SPRINGER LINK

Log in



Q Search



Environment, Development and Sustainability



Environment, Development and Sustainability

Publishing model: Hybrid



← Back to overview

Editors

Editors-in-Chief:

LUC HENS

VITO - Flemish Institute for Technological Research, Boeretang, 2400 Mol, Belgium

JINGZHENG REN

Hong Kong Polytechnic University, Department of Industrial and Systems Engineering, Hong Kong SAR, China

Managing Editor

Shengfang Lu

Hong Kong Polytechnic University, Department of Industrial and Systems Engineering, Hong Kong SAR, China

Associate Editors:

Vernika Agarwal, Apeejay School of Management, Dwarka, New Delhi, India **Al-Mahfoodh Ali Najah Ahmed,** Universiti Tenaga Nasional - UNITEN, Malaysia

Luigi Aldieri, University of Salerno, Salerno, Italy

Imtiaz Ali, PhD, King Abdulaziz University, Saudi Arabia

Minhaj Ali, Department of Economics, Islamia University of Bahawalpur, Pakistan

Abdullah Al-Mamun, PhD, Sultan Qaboos University, Oman

Mohammad Al-Saidi, Dr. rer. pol., Qatar University, Doha, Qatar

Andrea Appolloni, University of Rome Tor Vergata, Rome, Italy

Usama Awan, Inland Norway University of Applied Sciences, Kongsvinger, Norway

Mukesh K. Awasthi, Northwest Agriculture and Forestry University, Yangling,

Shaanxi, China

Faissal Aziz, PhD, Faculty of Sciences Semlalia of Marrakech, Cadi Ayyad University, Morocco

Daniel Balsalobre-Lorente, University of Castilla-La Mancha, Spain

Moses Basitere, Dr(Chem Eng), University of Cape Town, South Africa

Aryasomayajula Bharadwaj, Hanyang University, Seoul, South Korea

Bishal Bharadwaj, Curtin Institute for Energy Transition, Curtin University, Bentley

Western Australia, Australia

Debraj Bhattacharyya, Ph.D, Indian Institute of Technology Hyderabad, India

Alka Bharat, Maulana Azad National Institute of Technology, Bhopal, India

Flavio Boccia, Parthenope University of Naples, Italy

Jelle Boeve-de Pauw, Utrecht University, The Netherlands

Faezeh Borhani, University of Tehran, Tehran, Iran

Bing Baltazar C. Brillo, University of the Philippines Los Baños, Philippines

Fausto Cavallaro, University of Molise, Campobasso, Italy

Jayajit Chakraborty, University of Texas at El Paso, USA

Vimal Chandra Pandey, Babasaheb Bhimrao Ambedkar University, Lucknow, India Katarzyna Cheba, West Pomeranian University of Technology, Szczecin, Poland Zhe Cheng, Xi'an University of Architecture and Technology, Xi'an, China Yuan Chi, PhD, First Institute of Oceanography, Ministry of Natural Resources, China

Helen Chiappini, University of Chieti-Pescara, Pescara, Italy
Idiano D'Adamo, Sapienza University of Rome, Italy
Gabriella D'Amore, Parthenope University of Naples, Italy
Gideon Danso-Abbeam, University for Development Studies, Tamale, Ghana
Mehmet Akif Destek, PhD, Gaziantep University, Gaziantep, Turkey
Dat Doan, Auckland University of Technology, Auckland, New Zealand
Assunta di Vaio, Parthenope University of Naples, Italy
Wasif Farooq, PhD, King Fahd University of Petroleum and Minerals (KFUPM),

Qian Feng, Dr.-Ing, Hohai University, China

Víctor Fernández-García, PhD, University of Lausanne, Switzerland

Samir Gadow, PhD, National Research Centre, Egypt

Mehdi Ghorbani, University of Tehran, Tehran, Iran

Prabir Ghosh, PhD, National Institute of Technology Raipur, India, India

João Gomes, PhD, University of Coimbra, Portugal

Bright Akwasi Gyamfi, PhD, Sir Padampat Singhania University, Udaipur, India

Dwi Hantoko, Dr. Eng, King Fahd University of Petroleum and Minerals, Saudi

Arabia

Saudi Arabia

Nazmul Hasan, University of Bath, United Kingdom

Chao He, Henan Agricultural University, Zhengzhou, China

Le Thi Thu Hien, Institute of Geography, Hanoi City, Vietnam

Ihsanullah Ihsanullah, PhD, University of Sharjah, United Arab Emirates

Amir Ikhlaq, PhD, Institute of Environmental Engineering and Research UET, Lahore, Pakistan, Pakistan

Muhammad Fauzul Imron, PhD candidate, Universitas Airlangga, Indonesia

Carlo Ingrao, Dr. hab. –Eng., University of Bari Aldo Moro, Bari, Italy

Muhammad Ishtiaq Ishaq, Quaid-i-Azam University Islamabad, Pakistan

Cem Işık, Faculty of Tourism Anadolu University Eskişehir, Turkey

 ${\bf Mohammad\ Mahmudul\ Islam}, {\it Sylhet\ Agricultural\ University}, {\it Sylhet\ Bangladesh}$

Hyunwoo Kang, Oregon State University, Oregon State University, United States of America

Hamed Kioumarsi, Agricultural Research & Education Organization (AREEO), Iran

Oleksandr V. Kubatko, Sumy State University, Sumy, Ukraine

Paul Kwakwa, PhD, MPhil, BA in Economics, University of Energy and Natural

Resources, Sunyani, Ghana

Tran Dinh Lan, Institute of Marine Environment and Resources (IMER), Hai Phong City, Vietnam

Beatriz Larraz, Universidad de Castilla-La Mancha, Toledo, Spain

Hanwei Liang, School of Geographical Sciences, Nanjing University of Information

Science & Technology, Nanjing, China

Xiao Lin, University of York, Management School, York, UK

Karin Lindsjö, Lund University, Lund, Sweden

Dezhao Liu, Zhejiang University, China

Zhimin Liu, East China Normal University, Shanghai, China

Jiang Lu, Beijing Normal University, China

Libang Ma, Northwest Normal University, Lanzhou, China

Yingqun Ma, Dr. Sci. (Eng.), Xi'an Jiaotong University, China

Piyush Malaviya, PhD, University of Jammu, India

Javed Mallick, King Khalid University, Saudi Arabia

Yi Man, South China University of Technology, Guangzhou, China

Agata Matarazzo, University of Catania, Italy

K. Mathiyazhagan, Thiagarajar School of Management (Autonomous), Madurai, Tamilnadu, India

Karen McNamara, University of Queensland, Australia

Fanran Meng, PhD, University of Sheffield, United Kingdom

Sylvanus Mensah, Dr.-Ing, *University of Freiburg, Germany*

Jia Meng, PhD, Harbin Institute of Technology, China

David Mhlanga, PhD Economics, Mcom Economics, BSC Hon

Economics, University of Johannesburg, South Africa

William Michelon, Dr. Eng., Universidade do Contestado, Brazil

Sandra Naomi Morioka, UFPB, Federal University of Paraíba, João Pessoa, Brazil

Tii Nchofoung, University of Dschang, Cameroon

Charles Nhemachena, Global Center on Adaptation, South Africa

Ugochukwu Patrick Okoye, PhD, *Universidad Nacional Autónoma de México*, *Mexico*

Miguel Oliveira, University of Aveiro, Portugal

Abiodun Olusola Omotayo, North West University, Mafikeng, North West Province, South Africa

Anis Omri, College of Business and Economics, Qassim University, Saudi Arabia

Manish Pandey, National Institute of Technology Warangal, India

Jesus C. Pena-Vinces, University of Seville, Spain

Jeremy Pittman, PhD, University of Waterloo, Canada

Naci Polat, Pamukkale University, Denizli, Turkey

Sanjeev Kumar Prajapati, PhD, Indian Institute of Technology Roorkee, India

Trakarn Prapaspongsa, PhD, Mahidol University, Thailand

Magdalena Radulescu, Lucian Blaga University of Sibiu, Sibiu, Romania

Prabhat Kumar Rai, Mizoram University, Aizawl, India

Asif Raihan, National University of Malaysia (UKM), Malaysia

Nelson Rangel-Buitrago, University of Atlántico, Colombia

Prangya Ranjan Rout, PhD, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, India

Juan F. Saldarriaga, Universidad de los Andes, Colombia

Christian Sanders, Southern Cross University, Australia

Christian Schader, Research Institute of Organic Agriculture (FiBL), Switzerland

Umer Shahzad, Anhui University of Finance and Economics, Anhui Province,

China; University of Galway, Ireland

Arshian Sharif, Sunway University Business School, Sunway University, Malaysia

Yu-Sheng Shen, University of Chinese Academy of Sciences, Xiamen, China

Farooq Sher, Nottingham Trent University, Nottingham, UK

Jay N. Shu, Ph.D., India

Chenyang Shuai, Chongqing University, Chongqing, China

Saurabh Shukla, Shri Ramswaroop Memorial University, Lucknow, India

Prafull Singh, Central University of South Bihar, Gaya, India

Avik Sinha, Management Development Institute, Gurgaon, India

Ali Soltani, University of South Australia, Adelaide, Australia

Junnian Song, College of New Energy and Environment, Jilin University,

Changchun, China

Prashant Srivastava, Banaras Hindu University, Varanasi, India

Lu Sun, Center for Social and Environmental Systems Research, National Institute for Environmental Studies, Tsukuba, Japan

S. Suriyanarayanan, Vinayaka Missions University, Tamil Nadu, India

Sara Toniolo, University of Verona, Verona, Italy

Hai Nguyen Tran, Duy Tan University, Da Nang, Vietnam

Recep Ulucak, Erciyes University, Kayseri, Turkey

Ojonugwa Usman, PhD, Istanbul Ticaret University, Istanbul, Turkey

Donatella Valente, PhD, University of Salento, Italy

Chu Wei, Renmin University of China, Beijing, China

Huijun Wu, Anhui University of Science and Technology, Huainan, China

Yudi Wu, Florida Polytechnic University, Lakeland, USA

Zhenci Xu, The University of Hong Kong, China

Chao Ye, School of Geographic Sciences, East China Normal University, Shanghai, China

Haofei Yu, University of Central Florida, Orlando, USA

Lu Yu, Zhejiang University, Hangzhou, China

Muhammad Wasif Zafar, PhD, Riphah International University, Lahore, Pakistan

Demetrio Antonio Zema, University of Reggio Calabria, Italy

Christos Zerefos, Research Center for Atmospheric Physics and Climatology of the Academy of Athens, Greece

Qian Zhang, PhD, Queen's University, Canada

Zhenming Zhang, Dr. Sci. (Eng.), Guizhou University, China

Zhihua Zhang, Shandonq University, Jinan, China

Chaoqi Zhu, College of Environmental Science and Engineering, Ocean University of China, Qinqdao City, China

Editorial Board:

Claudinei Andreoli, RuralProsper Consulting, Brasilia, DF. Brazil

J.R. Atlhopheng, University of Botswana, Gaborone, Botswana

Juan Cabello, Universidad of Cienfuegos, Cuba

D.B. Dalal-Clayton, International Institute for Environment and Development, London, UK

John W. Day, Louisiana State Univerity, Baton Rouge, USA

Wouter T. de Groot, Center of Environmental Science, Leiden University, The Netherlands

Robert Hanlon, Thompson Rivers University, Kamloops, Canada

Marianne Henningsson, Linnaeus University, Sweden

Hans R. Herren, Millennium Institute, Arlington, VA, USA

Kamrul Islam, Research Institute of Science for Safety and Sustainability, National Institute of Advanced Industrial Science and Technology (AIST), Japan

Jennifer Jacquet, New York University, USA

Paul Johnston, University of Exeter, UK

Julius Kipkemboi, Egerton University, Kenya

Rattan Lal, Ohio State University, Columbus, USA

Walter Leal Filho, Hamburg University of Applied Sciences, Germany

Polyxeni Nicolopoulou-Stamati, Medical School of National and Kapodistrian University of Athens, Greece

Richard B. Norgaard, Energy and Resources Group, University of California, Berkeley, USA

Manuel Regueiro y González-Barros, Mineral Resources Div., Instituto Geológico y Minero de España, Madrid, Spain

Jingzheng Ren, Department of Technology and Innovation, University of Southern Denmark, Odense, Denmark

Raman Saravanane, Pondicherry Engineering College, India

Richard R. Shaker, Ryerson University, Toronto, Ontario, Canada

Sang-Bing Tsai, University of Electronic Science and Technology of China,

Zhongshan Institute, Guangdong, and Civil Aviation University of China, Tianjin, China **Sergio Ulgiati**, Dept. of Sciences for the Environment, Parthenope University of Naples, Italy

Wen Dazhong, Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang, PR of China

Book Review Editor:

Dr. Okechukwu Ukaga, Northeast Minnesota Sustainable Development Partnership, University of Minnesota, 114 Chester Park, 31 W. College St., Duluth, MN 55812, USA *e-mail*: ukaga001@umn.edu

Founding Editors:

Luc Hens

Bhaskar Nath

David Pimentel

For authors

Submission guidelines	\rightarrow
Language editing services	\rightarrow
Ethics and disclosures	\rightarrow
How to publish with us	\Rightarrow

Open Access fees and funding	\rightarrow
Contact the journal	>
<u>Collections and calls for papers</u>	\rightarrow



Language quality checker

Get your manuscript edited for free →

Use our pre-submission checklist →

Avoid common mistakes on your manuscript.



This journal's calls for papers →

Collections this journal is participating in.



Sign up for alerts →

Get notified when new articles are published.



Explore

<u>Articles</u>	→
<u>Volumes and issues</u>	\rightarrow
Collections	\rightarrow