# Article information:

Low-carbon innovation induced by emissions trading in China | Nature Communications
<https://www.nature.com/articles/s41467-019-12213-6>

# Article summary:

1. Emissions trading schemes (ETS) have become a popular policy for climate mitigation, covering almost 15% of global carbon emissions and with 20 programs in operation worldwide.

2. China has initiated seven regional ETS pilots since 2013, representing the country's first use of a market-based instrument for climate mitigation, and providing rich opportunities for policy evaluation and learning.

3. Firm-level evidence shows significant induced innovation effects of the ETS both directly on ETS firms and indirectly on large non-ETS firms, with the effect driven by firms subject to mass-based allowance allocation rather than rate-based allowance allocation.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "Low-carbon innovation induced by emissions trading in China" published in Nature Communications discusses the impact of emissions trading schemes (ETS) on low-carbon innovation in China. The authors use a quasi-experimental design and disaggregated patent information to evaluate the effect of ETS pilots on low-carbon innovation. They find that the ETS has a significant induced innovation effect both directly on ETS firms and indirectly on large non-ETS firms, which helps to break out of path dependency from a carbon-intensive economy.

The article provides valuable insights into the potential benefits of emissions trading schemes for promoting low-carbon innovation. However, there are some potential biases and limitations to consider. Firstly, the study only focuses on patent data as a measure of innovation, which may not capture all forms of innovative activity. Secondly, the study only considers the short-term effects of ETS pilots, and it is unclear whether these effects will be sustained over the long term.

Additionally, while the authors acknowledge that policy design can influence the effectiveness of emissions trading schemes, they do not explore alternative policy instruments or consider how different policy combinations might interact with each other. This limits our understanding of how emissions trading fits into broader climate policy frameworks.

Furthermore, while the authors note that China is the largest CO2 emitter and has initiated seven regional ETS pilots, they do not discuss China's overall progress towards meeting its climate targets or address potential risks associated with implementing an ETS in a country with complex political and economic structures.

Overall, while this article provides valuable insights into the potential benefits of emissions trading schemes for promoting low-carbon innovation in China, it is important to consider its limitations and potential biases when interpreting its findings.

# Topics for further research:

* China's progress towards meeting its climate targets
* Risks associated with implementing an ETS in China
* Alternative policy instruments for promoting low-carbon innovation
* Long-term effects of ETS pilots on low-carbon innovation
* Interactions between different climate policy frameworks
* Political and economic structures in China and their impact on climate policy

# Report location:

<https://www.fullpicture.app/item/a7f04927f716ff896b77dbedc9701971>