

# Subnational implementation pathways for the national pricing system: Challenges and opportunities

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# Fridtjof Nansen Institute

- Independent foundation
- International environment, climate change, energy and resource management and politics
- Political science, law, economics, history, geography, social anthropology and development studies: academic research & contract research



# Broader drivers for ETS



- 28 % of global emissions
- Paris Agreement
- Global climate governance
- Climate change growing concern
- Air pollution - Coal
- Energy revolution 2014
- Carbon market tool to address air pollution & emissions



# High level policy support

- Xi Jinping 2015 state visit to the US
- Recent meeting of Leading Group on CC and energy
- Environment on top
- Ecological civilization
- Driver/incentives to act sub-nationally



促进生态文明 共建美丽中国



# Subnational driving change?

Source: Swartz, Jeff (2016); *China's National Emissions Trading System: Implications for Carbon Markets and Trade*,



- GHG mitigation and peaking by 2030
  - Local governments crucial to reach targets, but different levels of efforts and interest.
- Ex. cities:
  - **Shanghai** proactive: gov. capacity & support
  - **Wuhan:**
  - Increase of electricity, natural gas and new energy consumption
  - Share of coal in the total energy mix by 2020: 36.58% (2015: 50.03%)

# Subnational implementation – also a barrier?

- China's policies broad, visionary
- Multitiered system can hamper efficient implementation
  - local level governments sometimes try to hinder or slow down implementation of policies
- Responsible for implementation of central-level policies
- competing development interests and the uneven development levels in the country
- Differentiated implementation approach necessary



# Institutional changes-impact?

- NPC March 2018 - MEP to Ministry of Ecology and Environment (MEE).
- Widened mandate
  - Climate change portfolio from NDRC
  - NDRC & NEA still in charge of energy
  - Close coordination needed
  - Consolidation in one ministry/align with other policies such as Blue-Sky War
  - Inspection and monitoring
- Responsibility to Ecology and Environment Bureaus (from prov DRCs)
  - ETS trained staff at DRCs not to env. bureaus



# Power sector – push subnational implementation?

- SOEs -important players in the carbon market
  - had learned and benefited from Certified Emission Reduction (CER) trading through the CDM
- Data availability
  - power sector statistical information reporting system developed by China Electricity Council
- ETS depend upon electricity market reforms
  - amended its Electric Power Law in 2018, providing a framework for to introduce economic dispatch and competition in power markets
  - Spot Power Market Pilots March 2019
  - 13th FYP on RE Dev. Link to carbon market





# A few more challenges...

- Weak and differencing price signals
  - Lacking incentives to act
- Establish ETS Regulations
- MRV
- High quality data availability & info sharing
- Third party Verifications
- Enforcement & non-compliance
- Provinces in charge:
  - how to ensure emissions quality data for verified emissions reductions



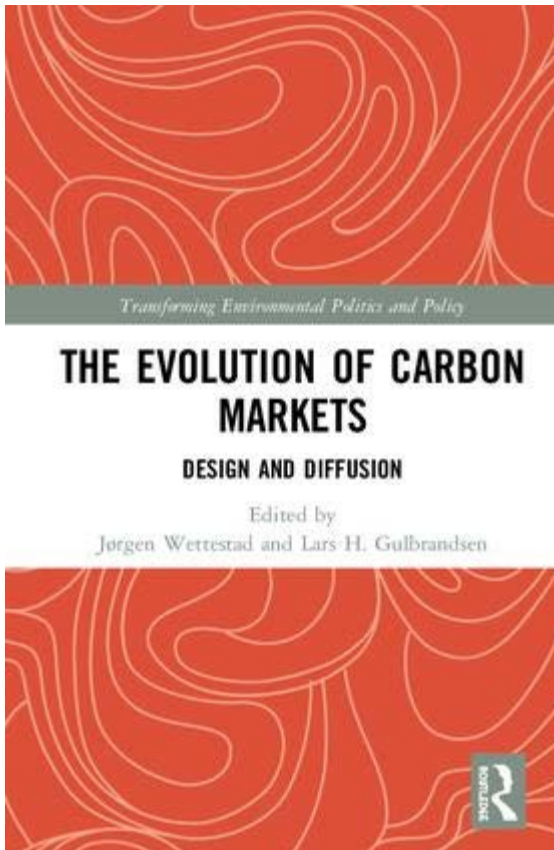
# Looking ahead

- Ensuring accurate data from provinces
  - Risk to the market integrity if data inaccurate
  - Capacity issue for central authorities to approve verified emissions data /MRV report
- The biggest opportunity?
  - provincial authorities to pursue a more stringent climate policy than national
- More capacity building needed
- International projects support implementation at subnational levels
- Research
  - incentives and barriers to national policy implementation
  - a need to better understand how the sub-national processes contribute to the framing of national policies



# Carbon markets

<https://www.fni.no/publications/the-evolution-of-carbon-markets-design-and-diffusion-article1668-290.html>



- Carbon markets globally
- Chapter on China:
  - ‘China’s carbon market: In it to learn it’
  - Key drivers behind China’s ETS as a GHG mitigating policy tool
- Provincial & city pilots





# Thank you!

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# Selected readings

- Carbon Pulse articles <http://carbon-pulse.com/>
- Hart et al. 2019. Mapping China's Climate and Energy Policies. December 2018 Edition
- Heggelund, Gørild, Iselin Stensdal, Maosheng Duan and Jørgen Wettestad. 2019. China's Development of ETS as a GHG mitigating policy tool: a case of diffusion or domestic drivers? Review of Policy Research <https://onlinelibrary.wiley.com/doi/abs/10.1111/ropr.12328>
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- ICAP Emissions Trading Worldwide <https://icapcarbonaction.com/>
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- Lo et al 2019. The neoliberal policy experimentation on carbon emissions trading in China, EPC: Policies and Space
- Sandalow, David 2018. Guide to China's Climate Policy 2018.
- Stensdal, Iselin 2019. Norms and flexibility: Comparing two mitigation policies implemented in shanghai, Environmental sciences and Policy 92:281-288.
- World Bank Carbon Pricing Report 2019.