THE SDSU DEPARTMENT OF ECONOMICS PRESENTS:

A Natural Resource Curse: The Unintended Effects of Gold Mining on Malaria

A research presentation by **Jeffrey Pagel**

Research Officer at the London School of Economics Grantham Research Institute

Abstract

This paper aims at analyzing whether there is an ecological response from extractive resource activities that exert an influence on the emergence and proliferation of malaria. More specifically, I analyze the effects that gold mining activities have on the incidence of malaria through a nation-wide reform that improved the investment climate in the Philippines' mining sector. In January 2004, the government of the Philippines launched the Minerals Action Plan (MAP) with the goal of revitalizing the mining sector, which significantly reduced the average lag between application and grant of a mining permit. Using the MAP reform, I exploit two sources of variation in the timing of the reform as well as spatial variation in the distribution of mineral endowments through a difference-in-differences (DID) approach that compares provinces with and without gold deposits before and after the reform. I find evidence that is consistent with an ecological response, where the MAP reform had a statistically significant effect on the incidence of malaria. After the MAP reform, provinces with deposits of gold had 32 percent more malaria cases relative to provinces without gold deposits. In order to validate the research design, I perform several falsification tests as well as investigate other potential mechanisms to confirm that the main mechanism is through gold mining's creation of slow-moving bodies of stagnant water, which provide an ideal breeding site for Anopheles mosquitos to propagate and reproduce.

In-person event - All are welcome to attend

Friday, April 29, 2022

11:00 AM-12:15 PM

Room: AL-102