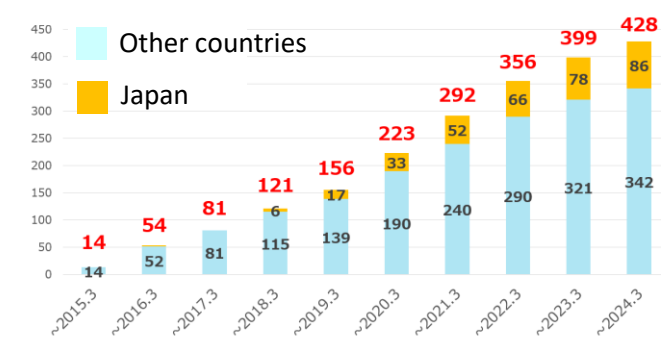
【TCFD】 <http://www.env.go.jp/earth/datsutansokeiei.html>
Top 10 Supporting Countries and Regions
 As of Jan 2023



【SBT】 <http://sciencebasedtargets.org/companies-taking-action/>
Number of companies participating in SBT by country
 (Top 10 countries as of March 2024)



【RE100】
Cumulative number of companies participating in RE100 (as of March 2024)



International trends on GHG measurement and reporting including supply chain management

- *Additional Information on Environment Technologies in Japan-*



JPRSI: Japan Platform for Redesign Sustainable Infrastructure



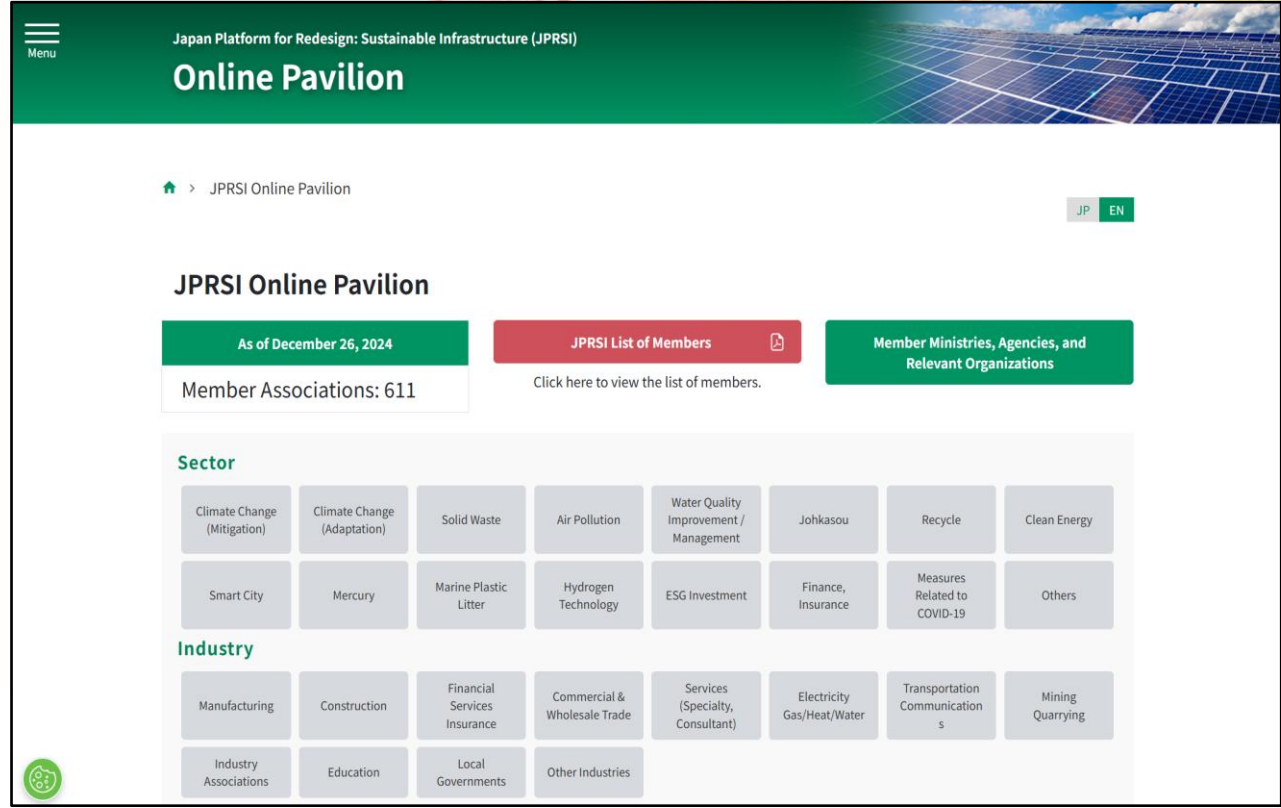
JPRSI
環境インフラ海外展開プラットフォーム
JAPAN PLATFORM for REDESIGN: SUSTAINABLE INFRASTRUCTURE

Menu JP EN

JPRSI
Showcase towards Sustainable Future
Discover Advanced Environmental Solutions
Connect with Japanese Companies

Information

- The Philippines-Japan Environment Week will be held from Jan.13 to Jan.15, 2025 in Manila. Please visit [the Environment Week website](#) for the details and registration for participation.
- UNFCCC COP29 has successfully ended. Thank you very much for your support. [COP29 JAPAN PAVILION VIRTUAL SHOWCASE](#) is still open for your visit. Please also enjoy exhibitors' short movies ([Movie A](#), [Movie B](#)).



Japan Platform for Redesign: Sustainable Infrastructure (JPRSI)
Online Pavilion

Menu JP EN

Home > JPRSI Online Pavilion JP EN

JPRSI Online Pavilion

As of December 26, 2024
Member Associations: 611

JPRSI List of Members
Click here to view the list of members.

Member Ministries, Agencies, and Relevant Organizations

Sector

Climate Change (Mitigation)	Climate Change (Adaptation)	Solid Waste	Air Pollution	Water Quality Improvement / Management	Johkasou	Recycle	Clean Energy
Smart City	Mercury	Marine Plastic Litter	Hydrogen Technology	ESG Investment	Finance, Insurance	Measures Related to COVID-19	Others

Industry

Manufacturing	Construction	Financial Services Insurance	Commercial & Wholesale Trade	Services (Specialty, Consultant)	Electricity Gas/Heat/Water	Transportation Communications	Mining Quarrying
Industry Associations	Education	Local Governments	Other Industries				

- Searching Platform/Online Pavillion for environment technologies in Japan
- More than 600 Japanese companies are participating in JPRSI
- JPRSI Website: <https://www.jprsi.go.jp/en>



Summary

- **GHG emission MRV system is one of the fundamental tools to promote and keep track reductions, especially to achieve NDCs and net-zero/carbon neutral target.**
- **There are various kinds of benefits for both companies and government to implement GHG measurement and reporting.**
- **Supply chain management is becoming more important to collaborate with supply chain partners to improve their corporate value through ESG disclosure, not only for PLCs but also non-PLCs and SMEs in ASEAN.**

Thank You

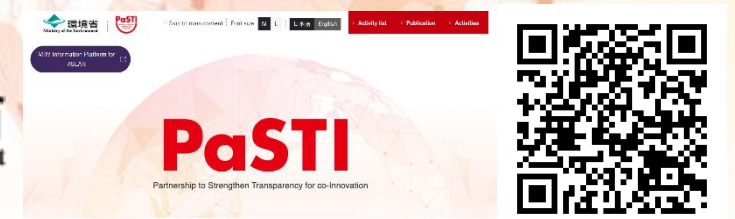
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PaSTI Website



<https://www.env.go.jp/earth/ondanka/pasti/index.html>

MRV Information Platform for ASEAN Region



<https://www.mrv-info.com/>

