Title: Agricultural processing spillovers

21st century agriculture is dominated by giant agro-industrial conglomerates with global value chains reaching from cities like Rotterdam, Saint Louis, Seattle, and Singapore to the most remote parts of the developing tropics, where export-oriented processing factories could dramatically reorganize rural economic life. Do local economies look different around agricultural processing factories? Do they generate spillovers beyond agriculture?

This paper examines spillovers from agricultural processing factories in Indonesia. I focus on processors of palm oil, the world's most consumed vegetable oil. Indonesia's rapid increase in palm oil production over the last two decades is the world's largest modern agricultural expansion, driven by new factories opening up markets across the countryside. Despite their well-documented environmental impacts, little is known about the role of these factories in reshaping Indonesia's economic geography.

Combining a new dataset locating all of Indonesia's palm oil processing factories with detailed administrative and geospatial data for over 80,000 villages, my empirical strategy compares villages near factories to those slightly further away, while carefully accounting for the local topographic, hydrological, and other geographic factors that make one village preferable to another close by.

My study finds strong patterns of economic agglomeration and structural change around factories. Living in a village near a factory corresponds to higher household incomes, increased specialization in agriculture, and a greater likelihood of non-agricultural employment. Villages near factories also have more people, large firms, and economic and social organizations. Linked industries, improved infrastructure and other public goods, and lower trade costs help explain these patterns.

The main contribution of this paper is new evidence of spillovers from agricultural processing in a large developing country. In addition to feeding into salient policy debates on globalization, global food systems, and the impacts of rising global palm oil consumption, I contribute to two development literatures: that on agriculture and development, and that at nexus of trade, spatial development, and economic geography. The most relevant conference themes are “reshaping economic geography”, “agriculture for development”, “infrastructure and industrialization”, and “mobilizing the private sector.”