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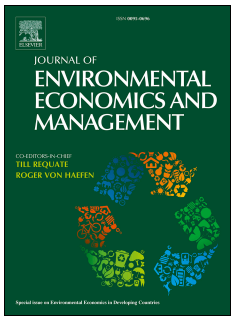

(Not so) gently down the stream: River pollution and health in Indonesia

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(Not So) Gently Down The Stream: River Pollution and Health in Indonesia *

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Abstract

Waterborne diseases, often arising from freshwater pollution, are a leading cause of mortality in developing countries. However, data limitations inhibit our understanding of the extent of damage arising from freshwater pollution. We employ a novel hydrological approach combined with village census data to study the effect of upstream polluting behavior on downstream health in Indonesia. We find that upstream use of rivers for bathing and associated sanitary practices can explain as many as 7.5% of all diarrhea-related deaths annually. We also find suggestive evidence for differential avoidance behavior in response to different pollutants. Our approach relies on publicly available satellite data, open source hydrological models, and coarse village census data allowing us to estimate health externalities from river pollution in particularly vulnerable and data poor environments.

JEL Codes: Q56, D62, H23, Q53, I18
Keywords: Water Pollution, Diarrhea, Indonesia, River Networks

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