

Environment and Development Economics

25th
Anniversary

Volume 25 Part 6 December 2020



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 25 in 2020 is £441 (\$713 in the USA, Canada and Mexico), for institutions and £73 (\$118 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 £344 (US\$573 in the USA, Canada and Mexico). Single parts are £78 (US\$129 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, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge, CB2 8BS, UK; or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA. 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, University Printing House, Shaftesbury Road, Cambridge, CB2 8BS, UK.

Periodicals postage is paid at New York, NY, and at additional mailing offices. POST-MASTER: send address changes in the USA, Canada and Mexico to: *Environment and Development Economics*, Cambridge University Press, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA.

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/2019.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, PA 19104, USA, is authorised 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 Core service which can be found at <http://cambridge.org/core>.

ISSN 1355-770X © Cambridge University Press

CONTENTS

SPECIAL ISSUE ON THE ENVIRONMENT, RESOURCES AND POLLUTION - NEW CHALLENGES FOR ECONOMIC DEVELOPMENT

GUEST EDITORS: INMA MARTÍNEZ-ZARZOSO,
CHRISTIAN OBERST AND CAMÉLIA TURCU

INMA MARTÍNEZ-ZARZOSO, CHRISTIAN OBERST AND CAMÉLIA TURCU Introduction: special issue on the environment, resources and pollution - new challenges for economic development	529
INMA MARTÍNEZ-ZARZOSO AND JENNIFER PHILLIPS Freedom of the press, inequality, and environmental policy	537
YUNZHI ZHANG Free trade and the environment - evidence from Chinese cities	561
NICOLAS CLOOTENS AND DJAMEL KIRAT Threshold regressions for the resource curse	583
ZHENG HOU, CATARINA ROSETA-PALMA AND JOAQUIM J.S. RAMALHO Directed technological change, energy and more: a modern story	611
BOCAR SAMBA BA, PASCALE COMBES-MOTEL AND SONIA SCHWARTZ Challenging pollution and the balance problem from rare earth extraction: how recycling and environmental taxation matter	634
LESLY CASSIN The effects of migration and pollution on cognitive skills in Caribbean economies: a theoretical analysis	657
List of Reviewers	687

ENVIRONMENT AND DEVELOPMENT ECONOMICS

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

CO-EDITORS

Carlos Chávez, *Universidad de Talca*
Susana Ferreira, *University of Georgia*
E. Somanathan, *Indian Statistical Institute*
Jeffrey R. Vincent, *Duke University*

ASSOCIATE EDITORS

H. Jo Albers, *University of Wyoming*
Carmen Arguedas, *Autonomous University of Madrid*
Juliano Assunção, *Pontifícia Universidade Católica do Rio de Janeiro*
Mintewab Bezabih, *Ethiopian Development Research Institute*
Allen Blackman, *Inter-American Development Bank*
Jing Cao, *Tsinghua University*
Olivier Chanel, *Aix-Marseille Université*
Xiaoguang Chen, *Southwestern University of Finance and Economics*
Håkan Eggert, *University of Gothenburg*
Kyle Emerick, *Tufts University*
Mads Greaker, *Oslo Metropolitan University*
Sumeet Gulati, *The University of British Columbia*

Guojun He, *Hong Kong University of Science and Technology*
Pamela Jagger, *University of Michigan*
François Libois, *Paris School of Economics and INRA*
Alejandro López-Feldman, *Centro de Investigación y Docencia Económicas*
Hélène Ollivier, *Paris School of Economics*
Anant Sudarshan, *University of Chicago*
María Alejandra Vélez, *Universidad de los Andes*

ASSISTANT EDITOR

Dimi Xepapadeas

EDITORIAL BOARD

Edward B. Barbier, *Colorado State University*, Margaret Chitiga, *University of Pretoria*, Partha Dasgupta, *Cambridge University*, Aart de Zeeuw, *Tilburg University and Beijer Institute*, Salvatore Di Falco, *University of Geneva*, Carl Folke, *Beijer Institute*, George Halkos, *University of Thessaly*, Alemu Mekonnen, *Addis Ababa University*, Katrin Millock, *CNRS, Paris School of Economics*, Subhrendu Pattanayak, *Duke University*, Charles Perrings, *Arizona State University*, Karen Pittelet, *Ifo Institute for Economic Research and University of Munich*, Ping Qin, *Renmin University of China*, Martin Quaas, *Universität Leipzig*, Juan Robalino, *CATIE and Universidad de Costa Rica*, Elizabeth Robinson, *University of Reading*, Elisabetta Strazzera, *University of Cagliari*, Anastasios Xepapadeas, *Athens University of Economics and Business and University of Bologna*, Mahmud Yesuf, *American University*.