

# Preface

The constantly changing landscape of Regional Development makes it challenging for experts and practitioners to stay informed of the field's most up-to-date research. That is why Information Science Reference is pleased to offer this three-volume reference collection that will empower students, researchers, and academicians with a strong understanding of critical issues within Regional Development by providing both broad and detailed perspectives on cutting-edge theories and developments. This reference is designed to act as a single reference source on conceptual, methodological, technical, and managerial issues, as well as provide insight into emerging trends and future opportunities within the discipline.

*Regional Development: Concepts, Methodologies, Tools and Applications* is organized into eight distinct sections that provide comprehensive coverage of important topics. The sections are: (1) Fundamental Concepts and Theories, (2) Development and Design Methodologies, (3) Tools and Technologies, (4) Utilization and Application, (5) Organizational and Social Implications, (6) Managerial Impact, (7) Critical Issues, and (8) Emerging Trends. The following paragraphs provide a summary of what to expect from this invaluable reference tool.

Section 1, **Fundamental Concepts and Theories**, serves as a foundation for this extensive reference tool by addressing crucial theories essential to the understanding of Regional Development. Introducing the book is “*ICT Strategy for Development*” by Dina Rateb and Sherif Kamel, a great foundation laying the groundwork for the basic concepts and theories that will be discussed throughout the rest of the book. Another chapter of note in section 1 is titled “*Mobile Telephony and Economic Growth in Developing Economies*” by Kaisu Puumalainen, Anni Tuppurä, and Heli Virtä, which discusses the use of cellular technology in developing regions, an important phenomenon where wired technology has a hard time gaining an infrastructural foothold. Section one concludes, and leads into the following portion of the book with a nice segue chapter, “*Quality of Life Modeling at the Regional Level*,” by Jiri Krupka. Where section 1 leaves off with fundamental concepts, section 2 will discuss architectures and frameworks in place for regional development.

Section 2, **Development and Design Methodologies**, presents in-depth coverage of the conceptual design and architecture of Regional Development, focusing on aspects including innovation strategies, energy platforms, capacity modeling, digital divide/open source, bioenergy, sustainable development, and many more. Opening the section is “*Modeling of the Economic Development of a Region*” by Renáta Myšková and Ivana Linkeová. This section is vital for developers and practitioners who want to know how to begin a process of development on an infrastructural, regional level. Through both rural and urban planning case studies, this section lays excellent groundwork for later sections that will get into present and future applications for Regional Development, including, of note: “*Institutional Framework for Analyzing Sustainability in European Agriculture and Rural Areas*” by Stefano Pascucci, Nico Polman,

and Louis Slangen, and “*Reviewing the European Innovation Activities and Industrial Competitiveness*” by Aikaterini Kokkinou and George M. Korres. The section concludes with an excellent work by Mohinder C. Dhiman and Arvind Kumar Dubey, entitled “Sustainable Tourism Development in India.”

Section 3, **Tools and Technologies**, presents extensive coverage of the various tools and technologies used in the implementation of Regional Development. Section 3 begins where section 2 left off, though this section describes more concrete tools at place in the modeling, planning, and production of regional development. The first chapter, “*Agriculture, Communication, and Socioeconomic Development*,” by Emmanuel C. Alozie, lays a framework for the types of works that can be found in this section, a perfect resource for planners looking for new technologies to bolster their efforts in the field. Section 3 is full of excellent chapters like this one, including such titles as “*An Agricultural Decision Support System for Optimal Land Use Regarding Groundwater Vulnerability*,” “*A Model for Improving the Adoption of Sustainability in the Context of Globalization and Innovation*,” and “*Triple Helix, Quadruple Helix and Quintuple Helix and How Do Knowledge, Innovation and the Environment Relate To Each Other?*” to name a few. Where section three described specific tools and technologies at the disposal of practitioners, section four describes successes, failures, best practices, and different applications of the tools and frameworks discussed in previous sections.

Section 4, **Utilization and Application**, describes how the broad range of Regional Development efforts has been utilized and offers insight on and important lessons for their applications and impact. Section four includes the widest range of chapters because it describes case studies, research, methodologies, frameworks, architectures, theory, analysis, and guides for implementation. Topics range from IT education, TQM, NPD, and tourism to competitiveness, environmental governance, and municipal applications. The first chapter in the section is titled “*Sustainable Management of Agricultural Resources and the Need for Stakeholder Participation for the Developing of Appropriate Sustainability Indicators*,” and was written by Konstantinos N. Baginetas. The breadth of topics covered in the chapter is also reflected in the diversity of its authors, from countries all over the globe, including Greece, Japan, India, Serbia, Bosnia and Herzegovina, France, Romania, USA, and more. Section four concludes with an excellent view of a case study in developing a strong urban center, “*Urban Competitiveness, U-City Strategies and the Development of Technological Niches in Songdo, South Korea*” by Luís Carvalho.

Section 5, **Organizational and Social Implications**, includes chapters discussing the organizational and social impact of Regional Development. The section opens with “*Innovation Policy, Competitiveness, and Growth*” by Aikaterini Kokkinou. Where section four focused on the broad, many applications of Regional Development technology, section five focuses exclusively on how these technologies affect human lives, either through the way they interact with each other, or through how it affects behavioral/workplace situations. Other interesting chapters of note in section five include “*Dynamics in a Non-Scale R&D Endogenous Economic Growth for Chinese Development*” by Qiong He and “*Gender and ICT Policy for Development and Empowerment*” by Kutoma Jacqueline Wakunuma-Zojer. Section five concludes with a fascinating study of the differences in how the sexes approach different forms of technology in “*Gender and Technology*.”

Section 6, **Managerial Impact**, presents focused coverage of Regional Development as it relates to effective uses of workflow scheduling, error recovery, content analysis, and many more utilities. This section serves as a vital resource for developers who want to utilize the latest research to bolster the capabilities and functionalities of their processes. The section begins with “*Business Models for Development*,” a great look into the crossover technologies and frameworks that business managers and regional developers can teach each other. Because of the narrower scope of the topic area of section six, there are

only 10 chapters in the section, but the value of the works is unmistakable. The section concludes with “*Study on Environmental Tax*” by Huifeng Li and Xuanwei Zhang. Where section six leaves off, section seven picks up with a focus on some of the more content-theoretical material of this compendium.

Section 7, **Critical Issues**, presents coverage of academic and research perspectives on Regional Development tools and applications. The section begins with an expository chapter, “*A New Development Opportunity Confronts Old Paradigms*” by Peter A. Kwaku Kyem. Other issues covered in detail in section seven include security, quality, principles and methodology, higher education applications, and much more. The section concludes with “*A Theory for Sustainability of Townscape*” by Tan Kamil Gurer, which is a great transitional chapter between section seven and eight because it looks at an important topic going into the future of the field. The last chapter manages to show a theoretical look into future and potential technologies, a topic covered in more detail in section eight.

Section 8, **Emerging Trends**, highlights areas for future research within the field of Regional Development, opening with “*Paradigm Shift Required for ICT4D*” by Jacques Steyn. Section eight contains chapters that look at what might happen in the coming years that can extend the already staggering amount of applications for Regional Development. Other chapters of note include “*Towards Sustainable Development of Energy-Aware Systems*” and “*City 2.0 as a Platform for Global E-Entrepreneurship and Innovation*.” The final chapter of the book looks at an emerging field within Regional Development, in the excellent contribution, “*Emerging Technology Transfer, Economic Development and Policy in Africa*” by Chi Anyansi-Archibong, Alfred Kisubi, Ngozi C. Kamalu, Johnson A. Kamalu, and Michael U. Adikwu.

Although the primary organization of the contents in this multi-volume work is based on its eight sections, offering a progression of coverage of the important concepts, methodologies, technologies, applications, social issues, and emerging trends, the reader can also identify specific contents by utilizing the extensive indexing system listed at the end of each volume. Furthermore to ensure that the scholar, researcher, and educator have access to the entire contents of this multi volume set as well as additional coverage that could not be included in the print version of this publication, the publisher will provide unlimited multi-user electronic access to the online aggregated database of this collection for the life of the edition, free of charge when a library purchases a print copy. This aggregated database provides far more contents than what can be included in the print version, in addition to continual updates. This unlimited access, coupled with the continuous updates to the database ensures that the most current research is accessible to knowledge seekers.

As a comprehensive collection of research on the latest findings related to using technology to providing various services, *Regional Development: Concepts, Methodologies, Tools and Applications*, provides researchers, administrators and all audiences with a complete understanding of the development of applications and concepts in Regional Development. Given the vast number of issues concerning usage, failure, success, policies, strategies, and applications of Regional Development in organizations, *Regional Development: Concepts, Methodologies, Tools and Applications* addresses the demand for a resource that encompasses the most pertinent research in technologies being employed to globally bolster the knowledge and applications of Regional Development.