

# ***Comparing Emission Trading Schemes in Kazakhstan and Korea: design characteristics, processes of the decision-making, and the behavior of the involved actors***

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## **Overview**

In this research we first describe the background for the design characteristics of the Kazakhstan Emissions Trading Scheme (KzETS) during its three phases. We then compare these characteristics to the Korea Emissions Trading Scheme (KETS) and use the European Union Emission Trading Scheme (EU-ETS) as a benchmark. We aim to systematically describe regulations/policies taken by both the Kazakstani and Korean governments, their timing and content. Lessons can be learned from Kazakhstan's experiences, whether similar or different to the KETS, as Kazakhstan (GNI per capita of USD7,970 in 2017) is an upper middle-income country while Korea (GNI per capita of USD28,380 in 2017) is a high-income country (World Bank, 2019). Furthermore, the countries differ on their level of authoritarianism with South Korea ranked as the 21st most democratic country while Kazakhstan ranked as the 144th most democratic country by the Economist Intelligence Unit (2019) in 2018. Many scholars have opted for performance indices that are designed to reflect the policy-makers' overall commitment. Our research uses a more sophisticated fine-grained analytical framework to study and compare climate change policy-making in Kazakhstan and Korea. Specifically, we perform an ex post analysis of government regulation and compare the respective processes of the decision-making and the behavior of the involved actors. Our results can be shared with other developing and emerging economies that are planning to implement emission trading schemes.

## **Methods**

We strive to analyze the various types of policies and performance benchmarks in the KzETS and KETS in a systematic, standardized manner. We use a three-step methodology for systematically comparing the KzETS and KETS across legislation and government policies. These three steps are: (1) policy classification, (2) the comparison of quantitative thresholds, and (3) the comparison of governance approach and policy restrictiveness of government regulations. The application of our framework to both government regulations provides comparable data that can be used to study the interaction between state and non-state actors. Understanding this interaction is of crucial importance in determining the effectiveness of public policy. This article is not a study of the overall effectiveness of different policies. However, we are interested in the social and economic contexts in which the emissions trading scheme takes place as well as the formal and informal procedures for implementing the scheme. Soloman (1995) suggests that three conditions are necessary to increase the likeliness of a successful implementation of emissions trading: (1) economic incentives for facilities to trade, (2) no additional risks or responsibilities associated for the buyer of an allowance permit, and (3) public and business support. However, both the KETS and KazETS are a market-based instruments that have been grafted on economies that are still extensively regulated and suffer from several distortions such widely prevalent energy subsidies, regulated energy prices, dominant role of SOEs and crony capitalism. We use the following four attributes to assess the modification of ETS policies to local conditions: (1) level of stakeholder involvement, (2) level of integration of the knowledge of (external) experts with context-specific knowledge of local experts and stakeholders, (3) level of diffusion strategy put in place in an early stage of the project, and (4) level of adaptive management implemented.

## **Results**

Very preliminary results indicate that the governments of Korea and Kazakhstan have taken different approaches to adapting their ETSs to local conditions. The KETS engaged stakeholders two years prior and during its implementation as well as continues to engage stakeholders and experts in committees and work groups. In contrast, the government of Kazakhstan pursued a "fast-track" approach to implement the KzETS that had very little support by and consultation with the public as well as private business. As a result, during Phases 1 and 2 of the KzETS,

private industry and business associations regularly called for the suspension or termination of the country's ETS. However, since the suspension of the KzETS in 2016, the government of Kazakhstan has begun to involve business associations in the development of the scheme's policies. But there remains only a minimal involvement of stakeholders and experts in the KzETS.

## **Conclusions**

Under "best practices" policymakers should copy the best practice examples but adjust them to take into account local realities. Policymakers must identify the preconditions existing in their jurisdiction along the meta-dimensions of (1) social, political, economic, geographic and knowledge constraints; (2) level of price distortions; and (3) strength of local financial markets. Necessary conditions for an effective ETS include investment by entrepreneurs (Weishaar, 2014; Pizer, 2008; Tol, 2008) and increases in energy prices to trigger behavioral changes in customers. However, without gathering accurate data and properly identifying the constraints faced by entrepreneurs and other stakeholders it is unlikely that proper policy design and credible policy targets can be developed and the appropriate amount of investments made.

## **References**

The Economist Intelligence Unit. 2019. Democracy Index 2018: Me Too? Available at <http://www.eiu.com/democracy2018>

Pizer, WA. 2008. Economics versus Climate Change. In Guesnerie R and Tulkens, H. (eds), The Design of Climate Policy. MIT Press: Cambridge, Massachusetts. 201-216.

Tol, RSJ. 2008. Economics versus Climate Change: A Comment. In Guesnerie R and Tulkens, H. (eds), The Design of Climate Policy. MIT Press: Cambridge, Massachusetts. 217-220.

Weishaar, SE. 2014. Emissions trading design: A critical overview. Edward Elgar Publishing: Northampton, MA, USA.

World Bank. 2019. GNI per capita, Atlas method (current US\$). Available at <https://data.worldbank.org/indicator/ny.gnp.pcap.cd>.