COMPLETION REPORT

Managing Climate Change Interdependence in Indonesia-Japan Trade Relations:
Economic Structure and Bilateral Institutions

Dr. Maharini Hapsari
Lecturer
Faculty of Social and Political Science
Gadjah Mada University
Indonesia

This study examines the economic settings and governance institutions of climate change interdependence between Indonesia and Japan as trading partners. It looks at bilateral institutions to control CO_2 embodied trade sectors that exist across policy domain of two national governments. To achieve the objectives, this study utilizes economic analysis, MRIO (multi-regional input-output) analysis and the institutional analysis. The result of MRIO analysis is used as the basis to identify further the development of institutions in controlling CO_2 emissions embodied in trade.

MRIO analysis shows that from 2000 to 2005, CO_2 emissions embodied in the exports from Indonesia to Japan are much larger than emissions embodied in the exports from Japan to Indonesia. Based on MRIO analysis, the ratio of the exported CO_2 emissions from Indonesia to Japan in Indonesia's total emissions increased from 2.0% to 2.5%. Conversely, CO_2 emissions embodied in the exports from Japan to Indonesia fluctuated between 0.5% and 1%. CO_2 emissions embodied in the exports from Indonesia to Japan are much larger than emissions embodied in the exports from Japan to Indonesia. This is possibly due to an increasing export volume from Indonesia to Japan. The structure of traded goods between Indonesia and Japan are relatively consistent, but the CO_2 emissions embodied in exports from Indonesia to Japan are more affected by its export volume. This is also probably because Indonesia exported mostly raw materials to Japan. On the other hand, Japan exports to Indonesia concentrate more on manufacturing sectors.

Despite the increasing intensity of trade-climate change linkage that has developed, the presence of policy integration to manage such linkage across two national policy domains remains to be witnessed. This is attributed to concern on both governments on the potential negative impacts of internalizing carbon pricing in the production of goods on international competitiveness. For Indonesia, this concern is even stronger, particularly because Indonesia has more limited technological capability to produce goods through implementing carbon efficient production method. Another reason is the fact that both governments are facing the needs to maintain popular support from the domestic business sector and customer in the process of including carbon pricing. Although in the long term the implementation of carbon tax may strengthen climate change mitigation effort, in the short term it will create economic disincentive for national producers.

Not only have such lack of policy linkage appeared on the production side, it have also developed when considering the two countries as consumer of traded goods. Such lack of policy linkage is attributed to unwillingness of the government and consumer to pay for environmental cost embedded in the products imported from other countries. Governments realize that they can benefit from international competitive advantage of other producing countries to meet their domestic demands on imported goods. The prospect of a bilateral trade policy that may integrate climate change mitigation, therefore, is shaped by how Indonesia and Japan as trading partners can create mutually accommodating incentives in developing bilateral policy linkages. It is also related to how both governments may protect the interest of domestic constituents, particularly from the potential short-term negative impacts of carbon pricing on domestic economy.

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Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

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