## Contents

*Preface* ................................................................. v

*List of Contributors* .................................................. xv

Part I. The First Step: An Overview

1. **Fundamental Asian Conditions: Geography, Climate, Thoughts, and Lifestyles** .................................................. 3
   1.1 Asian Natural Factors Affecting City and Transport .......... 3
   1.2 Asian Philosophies and Life-Style ............................. 10
   1.3 Asian Thoughts and City and Transport ........................ 18

References .............................................................. 28

2. **Growing Economies and Cities in Asia: From Comparative and Historical Viewpoints** ................................. 29
   2.1 Geographical Coverage of Asia ...................................... 29
   2.2 Asian Economic Growth in History ................................. 31
   2.3 Recent Performance of Asian Economies ......................... 32
   2.4 Factors for High Economic Growth in Asia ....................... 33
   2.5 Formation of Port Cities in the Medieval Ages .................. 37
   2.6 Population Growth and Urbanization in the World and Asia .......... 38
   2.7 Economic Growth, Population Growth, and Urbanization ........ 40
   2.8 Megacities in Asia .................................................. 46
   2.9 Development Strategy and Megacities ........................... 49
   2.10 Toward an Aging Society ........................................... 51

References .............................................................. 57

Notes ................................................................... 57
3. **Sustainability in Urban Transport: Multidimensional Meanings and States** ............................................. 59
   3.1 Sustainability in an Asian Context ................................. 60
   3.2 On Transport Safety ................................................. 62
   3.3 On Environmental and Energy Sustainability ................. 65
   3.4 In Security .............................................................. 69
   3.5 On Social Sustainability ............................................ 71
   3.6 On Robustness in Facing Natural Disasters .................. 72
   3.7 On Finance ............................................................. 75
   References ................................................................... 78

Part II. **Best Practices from Asia with Wisdom:**
**Keys to Success and Facing Limitations**

4. **Building Transport Systems for People** ............................. 83
   4.1 Non-motorized Transport and Pedestrians .................... 83
   4.2 Urban Rail Systems – Tokyo and Her Sisters .................. 86
   4.3 Urban Expressway Systems – Shanghai and Tokyo .......... 100
   4.4 Building Ring Roads in Advance – Beijing .................... 106
   4.5 Rapid Transit System in Developing Asia – Metro Manila ........................................... 115
   4.6 Coordinating Long-distance and Urban Transport – Hong Kong ........................................... 119
   4.7 Bus Systems and Its Management – Seoul, Bangkok, Nagoya and Jakarta ......................... 127
   References ................................................................... 141
   Notes ........................................................................... 142

5. **Managing Transport Supply and Demand:**
   **From Passengers to Freight** ........................................... 143
   5.1 The Origin and Strongest TDM in the World ................. 144
   5.2 Effects of Congestion Pricing at the Namsan Tunnels in Seoul .................................................. 154
   5.3 Bus System Restructuring – Seoul ................................ 161
   5.4 Inducing Motorcycles to Public Transit – Taipei ............ 169
   5.5 Challenging Sustainable Urban Logistics ...................... 177
   References ................................................................... 186
6. For Better Urban Form: From Macroscopic Control to Microscopic Development ........................................... 189

6.1 The Designation and Adjustment of Restricted Development Zone in Korea ........................................ 190
6.2 Typical Examples of Transit-Oriented City Development in Asia ....................................................... 197
6.3 Realizing Vital, Comfortable, and Walkable Centers ................................................................. 205
6.4 Rebuilding City with Tram: Hiroshima and Dalian ................................................................. 224
6.5 Traffic Impact Assessment ........................................................................................................ 229
References ........................................................................................................................................ 234

7. Managing Transport with People ........................................................................................................... 237

7.1 Road Safety Audit Involving the Public: Thailand ........................................................................... 238
7.2 Cooperative Road Management with Users: Japan ........................................................................ 251
7.3 Community-Based Development and Transport – Metro Manila .................................................. 262
7.4 IT-Based Public Participation and Traffic Survey: Japan ............................................................ 268
References ........................................................................................................................................ 273

Part III. Future of Urban Transport in Asia: Rising Asia Proposes to the World

8. Development and Management of Transport Systems ........................................................................... 277

8.1 Urban Public Transit Systems Required in Asian Cities ............................................................... 277
8.2 Sustainable Developing Road Transport System – Case Study of Hanoi ........................................... 289
8.3 Future Direction of Paratransit ..................................................................................................... 296
8.4 Better Urban Space Allocation for Pedestrians and Non-Motorized Modes: Traffic Impacts of a Serious Loss of Road Capacity Followed by Cheonggyecheon Restoration in Seoul .................................................. 301
8.5 Comprehensive Approaches for Traffic Safety ............................................................................ 308
8.6 Convenient and Sustainable City Logistics .................................................................................. 318
8.7 Role of ITS for Sustainability ....................................................................................................... 328
References ........................................................................................................................................ 333
9. Travel Demand Management in Asian Context

9.1 Asia-Fitted TDM

9.2 Effective and Feasible Measures of TDM for Cities in Asia

9.3 Soft-Landing Motorization Management – Specially Considering the Motorcycle

References

10. Growth Management and Site-Development Strategies

10.1 Sustainability Assessment of Compact Cities

10.2 Site-Development Policies – TOD in Special

References

Notes


11.1 Financing Measures for Urban Transport for Asia

11.2 Urban Administration

11.3 Management System Collaborative with Users

11.4 Planning Processes for a Sustainable Society

11.5 Urban Transportation Policy and Poverty Reduction in Asia

References

Notes

Index
Sustainable Urban Transport in an Asian Context
Ieda, H. (Ed.)
2010, XVIII, 422 p. 170 illus., Hardcover
ISBN: 978-4-431-93953-5