



Cost and choice - how economic incentives drive cities to adapt to climate change despite uncertainty

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Climate change adaptation is often perceived costly and counter-effective to local economies. However, meanwhile we observe that cities including Hamburg and Rotterdam have invested in both hard and soft adaptation measures and they remain competitive. In literature, climate adaptation measures are often described as costly investment which might hinder local governments for early initiatives. However, in empirical evidence, we see many cities are very keen on climate change adaptation actions at the local level and the cities report that they see economic opportunities in local climate adaptation. The data sample taken for analysis is questionnaires responded to CDP cities 2012. Among 65 participating cities, 84% confirmed that they have economic opportunities in climate change efforts. The research is carried out to answer the main arching research questions: How does it pay for cities to adapt to climate change? How does climate change present any economic opportunities in cities? Why are some cities more willing to take initiative and invest in climate adaptation under uncertainty than others? Even with uncertainty, why do some cities tend to see more opportunities in climate change than others? How are cities driven to react to climate change under uncertainty? The theoretical background is built based on Ostrom's theory exploring multiple governance on climate change and Buchanan's theory of cost and choice. The methodology carried out includes content analysis, qualitative analysis and statistics. The research outcomes aim to contribute to literature by presenting positive cases which receive benefits of local climate change adaptation and to investigate incentive structures which motivate cities to take actions in climate change despite uncertainty.