

## Interregional Water Footprint Analysis between Japan and China

Topic: Environmental IO models 7

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The Objective of this paper is to clarify the relation between economic activity and structure of water inducement among East Asian countries taking author's research one step further. Especially, having regard to the fact that trade with other country's region is essential to regional activity in recent years, the main purpose is to see how trading of each transnational region between Japan and China region affects the water inducement of each region. In this study after we made Transnational Interregional input-output table that Kanto region is divided into 11 regions and made the sectoral water usage data in accordance with such input output table we analyze the transnational interregional water inducement between Japan and China. The result of this study is as follows.

In China Huazhong have large water inducement mainly by demand of Huadong and Huanan. For that reason Huazhong assume the water demand of Huadong and Huanan. Additionally water demand of these regions causes comparatively large water inducement in other region like Huazhong and moreover certain amount of water inducement in Japanese region like Kanto and Kinki.

In Japan the water demand of Kanto caused large water inducement in other region like Tohoku Hokkaido Chubu and even Huadong. Additionally the water inducement in the U.S.A by the demand of Kanto is largest amount compared to other region. Secondly

Tohoku assume the water demand of other Japanese region. As for the relation of water inducement between Japan and China each region of Japan unilaterally depends on water resources of each region of China.

In Kanto region the water inducement of Tohoku by demand of Kanto is attributed to the demand of Tokyo Kanagawa Saitama Chiba. Furthermore the water inducement of Huadong in China by demand of Kanto is similarly attributed to the demand of Tokyo Kanagawa Saitama Chiba.

This study shows the transnational interregional water footprint relation between Japan and China. These results request that considering the whole water resources between Japan and China, the region that gives other regions the burden of water use should work on conservation and maintenance of water environment in the region that receives the burden of water use by more transnational interregional aspects.