New Frontiers in Regional Science: Asian Perspectives

Volume 25

New Frontiers in Regional Science: Asian Perspectives

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Euijune Kim • Brian H. S. Kim
Editors

Quantitative Regional Economic and Environmental Analysis for Sustainability in Korea

Springer

Editors
Euijune Kim
Department of Agricultural Economics and Rural Development and Research Institute of Agricultural and Life Science
Seoul National University
Seoul, Korea

Brian H. S. Kim
Department of Agricultural Economics and Rural Development, Interdisciplinary Program in Agricultural and Forest Meteology, and Research Institute for Agriculture and Life Sciences
Seoul National University
Seoul, Korea

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Preface

Sustainable development, with its dual emphasis on the most recent concerns—development and environment—has different implications for several sections of society, professions, and practitioners in different fields of human endeavor and survival. It requires an extensive application and interdisciplinary method that should form the ingredients of comprehensive approaches to sustainable development. Rigorous theories have been advanced, relatively recently, in response to a growing trend and challenges posed in public policy in economic and environmental development. Economic science recognized nonlinearities in economic growth and environmental conservation and the critical role of environment and ecology in the managing of economic systems. It is therefore necessary to examine more real-life solutions to identified and potential problems that affect the welfare of the human society. However, sustainable development draws much of its significance, influence, and innovation from its very ambiguity. The concrete challenges of sustainable development are at least as heterogeneous and complex as the diversity of human societies and natural ecosystems. A dynamic and evolving idea that can be adapted to fit very different conditions and contexts across space and time allows redefining and reinterpreting the salient features of sustainable development.

New findings of extensive empirical research have posed several new challenges to our basic understanding of how regions develop, change, and grow. This book focuses on lately developed pioneering analytical tools for sustainable development with the application of regional economic and environmental issues in Korea. With a range of case studies, the authors here embraced a series of theoretical models and empirical methods including spatial CCE model, multiregional input–output and econometric analysis, logit model, GIS, contingent valuation method, sample selection model, machine learning technique, stochastic frontier analysis, Markov chain model, and panel analysis. These models and methods are tailored to spatial development and policy issues such as agglomeration, clustering and industrial innovation, human capital and labor market, education and R&D investments,

regional economic resilience for unexpected disaster, quarantine system and disease, and environmental degradation. These studies contribute to advocate alternative interpretations and policy guidelines and allow to observe changing patterns and binding constraints of sustainable development transition in Korea.

Seoul, Korea

Euijune Kim
Brian H. S. Kim

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Contributors

Taelim Choi Incheon Development Institute, Incheon, Korea

Ayoung Kim Department of Agricultural Economics, Purdue University, West Lafayette, IN, USA

Brian H. S. Kim Department of Agricultural Economics and Rural Development, Interdisciplinary Program in Agricultural and Forest Meteology, and Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul, Korea

Euijune Kim Department of Agricultural Economics and Rural Development and Research Institute of Agricultural and Life Science, Seoul National University, Seoul, Korea

Jae Hong Kim Department of Public Administration, School of Social Sciences, University of Ulsan, Ulsan, Korea

Changkeun Lee Research Institute of Advanced Materials, Seoul National University, Seoul, Korea

Jaewon Lim School of Public Policy & Leadership, Greenspun College of Urban Affairs, University of Nevada, Las Vegas, NV, USA

Up Lim Department of Urban Planning and Engineering, Yonsei University, Seoul, Korea

Kyung-Min Nam Department of Urban Planning and Design, The University of Hong Kong, Pokfulam Road, Hong Kong

JiYoung Park Department of Urban and Regional Planning, University at Buffalo, The State University of New York, Buffalo, NY, USA

In Kwon Park Department of Urban Administration, University of Seoul, Seoul, Korea

Marc Wolfram Department of Urban Planning and Engineering, Yonsei University, Seoul, Korea

Dong Keun Yoon Department of Urban Planning and Engineering, Yonsei University, Seoul, Korea