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Going global to local: achieving agri-food sustainability from a spatially explicit input-output analysis perspective

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List of publications

Papers in this thesis

1. **Sun, Z.**, Tukker, A. and Behrens, P., 2018. Going global to local: connecting top-down accounting and local impacts, a methodological review of spatially-explicit input–output approaches. *Environmental Science & Technology*, 53(3), pp.1048-1062.
2. **Sun, Z.**, Scherer, L., Tukker, A. and Behrens, P., 2020. Linking global crop and livestock consumption to local production hotspots. *Global Food Security*, 25, p.100323.
3. **Sun, Z.**, Behrens, P., Tukker, A., Bruckner, M., and Scherer, L. Land use in key biodiversity areas disproportionately threatens global biodiversity. (submitted to Proceedings of the National Academy of Sciences)
4. **Sun, Z.**, Scherer, L., Tukker, A., Spawn-Lee, S., Bruckner, M., Gibbs, H., and Behrens, P. A double carbon dividend from dietary change in high-income nations. (under review in *Nature Food*)

Additional publications

5. Huang, J., Ridoutt, B.G., **Sun, Z.**, Lan, K., Thorp, K.R., Wang, X., Yin, X., Huang, J., Chen, F. and Scherer, L., 2020. Balancing food production within the planetary water boundary. *Journal of Cleaner Production*, 253, p.119900.

Curriculum vitae

Zhongxiao Sun was born on 19th September 1991, in Zaozhuang City, Shandong Province, China. He took his high school education from Zaozhuang No.2 Senior High school from 2007 to 2010. He majored in Mathematics and Applied Mathematics at China University of Geosciences (Wuhan) from 2010 to 2014 and graduated with his BSc degree in June 2014.

Between 2014 and 2017, He obtained his MSc degree in the major of Environmental Science at the School of Environment, Beijing Normal University. After graduation, he joined the Institute of Environmental Sciences (CML) with the support of the China Scholarship Council (CSC). His PhD project, under the supervision of Dr. Paul Behrens, Dr. Laura Scherer, and Prof. Arnold Tukker, aimed at the application of spatially explicit input-output analysis. He employed the approach to trace local impacts propagating globally via domestic and international demand. This thesis is the outcome of his PhD research.