

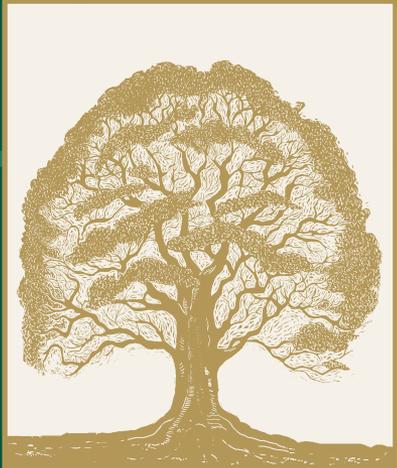
ISSN 1355-770X

Environment and Development Economics

Environment and Development Economics

Volume 14 Part 5 October 2009

Volume 14 Part 5 October 2009



CAMBRIDGE

ENVIRONMENT AND DEVELOPMENT ECONOMICS

published in association with the Beijer Institute of Ecological Economics,
Royal Swedish Academy of Sciences

AIMS AND SCOPE *Environment and Development Economics* aims to publish papers on the environmental problems associated with the process of economic development. It encourages submission of two categories of paper. The first comprises scientific papers. The second comprises environmental policy discussion papers. The first is carried in a section on Theory and Applications. The second is carried in a regular section, Policy Options, and an occasional more focussed Policy Forum.

The journal publishes on a wide range of topics including:

- * the environmental impact of economy-wide policies
- * optimal environmental regulation and incentives in a development context
- * the valuation of environmental resources in developing countries and incentives in environmental policy
- * the environmental effects of institutional change
- * modelling interdependent economic and environmental processes

SUBSCRIPTIONS *Environment and Development Economics* (ISSN 1355-770X) is published bimonthly in February, April, June, August, October and December. Six parts form a volume. The subscription price (excluding VAT), which includes print and electronic access, and postage, of Volume 14 in 2009 is £230 (\$395 in the USA, Canada and Mexico), for institutions and £50 (\$80 in the USA, Canada and Mexico) for individuals ordering direct from the publisher and certifying that the journal is for their personal use. The electronic-only price available to institutional subscribers is £190 (US\$330 in the USA, Canada and Mexico). Single parts are £40 (US\$70 in the USA, Canada and Mexico). Prices include delivery by air where appropriate. Orders which must be accompanied by payment, may be sent to a bookseller, subscription agent or direct to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge, CB2 8RU, UK; or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, New York 10994-2133. EU subscribers who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Japanese prices for institutions are available from Kinokuniya Company Ltd, PO Box 55, Chitose, Tokyo 156, Japan. Special arrangements exist for subscribers in most low-income countries. Apply to: Journals Marketing Department, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge, CB2 8RU, UK.

Periodicals postage is paid at New York, NY, and at additional mailing offices. POSTMASTER: send address changes in the USA, Canada and Mexico to: *Environment and Development Economics*, Cambridge University Press, 100 Brook Hill Drive, West Nyack, New York 10994-2133.

Copying This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of U.S. Copyright law) subject to payment to C.C.C. of the per-copy fee of \$12.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 1355-770X/2009.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, PA 19104, USA, is authorized to supply single copies of separate articles for private use only.

Organizations authorised by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or from the American Branch of Cambridge University Press.

This journal is included in the Cambridge Journals Online service which can be found at <http://journals.cambridge.org>. For further information on other Press titles access <http://www.cambridge.org>

ISSN 1355-770X © Cambridge University Press

CONTENTS

THEORY AND APPLICATIONS

- ARIASTER B. CHIMELI and JOHN B. BRADEN A capital scarcity theory of the environmental Kuznets curve 541
- EFTICHIOS S. SARTZETAKIS and PANAGIOTIS D. TSIGARIS Uncertainty and the double dividend hypothesis 565
- WISDOM AKPALU, EDWIN MUCHAPONDWA, and PRECIOUS ZIKHALI Can the restrictive harvest period policy conserve mopane worms in southern Africa? A bioeconomic modelling approach 587
- RACHEL A. BOUVIER Sulfur dioxide emissions and per capita income: a disaggregation of the effects of long-run and short-run income growth 601
- MAYA PAPINEAU, KRISTIN AUNAN, and TERJE BERNTSEN Distributional determinants of household air pollution in China 621
- ANKE REICHHUBER, EVA CAMACHO, and TILL REQUATE A framed field experiment on collective enforcement mechanisms with Ethiopian farmers 641

ENVIRONMENT AND DEVELOPMENT ECONOMICS

published in association with the Beijer Institute, Royal Swedish Academy of Sciences

EDITOR

Anastasios Xepapadeas, *Athens University of Economics and Business*

ASSOCIATE EDITORS

Erwin Bulte, *Wageningen University*

Margaret Chitiga, *University of Pretoria*

Phoebe Koundouri, *Athens University of Economics and Business*

Bernardo Mueller, *University of Brasilia*

Gerald Shively, *Purdue University*

E. Somanathan, *Indian Statistical Institute, Delhi*

Jintao Xu, *Peking University*

ASSISTANT EDITOR

Joan Stefan, *Athens University of Economics and Business*

POLICY BOARD

Kenneth Arrow, *Stanford University*, Edward B. Barbier, *University of Wyoming*, Kanchan Chopra, *Institute of Economic Growth, Delhi*, Partha Dasgupta, *Cambridge University*, Carl Folke, *Beijer Institute*, Gérard Gaudet, *Université de Montréal*, Rashid Hassan, *University of Pretoria*, Michael Hoel, *University of Oslo*, Karl-Göran Mäler, *Beijer Institute*, Charles Perrings, *Arizona State University*, Rüdiger Pethig, *University of Siegen*, Mordechai Shechter, *University of Haifa*, V. Kerry Smith, *Arizona State University*, Aart de Zeeuw, *Tilburg University and Beijer Institute*.

EDITORIAL BOARD

Francisco Alpízar, *Tropical Agricultural and Higher Education Center, Costa Rica*, Sangeeta Bansal, *Jawaharlal Nehru University, New Delhi*, Lucas Bretschger, *Center of Economic Research at ETH Zurich*, Robert Cairns, *McGill University*, Juan-Camilo Cárdenas, *Universidad de los Andes, Bogotá*, Maria Cunha e Sá, *Universidade Nova de Lisboa*, Hossein Farzin, *University of California, Davis*, Quentin Grafton, *Australian National University*, Michael Harris, *University of Sydney*, Jikun Huang, *Chinese Academy of Sciences*, Matti Liski, *Helsinki School of Economics*, Jane W. Kabubo-Mariara, *University of Nairobi*, Ramos Mabugu, *Financial and Fiscal Commission, South Africa*, Katrin Millock, *Université Paris 1 Panthéon-Sorbonne*, Juan-Pablo Montero, *Pontificia Universidad Católica de Chile*, Keijiro Otsuka, *Foundation for Advanced Studies on International Development, Tokyo*, Unai Pascual, *University of Cambridge*, Eustáquio Reis, *Institute of Applied Economic Research (IPEA), Rio de Janeiro*, Eftichis Sartzetakis, *University of Macedonia*, Bob Scholes, *Council for Scientific and Industrial Research, Pretoria*, Jim Shortle, *Pennsylvania State University*, Priya Shyamsundar, *South Asian Network for Development and Environmental Economics, Bangkok*, Jeff Vincent, *Duke University*, Hans-Peter Weikard, *Wageningen University*, David Zilberman, *University of California, Berkeley*.