



مركز الملك عبدالله للدراسات والبحوث البترولية  
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# Innovative policies under the Paris Agreement framework (Article VI)

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14 September 2020

# Recent papers by KAPSARC researchers related to Article 6

**This presentation draws heavily on these papers, especially the first in the list, Zakkour et al. (2020).**

- **Paul D. Zakkour, Wolfgang Heidug, Andrew Howard , R. Stuart Haszeldine, Myles R. Allen & David Hone (2020):** Progressive supply-side policy under the Paris Agreement to enhance geological carbon storage, Climate Policy, DOI: 10.1080/14693062.2020.1803039
- **Paul Mollet, Wolfgang Heidug, Paul Zakkour and Eric Williams:** Carbon Sequestration Units (CSUs): A New Tool to Mitigate Carbon Emissions. January 2020.
- **Paul Zakkour and Wolfgang Heidug:** A Mechanism for CCS in the Post-Paris Era. April 2019, Doi: 10.30573/KS--2019-DP52

# Article 6

- Article 6 is the means through which Parties to the Paris Agreement may cooperate to achieve their stated climate mitigation contributions
- Much of the international debate since adoption of the Paris Agreement has focused on how its Article 6 mechanisms can support the wider deployment of carbon pricing and carbon markets
- Carbon pricing by itself may not be sufficient to induce change at the pace and scale required for the Paris Agreement targets to be met
- A mix of other well-designed, complementary policies may be needed

# Establishing a storage based mechanism under Paris Agreement

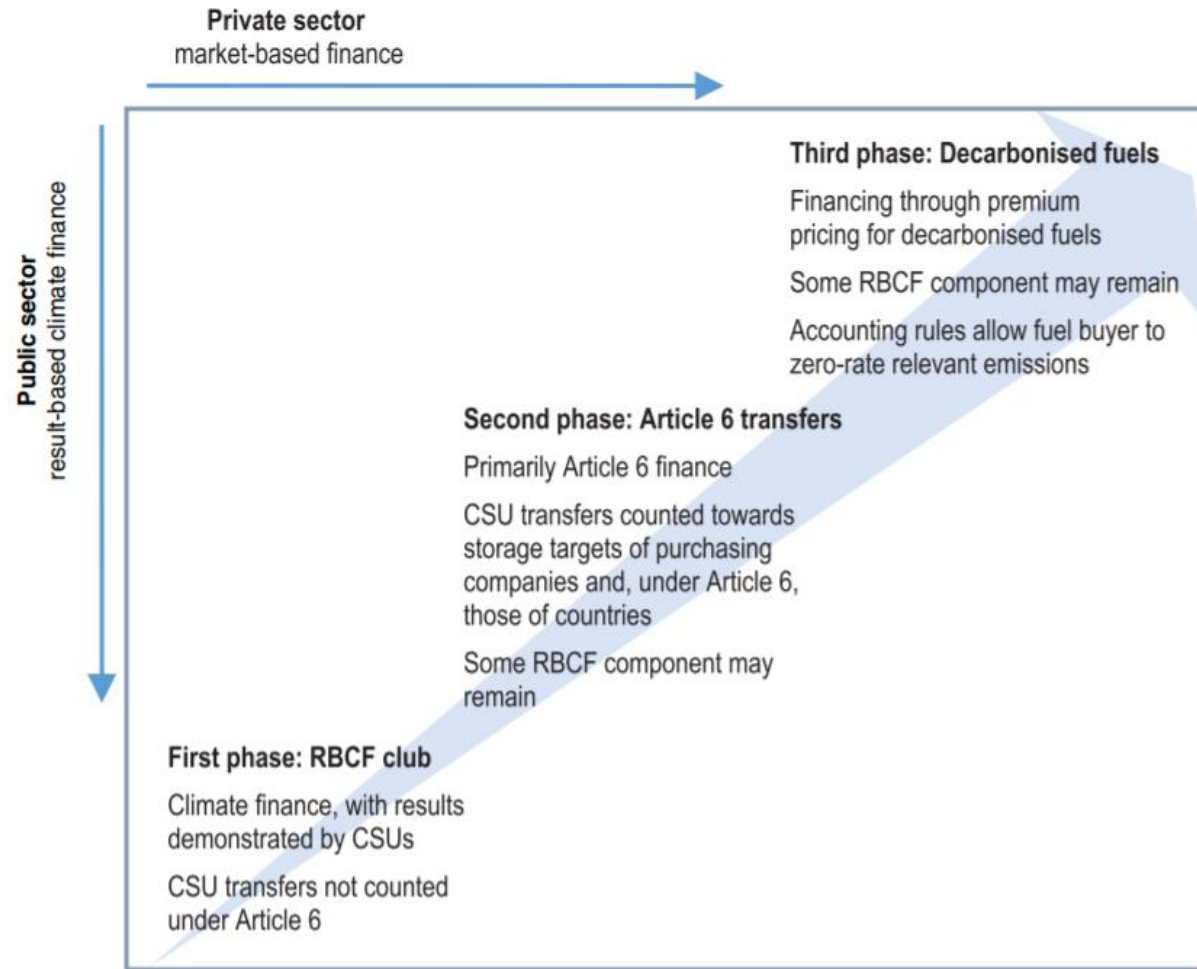


Figure 1. Phased approach to supply-side policies for CCS.

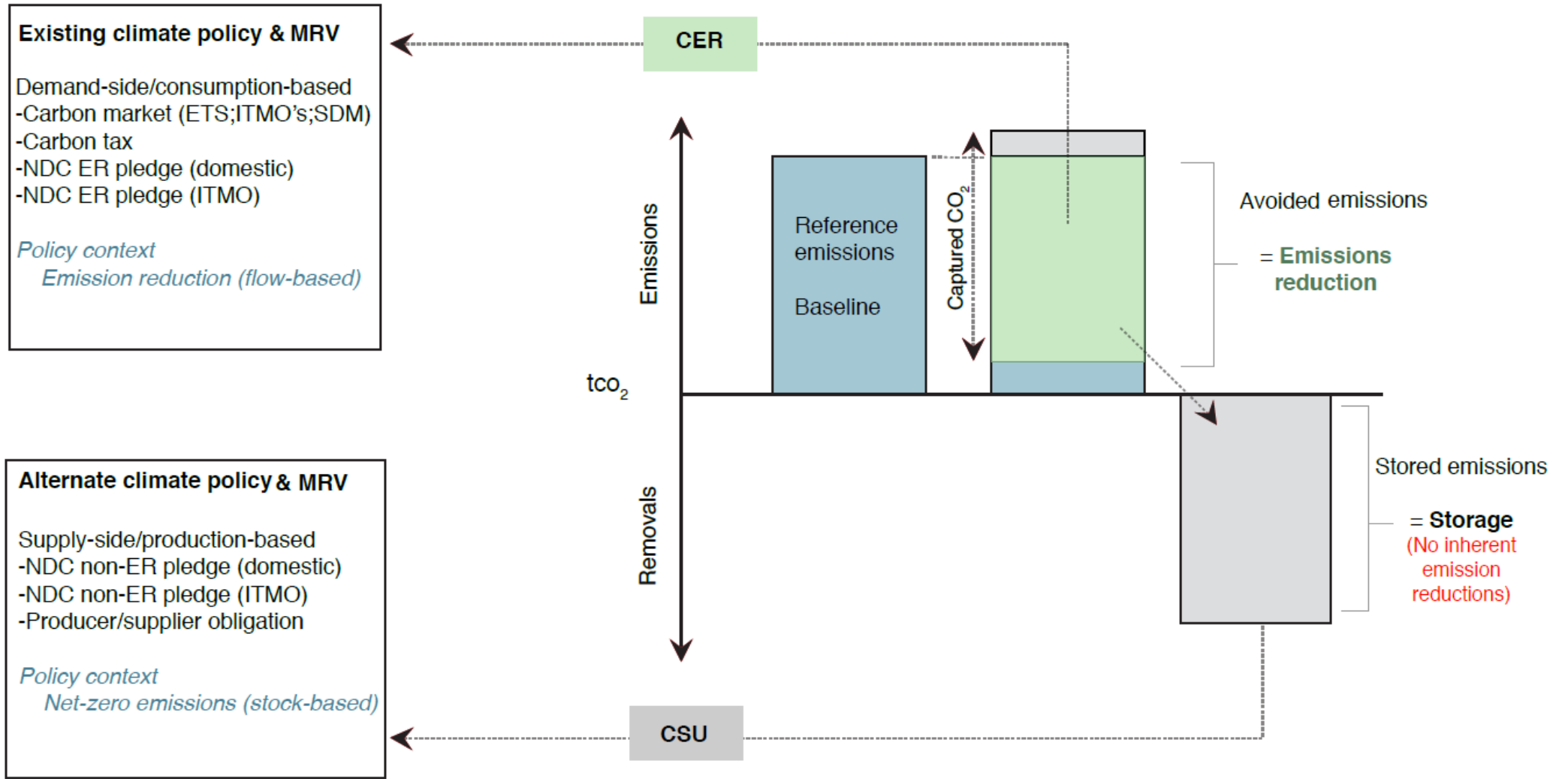
# Phase one: Results based carbon finance (RBCF) ‘club’

- The Paris Agreement allows for countries to cooperate and support each other in their mitigation actions, including the voluntary use of cooperation mechanisms under Article 6 to accelerate emissions reduction and removal activities
- Paris allows countries to establish innovative approaches aligned around common interests such as a ‘club’ of countries that expands in reach over time
- Likeminded countries -- 40 countries mention CCS in their NDCs -- could establish a CCS technology ‘club’ that adopts a storage crediting mechanism as a means to increase geological carbon stocks, and which could be used as an offset against fossil fuel supply
- Establishing a CCS technology ‘club’ under Article 6 would ensure that increases in geologic carbon stock are legitimized by Paris Agreement measuring, reporting and verification rules.

# Carbon storage units (CSUs)

- A transferable 'carbon storage unit' (CSU) represents a verified tonne of CO<sub>2</sub> securely stored in a geological reservoir
- A CSU can be held or surrendered by fossil fuel producers to demonstrate a balance – or offset – against carbon in produced fuels
- A CSU differs from units used in conventional climate policy mechanisms, which typically measure either allowable emissions or emission reductions

# Parallel incentives: CSUs and CERs



Key: CER = Carbon emission reduction; CSU = Carbon storage unit; ETS = Emissions trading scheme; ITMO = Internationally transferred mitigation outcome; SDM = Sustainable Development Mechanism under Article 6.4 of the Paris Agreement; MRV = Measurement, reporting and verification, ER = Emissions reduction.

# RBCF clubs in operation

- Members of the club would pool financial resources into a common RBCF fund and enter into forward contracts to procure CSUs from geological storage developers through an open tendering process
- The prices, volumes and timeframes for contracted CSUs would be determined through the procurement process, driven by
  - the size of the fund
  - technical details and costs of particular projects
  - availability of additional layers of revenue or incentives (including carbon pricing)
  - provision of other sources of finance
  - financial metrics (e.g. agreed project internal rate of return), etc.
- While the surrendered CSUs could be disbursed among purchasing club members as a demonstration of geological carbon stock additions, under an RBCF arrangement this would not involve transfers of mitigation outcomes linked to Article 6. Thus, the incentive to participate would be limited to a shared interest in kickstarting CCS deployment



# Phase two: Article 6 transfers

- This involves switching from results-based finance to transfer-based finance under Article 6 of the Paris Agreement
- Implementation could continue using the 'club' arrangements from phase 1, but with the acquisition and transfer of CSUs contributing as mitigation outcomes towards acquiring countries' NDCs – in terms of storage not reductions of emissions.
- As such, club members would need to establish specific geological storage targets in their NDCs against which the CSUs could be counted
- For companies participating in a club, CSUs could potentially be counted against internal net-zero targets and could have value for financial disclosure purposes

# Benefits of Article 6 transfers

- 1) it would act to enhance mitigation ambition by establishing explicit geological storage pledges that would be additional to that of emission reduction pledges in NDCs
- 2) the co-existence of the geological sequestration target and emission reduction targets in NDCs would give a basis for maintaining the amplified and parallel incentives for the capture and geological storage of CO<sub>2</sub> without double counting to risk environmental integrity
- 3) governments could transfer responsibility for acquiring CSUs to the private sector using domestic policies such as low carbon fuel standards or other measures to oblige fuel suppliers to bundle CSUs with products

# Phase three: decarbonized fuels

- Preserves the parallel incentives to reduce emissions and store carbon while under a more coherent view of demand- and supply-side policy approaches and stock and flow-based accounts
- Fossil fuel producers could bundle CSUs together with fossil fuel supplies and thereby take direct responsibility for scope 3 emissions from their products
- Bundling could be implemented voluntarily, based on fuel suppliers' own perceptions of the potential price premium available for low-carbon or decarbonised fossil fuels, or mandated by fossil exporters and/or importers
- Decarbonized fuels could help fossil fuel producers
  - align their business models to a carbon-constrained world
  - place the incentive to develop geosequestration activities in their hands as the entities with the best know-how to develop them
  - mobilize their technical and financial resources to deliver ambitious and meaningful climate action

# Thank you!

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