
The Economic Impact of Schistosomiasis

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Résumé

Schistosomiasis is a chronic and debilitating neglected tropical disease that is endemic in many developing countries. The disease is contracted by direct contact with waters infested by the pathogen, whose life cycle requires an intermediate host (a freshwater snail) whose habitats are broadly expanded by water resources management projects. We study the impact of schistosomiasis on economic development by means of its effect on agricultural production. We focus on Burkina Faso, a sub-Saharan African country where the disease is endemic and agriculture is mostly of the subsistence variety, in order to establish a baseline for the worst possible burden. We estimate this impact to be large, negative and consistent with the disease being a poverty-reinforcing productivity shock, and establish causality of the effect by instrumenting the disease intensity with the density of the snail hosts. We introduce two methodological innovations: econometrics based on high-resolution prevalence maps and the use of machine learning techniques to identify the disease burden. We present evidence of the feedback between disease diffusion and development: the creation of large dams, while boosting agricultural production, magnifies the adverse effects of the disease.

Mots-Clés: Schistosomiasis, Economic Development, Agricultural Productivity, Water Resources Development, Sub, Saharan Africa

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