

## **Remote sensing and measuring the impact of Kenyan resettlement schemes**

**Faculty Member:** [Luke Sanford](#)

**Proposal Description:** Land politics are at the heart of political economy in many developing countries. Long having been an important part of electoral politics and development, land tenure and use is at the heart of a range of issues from ethnic politics to economic development, to environmental protection and carbon sequestration. In this project we use just-released data on Kenyan resettlement schemes where 530 settlements represent 300,000 families and 3.1 million acres (Boone 2021). In this project we will analyze the drivers of when and where resettlement schemes appear and what effects these schemes have on economic and environmental outcomes. We will use census micro data and historical satellite imagery to train a convolutional neural network to measure economic and demographic outcomes, and then use the trained algorithm to estimate the effects of settlement schemes on those outcomes in addition to satellite-derived measures of environmental health. We will also examine the relationship between ethnic electoral politics, previous land use, and the timing and placement of the schemes.

**Requisite Skills and Qualifications:** Applicants should have strong experience working with data in R, the ability to commit 10 hours per week to the project.

Previous work with spatial data, machine learning methods, or satellite imagery would be helpful, but is not required.

**Award:** Katy Sun

**Tobin Application Link:** [Tobin Application](#)

**Project Type:** Tobin RA

**Project Year:** 2022

**Term:** Spring 2022

**Source URL:** <https://economics.yale.edu/undergraduate/tobin-ra/spring-2022/remote-sensing-and-measuring-impact-kenyan-resettlement-schemes>