

EXECUTIVE SUMMARY

THE EXPANSION OF CARBON MARKETS IN CHINA, JAPAN, AND KOREA have laid the foundation for discussions on potential carbon market cooperation within Northeast Asia. A carbon market is an artificial commodity market created by the government to value and reflect environmental externalities; by its nature, companies perceive it as a regulation. The role of the private sector (which for this report includes state-owned enterprises) is vital for achieving successful carbon market cooperation in the region. Since the private sector is directly affected by the implementation of an emissions trading system (ETS), it is important to consider how private sector stakeholders would perceive carbon market integration.

This report presents how carbon market linkage within the three Northeast Asian countries of China, Japan, and the Republic of Korea (hereafter, Korea) could occur in concert with industry preferences. The first chapter assesses the carbon market characteristics of Northeast Asia and discusses similarities and differences between systems. The second chapter addresses the potential impacts of carbon market linkage on the private sector. In the third chapter, roles for business leaders are suggested to achieve effective market cooperation and capture new business opportunities that can unlock the potential of private sector investment.

CARBON MARKETS IN CHINA, JAPAN, AND KOREA

While China, Japan, and Korea are taking different approaches in developing their respective carbon markets, there are similarities in their ETS-related experiences. This includes the adoption of mainly free allocation in the initial phase, the use of grandfathering with partial benchmark allocation, and the use of domestic offset credits albeit with restrictions.

The three countries have varying emissions and sector coverage, traded volumes, and price levels, among other differences. The Korea emissions trading scheme (KETS) has the largest national emissions coverage (at 68 percent) and the highest carbon price. Taking into account the sectors covered by the national ETS and the regional pilot systems, emissions covered by the ETS in China are approximately 40 percent in the near term. Since Japan only operates ETSs on the subnational level in Tokyo and Saitama, the coverage is relatively low, accounting for approximately two percent of the country's total national emissions.¹ In terms of the market results to date, the pilot systems in China have the largest traded volume, whereas Japan and Korea have a higher carbon price. How these differences could impact the ETS enterprises and other private sector stakeholders should be considered in advance to further drive market cooperation across Northeast Asia.

OPPORTUNITIES AND CHALLENGES OF CARBON MARKET COOPERATION FROM THE PERSPECTIVE OF PRIVATE SECTOR PLAYERS

Carbon market linkage can yield benefits by increasing market liquidity, reducing risk through price stabilization, and achieving cost-efficient reductions by providing more mitigation options for offsetting GHG emissions. In particular, a multinational company doing business in multiple countries can find cheaper options for meeting its regulatory compliance commitments through access to international credits. Conversely, uncertainty in linked systems creates risk and operational challenges for companies if the framework and rules regarding linkages are unclear.

Potential carbon market linkages will give greater incentives to Chinese companies to invest in reducing GHG emissions, because these actors could sell emission credits to ETS enterprises in Japan and Korea, which have relatively high marginal abatement costs. On the other hand, China may face challenges in meeting its Nationally Determined Contribution (NDC), since linkage would allow some reductions that would be counted toward its NDC target to be transferred and counted as reductions in Korea or Japan. To prevent such problems, governments could limit the volume of transferrable credits to unlock private sector investment in low-carbon technologies while securing their NDC targets.

Without a mandatory nationwide ETS, the benefits of market linkage would be reduced for Japanese firms, since linkage would only be possible at subnational levels. More fundamentally, the absence of a national-level ETS may be a significant obstacle for Japanese companies to actively participate in the carbon market linkage. Even if Japanese companies manage to attain carbon credits by investing in China and Korea, new policies would be necessary for them to use these credits within Japan. One way of enabling utilization is to allow companies under the carbon tax to use such credits obtained from the linkage market to alleviate the carbon tax burden.

Korea has the smallest national carbon emissions and the highest carbon credit prices among the three countries. ETS enterprises in Korea, therefore, may face the largest impact by an integrated carbon market in Northeast Asia. Korean companies can substantially benefit from the increasing liquidity and the price stabilization effect of a regional linkage. This inflow of cheaper carbon credits will benefit the ETS enterprises but would also hamper the growth of companies with business portfolios mainly in low-carbon technology. The introduction of a price floor for carbon prices is a way to alleviate this issue. Another challenge would be that a one-direction inflow of carbon credits and outflow of national wealth could create public opposition to linkage. However, an existing policy in Korea that limits the inflow of emission credits coming from overseas could minimize this problem.

PRIVATE SECTOR ACTION FOR CARBON MARKET LINKAGE

The opportunities for companies from a linked carbon market in Northeast Asia are greater than the drawbacks. This report recommends three actions private sector actors can take to help drive carbon market cooperation in Northeast Asia.

First, companies can proactively suggest restricted linking scenarios that minimize conflicts of interest and create co-benefits for the three countries. Since the power sector accounts for the largest portion of carbon market coverage, it is likely that market linkage in Northeast Asia will begin with it. The power sector has minimal impacts on the trade competitiveness of other sectors such as steel and petrochemicals, since electricity is generally produced and consumed domestically. Moreover, the power sector is one of the major sources of air pollution across Northeast Asia, and cooperation in this sector could deliver large co-benefits.

Second, companies can initiate a cooperative framework to develop business opportunities that involve investment and the participation of businesses across China, Japan, and Korea, as well as the development of carbon offset accounting standards and methodologies. A representative case is a joint project that can resolve both air pollution and GHG emissions resulting from coal-fired power plants. Companies in China, Japan, and Korea can jointly propose technology development and projects that address domestic and

transboundary air pollution to their respective governments. If pursued alongside limited carbon market links, ensuing emissions reductions could be accounted for in shared ways across the three countries.

Another potential joint mitigation project is the development of an interconnected grid system by China, Japan, and Korea in countries such as Mongolia, where the potential for renewable energy power generation is abundant yet underdeveloped. The benefit of the generated electricity could be shared through regional grid links, and emissions reduction credits from the project could be issued to China, Japan, and Korea. Businesses in Northeast Asia are also cooperating to discuss the potential to co-develop an interconnected grid project, which would be bolstered through government support. Carbon market linkage could add value by providing a platform in which companies discuss and develop a methodology for measuring and verifying the emissions reductions of a joint mitigation project.

Finally, companies would benefit from engaging government leaders to request public financing, which is essential in catalyzing large-scale investment in low-carbon projects. Prospective projects that reduce fine dust and GHG emissions from coal-fired power plants would provide public goods in all three Northeast Asian countries, and thus could and should be recognized beyond just their ability to generate profits. A public-private partnership in which the three governments establish a joint fund and crediting arrangement could thus be beneficial. For the grid connection project in Northeast Asia, governments can catalyze private investment by helping firms access development finance through the Asian Infrastructure Investment Bank (AIIB), Green Climate Fund (GCF), and other sources. Such partnerships can facilitate carbon market cooperation and accelerate private capital investment in climate change projects in Northeast Asia and beyond.

CONCLUSION

A linked carbon market in Northeast Asia could benefit covered enterprises, since it provides greater mitigation options to strategically manage their greenhouse gas emissions portfolio and meet their emissions reduction targets. For wider private sector stakeholders, carbon market cooperation can drive business growth and investment in low-carbon technologies.

During the design phase of market linkage, governments should consider creating a linkage framework that provides economic opportunities to companies across Northeast Asia. This framework should seek to prevent the benefits of linkage from becoming concentrated in specific companies, sectors, or subregions. Private sector stakeholders would also have to actively communicate their needs in order for policymakers to provide a clear direction on the linkage framework. The government could also expand the role of private sector engagement by convening firms during the early phases of linkage discussions through a joint platform, and also by regularly collecting opinions from these stakeholders.

For businesses, it is essential to identify the potential challenges linkage would have at the industry level to capitalize on the opportunities. Companies across China, Korea, and Japan could deepen cooperation by developing and implementing projects through mutual cooperation and presenting the challenges and lessons learned to the government. For private sector buy-in and support for linked systems to grow, linkage needs to demonstrate opportunities rather than additional burdens. Such opportunities are essential for ensuring the companies can pursue sustainable growth while contributing to climate change mitigation.