Evidence of Intitutional Bias against Flatland Forests in Suburban Tokyo: The Analysis of Long-term Plot-level Panel Data

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This study analyzes the factors affecting the conversion of agricultural land (i.e. forest land or crop field) into non-agricultural land (i.e. commercial or residential land) in suburban Tokyo. We take the case of Santomi area, which was created as an agricultural settlement about 300 years ago on flatland located about 30km away from the center of Tokyo. Since the flatland was infertile, settled farmers planted trees and converted barren land into fertile crop field using leaf litter to produce compost. Thus, a sustainable agriculture system was established in the Santomi area in the long run. The planted trees became flatland forest, which was an indispensable part of this agricultural system. In addition, the combination of forest and crop field makes a unique landscape that attracts visitors.

However, during the last 60 years, many parts of the Santomi area have been converted into non-agricultural land. This study constructs a plot-level panel dataset of 381 plots using aerial photos taken 7 points of time from 1956 to 2016. Then, fixed effect regressions reveal that the differential taxation between forest and crop field, which was intended to protect agricultural land from conversion, promoted the conversion of flatland forest into commercial land. As a result, the sustainable agricultural system that depends on compost from forest is no more practiced much and the value of the unique landscape has been reduced.

There is demand for the conserving the unique agricultural landscape of Santomi area and discussions are going on. But so far there is no agreement as to how to protect the flatland forest.

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