



Environmental Institutions Seminar Series

Presents

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Forest Malaria: A microeconomic study of forest protection and child malaria in Flores, Indonesia

Thursday, January 22, 2004

12:30 – 2:00 pm

LSRC Room A158

Research Drive, Duke University

Abstract

In remote areas of developing countries, people's lives are closely intertwined with the condition of the natural environment. While there is growing body of research on the social and economic impacts of natural resource use, little is known about how deforestation impacts rural economies and livelihoods through the spread of infectious diseases such as malaria. We draw on utility maximization and household production literature to specify econometric models to evaluate the links between ecosystem change and the incidence of malaria in young children. Data from a survey of households residing near a protected area in Flores, Indonesia is used to conduct non-parametric analysis and multivariate logit regressions that test the correlations between the forest protection and child malaria, controlling for individual, household and community characteristics. Our results indicate statistically significant correlations between village level forest protection and the incidence of child malaria. We find that the extent of primary forest is negatively associated with child malaria, while the extent of secondary forest cover is positively correlated with child malaria. Other significant factors related to malaria in children include gender, mother's age and recent illness history, household wealth and house quality, village size, and level of public health infrastructure. The significance of primary and secondary forest cover on malaria rates in children suggest that forest protection may offer health benefits to nearby communities.

Biography

Dr. Subhrendu K. Pattanayak builds microeconomic models to analyze the policy causes and consequences of interactions between human behavior and environmental services. Examples of his research include the valuation of environmental health risks; measurement of demand for water and sanitation services; household production with environmental inputs in tropical areas; and adoption of agroforestry technology. He has designed and managed multi-site, multi-topic household surveys in urban and rural areas of India, Indonesia, Mexico, Nepal, and Sri Lanka. He is a member of the American Economic Association and the Association of Environmental and Resource Economists. Dr. Pattanayak is a Visiting Associate Professor at North Carolina State University and Duke University where he teaches forest economics.



Light lunch will be served.

**Please RSVP by January 20 to Duke Center for Environmental Solutions: leithc@duke.edu , or 613-8131
For directions to seminar locations, visit our website: <http://www.env.duke.edu/solutions/>**