

Academic Seminar

RURAL-URBAN MIGRATION AND AGRICULTURAL FIRES

Migration and air pollution are important phenomena that occurred during the development of many countries. While existing studies exploring the link between them have focused on how air pollution affects migration decisions, this paper finds that rural-urban migration increases agricultural fires, a notable source of air pollution in China. Combining the 2010 Population Census with satellite data on agricultural fires at the county level, we find that a one-percentage-point increase in the rural labor emigration rate in 2010 increases agricultural fires detected during 2011-2017 by 0.7%. This is because burning the crop straw residues after harvests is the most labor-saving and effective way to clear them off the field when agricultural labor is scarce. We find several pieces of evidence that support this mechanism. First, the effect is driven by rural emigrants, rather than rural residents or urban emigrants. Second, the effect is stronger in regions with more grain production or more agricultural machinery, where crop straw residues are intensively produced and need more labor to remove them. Third, the effect is weaker for rural emigrants who work nearby and can return in peak farming seasons. To address the potential endogeneity of rural emigration, we further construct a pull instrument for emigration from rural areas exploiting the exogenous shock on migration destination prefectures created by the change in trade policy between China and the U.S. We also discover that the land titling reform, which tends to facilitate land consolidation and large-scale farming, can largely mitigate the effect of rural-urban migration on agricultural straw burning. This paper offers a new perspective on the link between migration and pollution in developing countries. It also reveals the negative externalities that may arise from rural-urban migration.

 **8 December 2023 (Friday)**

 **4:00-5:30pm**

 **SEK210, 2/F, Simon & Eleanor Kwok Building**

 **English**



Welcome

GUEST SPEAKER:

Dr. Shiqi Guo
Assistant Professor
Shanghai Jiao Tong University



Shiqi Guo is an Assistant Professor at the Antai College of Economics and Management, Shanghai Jiao Tong University. He obtained his Ph.D. in Development Economics from the Graduate Institute of International and Development Studies, Geneva in 2021. Prior to this, he was a visiting fellow at Harvard University and the United Nations University World Institute for Development Economics Research. Dr. Guo's research interests lie in the fields of development economics and applied microeconomics. He has published several papers in prestigious international journals, including the Economic Journal, Journal of Development Economics, Games and Economic Behavior, American Journal of Agricultural Economics, and Journal of Comparative Economics.