33 Average trading carbon price

Indicator type **Core indicator** *Published*

Versioning

First publication	1/26/2017	Latest update	8/27/2021

Area and sub-area

Area and sub-area	Mitigation	Environmental governance and regulation

Presentation

Tier	1
Indicator definition and description	Average price paid on the market for 1 ton CO_2 equivalent during the reference year.
Unit of measure	US dollars per ton of CO_2 equivalent
Coverage	Entities involved in carbon trading
Spatial aggregation	National economy
Reference period	Calendar year
Update frequency	Annual
Base period	Not applicable

Disaggregation (operational indicators)

Disaggregation (operational indicators)	Comments
Temporal (by month, by season)	

Other related -indicators (e.g.contextual, proxy, other core indicators)

ID	Subindicator	Type
66	Average non-trading carbon price (carbon tax)	Contextual indicator
67	Number of CO_2 permits allocated	Contextual indicator
68	Effective carbon price	Contextual indicator

Relevance

Policy context and rationale	A carbon price is a cost applied to carbon pollution to encourage sources of carbon pollution to reduce the amount of greenhouse gas they emit into the atmosphere. Carbon pricing is designed to capture what are known as the external costs of carbon emissions. The indicators is relevant to climate change mitigation policies and measures implemented under the UNFCCC, its Kyoto Protocol and the Paris Agreement under the UNFCCC; particularly relevant in the context of market-based mechanisms under the Kyoto Protocol.
Related SDG indicator (SDG I.)	Not applicable
Relation w SDG-I.	
Related Sendai Framework I.	Not applicable

Policy references

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Document title	Link
Kyoto Protocol (United Nations Climate Change, 1997)	https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol/kyoto-protocol-targets-for-the-first-commitment-period
United Nations Framework Convention on Climate Change (United Nations Climate Change, 1994)	https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change
Paris Agreement (United Nations, 2015)	https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

Methodology

Methodology for indicator calculation	The indicators is calculated as weigthed average (by volume) of carbon prices paid by companies participating in emmissions trading scheme (ETS) resident in the country, on stock exchanges during the reference year.

Methodology references

Classification syst.	Not applicable

Data sources

Main source	Other than official statistics

Explanation

SEEA Accounts that can serve as data sources

UN-FDES

International databases containing this indicator

European Energy Exchange	https://www.eex.com/en/market-data/environmental-markets/eua-primary-auction-spot-download

Comments

Comments

There are two main types of carbon pricing: emissions trading systems (ETS) and carbon taxes:
• An emissions trading system – also known as a cap-and-trade system – caps the total level of greenhouse gas emissions across a given industry, or the whole economy, and then allocates or auctions emission allowances to companies operating in that sector. By creating supply and demand for emissions allowances, an ETS establishes a market price for greenhouse gas emissions.
• A carbon tax directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or – more commonly – on the carbon content of fossil fuels.
Only the first type of carbon pricing is covered by the indicator.