

Carbon market trends in Asia and the Joint Crediting Mechanism (JCM)

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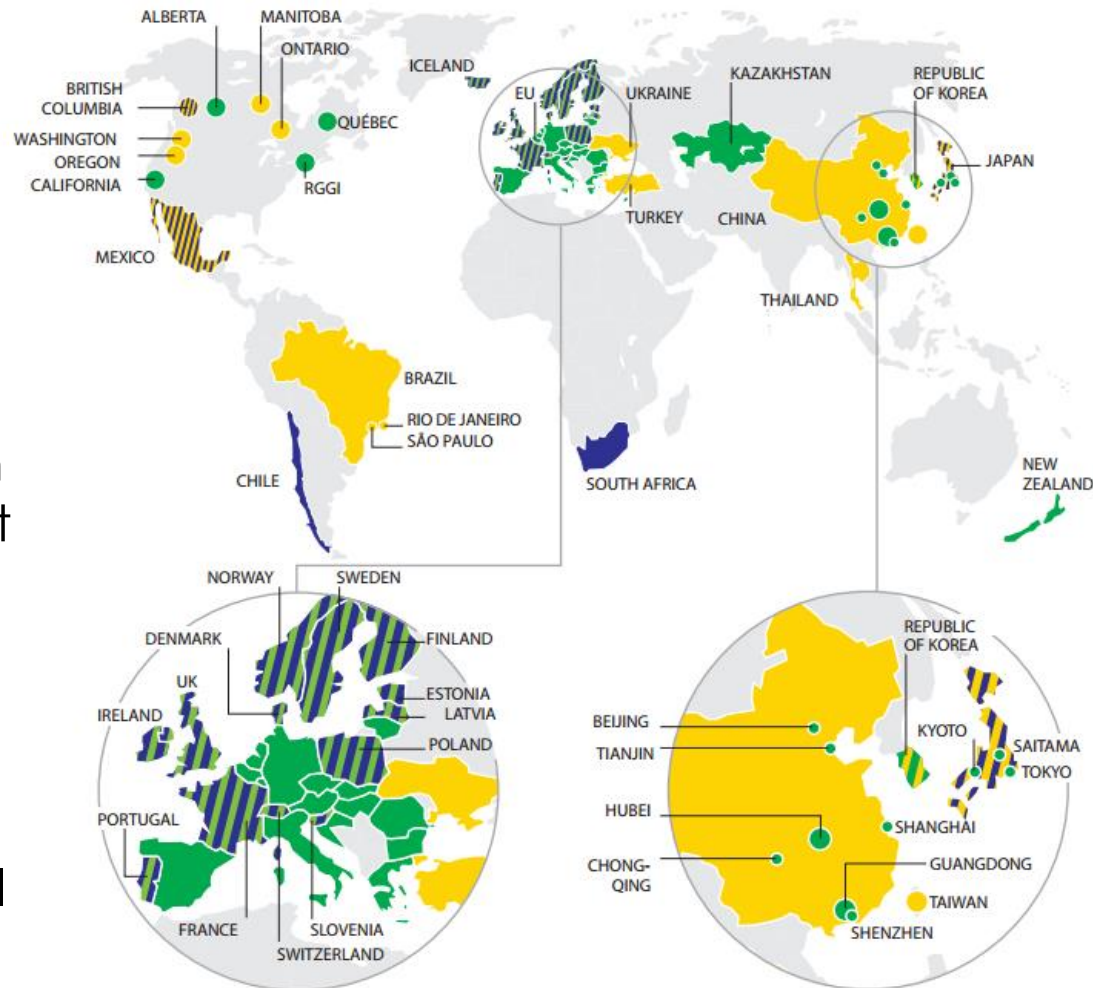
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Carbon Markets in the world

- Many countries started to consider the introduction of national ETS and carbon tax. Some countries will also plan to start it in the near future.
- There are many initiatives by the International organization such as Partnership for Market Readiness (PMR) and CPLC.
- Carbon Market Platform 1st Strategic Dialogue was organized on June 2016. Other meetings (NZ ministerial declaration on carbon markets and APCMR) were also organized.



Source: World Bank State and Trends of Carbon Pricing 2016

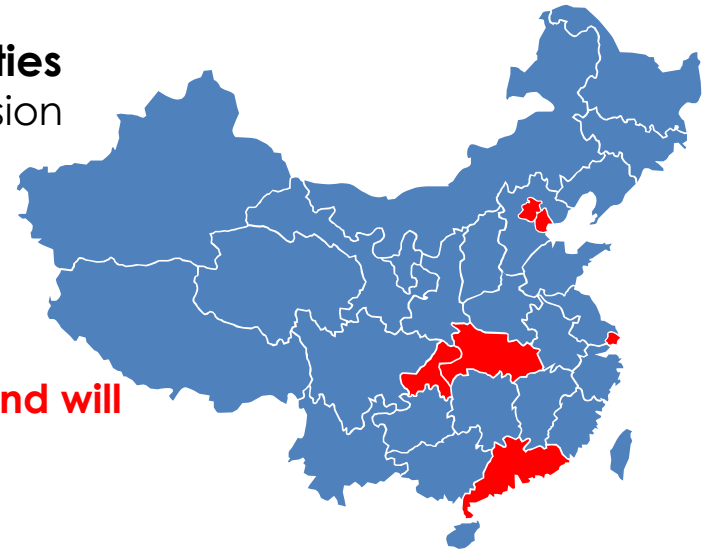
Carbon Market in China

Carbon Emissions Trading Pilots in 2 provinces and 5 cities

- The notification for launching pilot greenhouse gas emission rights trading scheme (2011)

Provinces: Guangdong and Hubei

Cities: Beijing, Chongqing, Shanghai, Shenzhen and Tianjin



National Emission Trading in China will be started in 2017 and will cover 8 sectors (22 subsectors). The threshold for capped participants will be 20,000tCO₂/year.

China voluntary offset credit scheme

Policy	The regulation for the voluntary offset credit scheme (adopted on 13 June 2012)
Competent authority	National Development and Reform Commission (NDRC)
Scope of gas	CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs and SF ₆
Trading Participant	National and international organizations, enterprises and individuals
Type of project	Renewable energy, Energy efficiency, Biogas, HFC reduction/avoidance and N ₂ O decomposition etc
Credit	China certified emissions reduction (CCER)
Methodology	Methodologies announced by NDRC http://cdm.ccchina.gov.cn/nDetail.aspx?newsId=39507&TId=20

Carbon Market in Rep. of Korea

Coverage

- Installation emitting over 25,000 t-CO₂/y or entities emitting over 125,000t-CO₂/y
- Voluntary participants via opt-in procedure

National ETS has started in 2015.

Allocation of emission permits

1 st phase (2015-2017)	2 nd phase (2018-2020)	3 rd phase (2021-2025)
100% free allocation	97% free allocation	Free allocation of 90% or below *

- 100% free allocation to trade-exposed carbon-intensive sectors which meet the requirements below

Offset (Domestic/International)

1 st & 2 nd phase	3 rd phase
international offset credits cannot be used	Limited use of international offset credits ✓ To meet up to 10% of a liable entities surrender obligations ✓ Volume must not exceed the number of domestic offset credits used.

Carbon Market in Thailand

Characteristics of T-VER

Type	Baseline and credit
Eligible projects	Energy efficiency, alternative energy, renewable energy, solid waste management, transportation management, forestry and green area, agriculture and other
Size of projects	No limitation. Projects can be bundled.
MRV method	Domestic guideline
Carbon credit	TVERs
Gas coverage	CO ₂ , CH ₄ , N ₂ O
Crediting period	7 years for non-forestry projects / 20 years for forestry projects.
Buyers	Government / CSR companies / Brokers
Status	Launch in Oct 2013

Characteristics of TVETS

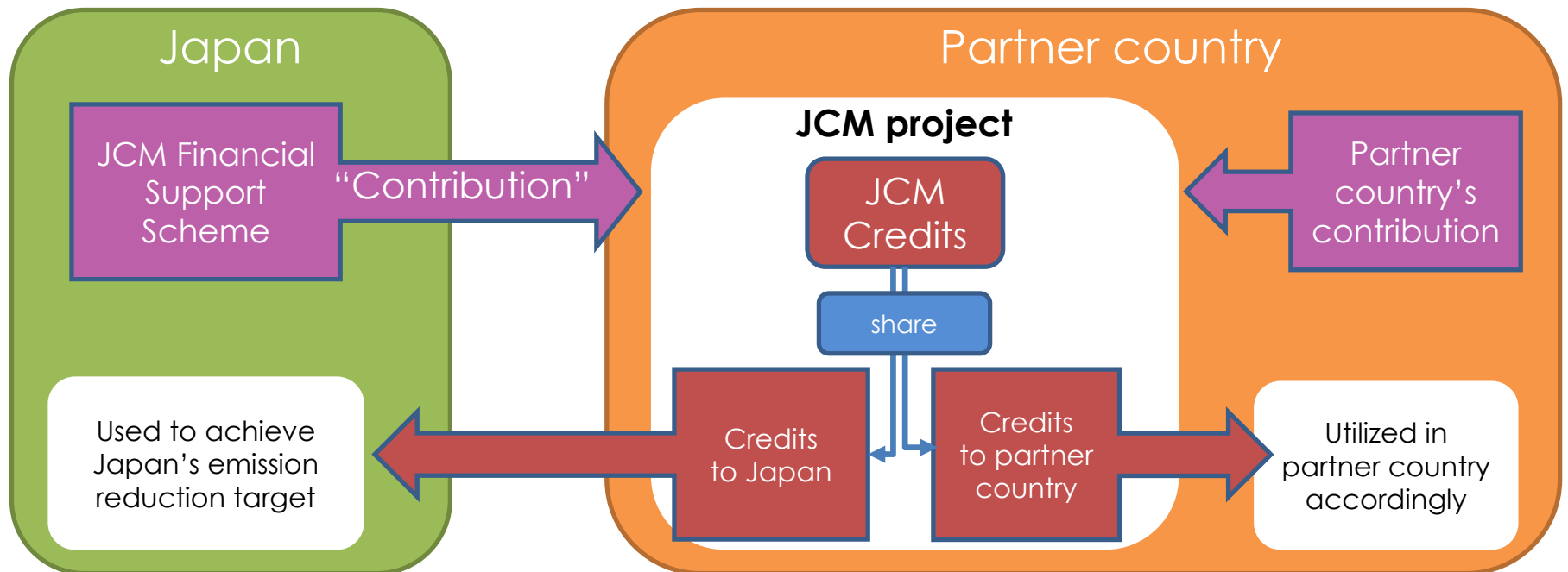
Type	Cap-and-trade
Target sector	It allows firms to enter the carbon market voluntarily without identifying target industries
MRV method	ISO 14064-1 / 14064-3 / 14065
Gas Coverage	Energy-related CO ₂
Allocation method	Grandfathering in trial phase
Buyers	Entities / Traders
Status	Launch in Nov 2014 1 st Trading period: (2015-2017, Pilot Phase) 2 nd Trading period: (2018-2020)
Flexibility measures	TVERs is eligible for offset.

Source: IGES Climate Policy and Market Mechanism Status Report

The Joint Crediting Mechanism (JCM)

Cooperation between Government of Japan and partner countries

- Facilitates greenhouse gas emissions reduction/removal projects by companies, cities, etc. in partner countries.
- As a result of emission reductions, “JCM credits” will be issued and utilized to achieve Japan’s emission reduction target and may be utilized in partner countries.
- JCM Financial Support from Japanese government is available.



JCM established in 16 countries since 2013



How is the JCM positioned under the international negotiation?

- JCM could be included in the cooperative approach

Paris Agreement

Cooperative approaches
(Article 6 para 2)

A mechanism authorized and guided by UNFCCC
(Article 6 para 4)

A framework for non-market approaches
(Article 6 para 9)

- Use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency the avoidance of double counting, consistent with guidance adopted by COP the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement. (Article 6 para 2)
- The use of internationally transferred mitigation outcomes to achieve nationally determined contributions under this Agreement shall be voluntary and authorized by participating Parties (Article 6 para 3)

Japan's INDC and the JCM

- **Japan's INDC:** 26.0% by fiscal year (FY) 2030 compared to FY 2013 (approximately 1.042 billion t-CO₂eq. as 2030 emissions)
- **Role of JCM:** The JCM is not included as a basis of the bottom-up calculation of Japan's emission reduction target, but the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction.
- **Emission reduction target through the JCM:** accumulated emission reductions or removals by FY 2030 through governmental JCM programs to be undertaken within the government's annual budget are estimated to be ranging from 50 to 100 million t-CO₂

15 projects already registered by governments

Country	Technology Type	Location
Mongolia	Heat Only Boilers	118th School of Ulaanbaatar
Mongolia	Heat Only Boilers	Bornuur soum public facilities
Indonesia	Cooling system (refrigerator, freezer)	Frozen Food Processing Plant
Indonesia	Cooling system (refrigerator, freezer)	Food Industry Cold Storage
Indonesia	Centrifugal Chiller	Textile factory
Indonesia	Centrifugal Chiller	Textile factory
Indonesia	Centrifugal Chiller	Textile factory
Indonesia	AC System, LED Lighting, Fridge/Freezer	Convenience store
Vietnam	Tachograph	Trucks, trailers
Vietnam	Inverter-type room air conditioners	Hospitals
Vietnam	Amorphous transformers	Electricity grid
Vietnam	Boiler, heat pump, LED lighting	Hotel
Palau	Small-scale Solar PV	School rooftop
Palau	Small-scale Solar PV	Building rooftop
Palau	Small-scale Solar PV	Building rooftop

JCM credits issued
to Japanese and Host
country side



How to encourage participation from private sector to carbon market

- Enhancing the transparency (such as public participation and access to the information)
- Reviewing policies and measures after the pilot stage (In case of China pilot ETS, capped participants pointed out that it was necessary to consider the integration of each rule and standard.)
- Establishment of a predictable market

JCM Partner Countries High-Level Meeting at COP22



Source: Ministry of the Environment Japan (MOEJ)
<https://www.env.go.jp/press/103253.html>

Thank You

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