

1. Record Nr.	UNINA9910523732003321
Titolo	Smart villages : bridging the global urban-rural divide // V.I. Lakshmanan [and three others], editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2022] ©2022
ISBN	3-030-68458-X
Descrizione fisica	1 online resource (511 pages)
Disciplina	307.1412
Soggetti	Rural development - Environmental aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Foreword -- Preface -- Introduction -- Contents -- About the Editors -- About the Contributors -- Abbreviations -- Part I: Defining the Need -- Chapter 1: Setting the Scene -- 1.1 Introduction -- 1.2 The Human Journey -- 1.2.1 Civilizations on Riverbanks -- 1.2.2 The Society -- 1.2.3 From Indus to Ganges -- 1.2.4 Progress in Other Parts of the World -- 1.2.5 Trade Exploration to Colonization -- 1.2.6 Industrial Revolution and Urbanization of the Agrarian Society -- 1.2.7 Globalization and the Rise of Multinational Companies -- 1.2.8 Rise of the Giants - Multinational Companies, the Modern Era Colonizers -- 1.3 Ground Reality - The Urban-Rural Divide -- 1.4 Fading Arts and Culture -- 1.5 Striking a Balance -- 1.6 Bridging the Urban-Rural Divide -- 1.7 Conclusion -- References -- Chapter 2: Smart Village - Concept and Intended Benefits -- 2.1 Introduction -- 2.2 Evolution of Smart Village Concepts -- 2.3 Smart Village - Standardization -- 2.4 Ideal Elements of a Smart Village -- 2.5 Financing Options for a Smart Village Implementation -- 2.6 Benefits from a Smart Village Implementation -- References -- Chapter 3: Bridging the Urban-Rural Divide -- 3.1 Introduction -- 3.2 Global Population Profile -- 3.3 Global Smart Cities Initiatives -- 3.4 Characterization of Urban and Rural Regions -- 3.5 Impact of the Divide and Remedies -- References -- Chapter 4: Smart Village - Methodology and Capacity Building -- 4.1 Introduction -- 4.2 Methodology -- 4.2.1 Data Elements to Be Populated -- 4.3 Scalability -- 4.4 Capacity Building --

4.5 Costing the Vision - The Elements -- 4.6 Conclusion -- References -- Chapter 5: Ensuring a Sustainable Development Ecosystem -- 5.1 Introduction -- 5.2 Elements of a Sustainable Ecosystem -- 5.2.1 Economic Sustainability -- 5.2.2 Technology, Connectivity and Transport -- 5.2.3 Housing and Infrastructure. 5.2.4 Services -- 5.2.5 Environmental Sustainability -- 5.2.6 Social and Cultural Sustainability -- 5.2.7 Governance -- 5.3 Conclusion -- References -- Chapter 6: Preserving Indigenous Traditions and Values -- 6.1 Introduction -- 6.2 The Canadian Experience -- 6.2.1 The Tahltan Journey of Nation Revitalization -- 6.3 Creating a Model for Preserving Indigenous Values in a Smart Village -- 6.4 Embracing Globalization, Resisting Urbanization -- Reference -- Part II: Building the Framework -- Chapter 7: Governance Aspects of a Smart Village - Developed Economy -- 7.1 Introduction -- 7.2 The Smart Village Concept -- 7.2.1 Data-Driven Sectors of a Smart Village -- 7.2.2 Key Enabling Technologies of Smart Villages -- 7.2.2.1 5G Wireless Network [1] -- 7.2.2.2 Smart Grid -- 7.3 Data Governance Frameworks of Developed Economies -- 7.3.1 Canada -- 7.3.1.1 PIPEDA [2] -- 7.3.1.2 Canadian Charter Rights and Freedoms -- 7.3.1.3 Privacy Act 1974 -- 7.3.2 The European Union -- 7.3.2.1 European Convention on Human Rights -- 7.3.2.2 General Data Protection Regulation [3] -- 7.3.3 The United States -- 7.3.3.1 The US Constitution and Sectoral Approach -- 7.3.3.2 California Consumer Privacy Act 2020 -- 7.3.4 Governance and Government Policies -- 7.3.5 Stakeholders' Governance -- 7.3.6 Unintended Consequences -- 7.3.7 Implications of Social Media -- 7.4 Towards Privacy by Design and Default -- 7.4.1 Society 5.0 [7] -- 7.4.2 Implications for Governance in Society 6.0 -- 7.4.3 Society 6.0 Data Governance -- 7.4.4 Assigning Value to the Data -- 7.5 Conclusion -- References -- Chapter 8: Decentralizing Towards Good Governance at the Grassroots -- 8.1 Introduction -- 8.2 Modern Democracy -- 8.3 Democracy and Development -- 8.4 Different Democracies -- 8.5 Silent Revolution Towards Local Governance -- 8.6 Indian Democracy - Centralized Governance. 8.7 Need for Decentralization -- 8.8 Solutions -- 8.9 Short-Term Measures -- 8.10 Long-Term Measures -- 8.11 Conclusion -- References -- Chapter 9: Components of an Ontology for a Smart Village -- 9.1 Introduction -- 9.1.1 What Is an Ontology? -- 9.1.2 Ontology for a Smart City -- 9.1.3 Ontological Approach to Smart Villages -- 9.1.4 Organization of the Chapter -- 9.2 Smart Cities -- 9.2.1 Work of Albino et al. -- 9.2.2 Work of the Centre of Regional Science, Vienna UT, October 2007 -- 9.2.3 Ramaprasad's Ontology: Critical Review and Discussion -- 9.3 Learning and the Smart Village -- 9.3.1 Learning, Praxis and the Praxical -- 9.3.2 The Role of Learning -- 9.4 Smart Villages -- 9.4.1 Components of a Village -- 9.4.2 Stakeholders -- 9.4.3 Outcomes -- 9.4.4 The Attribute of 'Smart' -- 9.4.5 Visualization of the Dimensions -- 9.5 Conclusion -- References -- Chapter 10: A Blueprint for Rural Public Health -- 10.1 Overview -- 10.2 Burden of Disease: Demographic and Epidemiological Transition -- 10.3 Healthcare Spending -- 10.3.1 Physical Resources -- 10.3.2 Human Resources -- 10.3.3 HIV/AIDS and COVID-19 -- 10.4 Challenges for Primary and Community Healthcare -- 10.5 Challenges for Secondary and Tertiary Healthcare -- 10.5.1 Deployment of Modern Technology -- 10.5.1.1 Telehealth -- 10.6 Description of Proposed Primary Healthcare Centre -- 10.7 Conclusion -- References -- Chapter 11: Socio-economic Conceptualization of Smart Villages -- 11.1 Introduction -- 11.2 The Mass/Total Literacy Campaign (TLC) in Pudukkottai -- 11.2.1 The National Policy Background -- 11.2.2 The Local Context: Pudukkottai District in 1991 -- 11.2.3 The Total Literacy

Campaign in Pudukkottai -- 11.3 Social Mobilization as a Key Community Resource for a Smart Village -- 11.4 Tackling Female Infanticide Through Social Mobilization.

11.4.1 Intervention in Dharmapuri District of Tamil Nadu -- 11.5 Conclusion -- References -- Chapter 12: Smart Villages - Indian Realities, Opportunities and Way Forward -- 12.1 Introduction - India's Agricultural Reality -- 12.2 The Concept of PURA -- 12.3 The Implementation of PURA by the Government of India -- 12.4 After PURA - SPMRM -- 12.5 Indian Realities -- 12.6 Smart Villages and the SPM NRuM Mission -- 12.7 Smart Projects for Smart Villages -- 12.7.1 Agriculture for Smart Villages -- 12.7.2 Quick Walkthrough of NRuM and Elements for Adding Smart Features -- 12.8 Rural India - New Opportunities -- 12.8.1 Leveraging 'Circular Migration' -- 12.8.2 Drive in India -- 12.8.3 Ration Shops as Banking Outlets -- 12.8.4 India Post Pay Bank -- 12.9 Support from Governance Systems -- References -- Chapter 13: Leveraging Physical, Digital and Knowledge Connectivity for Smart Villages -- 13.1 Introduction -- 13.2 Aspirations for a Better Life in Rural Villages -- 13.3 Recent Developments -- 13.4 Digital Technology Framework and Strategy for Smart Villages -- 13.5 Understanding Current Digital Landscape in Rural Villages -- 13.5.1 Digital Infrastructure -- 13.6 Community Partnership to Develop Vision and Identify Roadmap -- 13.6.1 Strategy Development -- 13.7 Government Policy Support and Alignment with Community Vision -- 13.8 Defining Strategies for Policy Support -- 13.8.1 Project Prioritization and Defining High Impact Projects -- 13.8.2 Approvals and Clearances for Projects and Strategy for Funding -- 13.9 Business Case Challenges for Smart Villages -- 13.9.1 Possible Business Models for Smart Villages -- 13.10 Project Implementation and Change Management -- 13.11 Education and Training (Digital Literacy), and Continuous Improvement (CI) with New Technologies -- 13.11.1 Combining Bottom-Up or Top-Down Approaches. 13.11.2 Smart Village Governance for Digital Way of Working and Sustainability -- 13.12 Examples of Digital Technology Implementations in Smart Villages -- 13.12.1 Building Smart Villages in Niger, Africa -- 13.12.2 Assam Smart Villages in India in Collaboration with University of Melbourne -- 13.12.3 A Fibre-Optic Cooperative in Finland's North-Western Kumho Village -- 13.12.4 LA WAB Digital Training Hub, Bergerac, France -- 13.12.5 Digital Villages, Germany -- 13.12.6 The Zwit Smart Management Network, Spain -- 13.12.7 Cocotte Numerique, France -- 13.12.8 Superfast Cornwall, UK -- 13.13 Conclusion -- References -- Chapter 14: Appropriate Technologies for Value Addition in Rural Indian Villages -- 14.1 Introduction -- 14.2 A Framework for Change -- 14.3 Pre-intervention Considerations -- 14.4 The Science & Technology Interventions -- 14.4.1 Agriculture -- 14.4.2 Waste to Wealth - Resource Recycling -- 14.4.3 Healthcare and Disability -- 14.4.4 Energy and Off-Grid Power Generation -- 14.5 Post-intervention -- 14.6 Conclusion -- References -- Chapter 15: The Role of Skills Development in Smart Villages -- 15.1 Introduction -- 15.2 Education, Learning and Skills -- 15.2.1 Sustainable Development Goals -- 15.2.2 The OECD Framework -- 15.2.3 Our Definition of Education, Learning and Skills -- 15.3 Needs and Predicament of Rural Populations (Demand) -- 15.3.1 Poverty Statistics -- 15.3.2 Unemployment and Underutilization -- 15.3.3 Informal Employment -- 15.3.4 Motivation for Learning -- 15.3.5 Not in Education, Employment or Training (NEET) -- 15.4 Current Skill Development Strategies (Supply) -- 15.4.1 Different Approaches -- 15.4.1.1 Providing Rural Communities with Complementary Support to Leverage Native Skills -- 15.4.1.2

Building Rural Capacity to Leverage Native Skills -- 15.4.1.3 Building Skills for Endogenously Identified Jobs.
15.4.2 Challenge of Numbers in India.
