

# Preface

Very recently, there has been a remarkable and innovative interest in urban planning issues. A major impetus was provided by climate change which is one of the biggest development challenges of our times. The Paris Climate Change Agreement and Post-2015 Sustainable Development Goals (SDGs) in 2015 and the New Urban Agenda in 2016 sought to accelerate the impetus for evolution of climate smart urbanism. Much of the discussion on low-carbon smart city issues and on climate resilience planning is about the better application of ICT and smart connect-tech in every aspect of urban planning. However, there will always be pressure for innovation planning. How much better tools for low-carbon, resilience planning would be to mitigate the potential emissions of GHG or to reduce disaster risk of future urbanization at the planning stage.

Climate resilient and low-carbon smart cities can be defined as one that has digitalized connections of all sectors and functions, in which everything is connected, acknowledging sustainability, resiliency, circularity, efficiency, and connectivity of the city. It incorporates climate mitigation and adaptation policy goals at each stage of planning process and with urban policy. Low-carbon, resilient smart city planning is at the developing stage. This is not mandatory. There is no internationally recognized city climate planner certification system yet. However, its importance has spread worldwide and receives a significant boost all over the world with the introduction of ICT and innovation connect-tech. Low-carbon resilient smart city planning is an approach in good business. It is also an area where many of the planning practitioners in both public and private sectors have limited experience.

This book provides a comprehensive introduction to the various dimensions of low-carbon, resilient smart city planning. It has been written as a seminal book with many case studies and with trial-and-error test bed examples. It should be of considerable value to those in practice for integrated solutions to unfinished urban agenda—policy decision makers, planners, developers, business people, and various interest groups.

This book is structured into eight chapters. The first provides an introduction to the impact of urbanization on urban ecosystem and their services, and overview of

planning responses to climate change with selected case studies and introduces the concept of climate resilient and low-carbon smart urbanism: city climate urbanism. Chapter 2 provides planning models for climate resilient and low-carbon smart cities as an urban innovation for sustainability, efficiency, resiliency, circularity, and connectivity. Chapter 3 examines integrated planning approach to climate resilient and low-carbon smart cities in terms of process and methods. Chapter 4 addresses methods and techniques in more detail through selected practices. Chapter 5 takes a look to urban CDM-based approach and carbon financing banking system as a carbon governance approach. Chapter 6 examines research needs related to technology and smart urban investments. Chapter 7 describes implementation of climate smart cities through global climate smart city platform solution. Chapter 8 considers possible future developments.

Although this book has, to some extent, a planning orientation, it does draw extensively on application of ICT and smart technology innovation in urban environmental planning, and it should be of interest to readers from many different disciplines. This book seeks to highlight innovation practice and to offer enough insight to methods and techniques, and to provide market opportunities through valuable platform/guide to practitioner and investors.

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