URBAN GOVERNANCE AND SMART CITY PLANNING
This page intentionally left blank
URBAN GOVERNANCE AND SMART CITY PLANNING

Lessons from Singapore

ZAHEER ALLAM
The Port Louis Development Initiative, Mauritius
# CONTENTS

<table>
<thead>
<tr>
<th>List of Figures</th>
<th>vii</th>
</tr>
</thead>
<tbody>
<tr>
<td>About the Author</td>
<td>ix</td>
</tr>
<tr>
<td>Foreword</td>
<td>xi</td>
</tr>
<tr>
<td>Preface</td>
<td>xvii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>xix</td>
</tr>
</tbody>
</table>

1. The Rise of Singapore: An Urban Perspective 1
   - Introduction 1
   - Singapore as the Ideal Case Study for Urban Regeneration 4
   - A Historical Perspective 6
   - From a Third World to First World Country 10
   - Towards Economic Resilience 11
   - Geography and Political Challenges 15
   - Infrastructure Building 19
   - Conclusion 26

2. Singapore's Governance Style and Urban Planning 27
   - Introduction 27
   - Dwelling into Singapore's Autocratic Governance Style 32
   - Leadership and Urban Development 36
   - Public Participatory Planning in Singapore 39
   - Conclusion 43

3. Seeking Liveability Through the Singapore Model 45
   - Introduction 45
   - The Singapore's Liveability Framework 48
The Integrated Master Planning and Development  50
Dynamic Urban Governance  52
Urban Metabolism and Sustainability  53
Technology  59
Safety  61
Resilience  63
Biophilia  68
Discussion  74
Conclusion  75

Conclusion  77

References  83
Index  111
LIST OF FIGURES

Figure 1.1 Location Map of Singapore. 9
Figure 1.2 Closeup Map of Singapore. 9
Figure 1.3 Housing Development Projects by the Singaporean Government. 20
Figure 1.4 Singapore Port. 21
Figure 1.5 Road Infrastructure at Lau Pa Sat in Singapore. 22
Figure 1.6 Terminal 3 at the Changi International Airport. 23
Figure 1.7 Terminal 3 at the Changi International Airport. 24
Figure 2.1 Housing Complex in Singapore. 30
Figure 3.1 The Singapore’s Liveability Framework. 50
Figure 3.2 The Singapore River Today. 55
Figure 3.3 River Promenade. 56
Figure 3.4 The Semakau Island. 58
Figure 3.5 The Singapore River Dam known as the ‘Marina Barrage’. 66
List of Figures

Figure 3.6  The Skyline Development along the Singapore River. 67
Figure 3.7  Gardens by the Bay. 71
Figure 3.8  Indoor Waterfall, Gardens by the Bay. 72
Figure 3.9  Green Roof on HDB Housing. 73
Figure 3.10 Changi International Airport, Terminal 3. 73
Zaheer Allam holds a PhD from Curtin University (Australia), an MA (Res) in Political Economy from the University of Sydney (Australia), an MBA from Anglia Ruskin University (UK) and a Bachelor of Applied Science in Architectural Science from Curtin University (Australia). Based in Mauritius, he works as an Urban Strategist for The Port Louis Development Initiative (PLDI) and the Global Creative Leadership Initiative (GCLI) and consults on a number of projects on the thematic of Smart Cities across the African continent and on strategies dwelling in the increasing role of technology in Culture and the Society. Zaheer is also the African representative of the International Society of Biourbanism (ISB), member of the Advisory Circle of the International Federation of Landscape Architects (IFLA) and a member of a number of other international bodies. For his contributions to society, he was elevated, by the President of Mauritius, to the rank of Officer of the Order of the Star and Key of the Indian Ocean (OSK), the highest distinct order of merit in Mauritius. He is also a recipient of a number of other awards and writes extensively on the thematic of sustainability and resilience in cities. He is also the author of *Theology and Urban Sustainability* and *Cities and the Digital Revolution: Aligning Technology and Humanity*. 
This page intentionally left blank
LOOK BEYOND THE ‘GREEN CITY MIRACLE’

By Professor David S. Jones, FAILA

The urban regenerative process, as advanced in Singapore, is perhaps one of the most interesting precedents internationally, from both academic and professional practice standpoints. It is not simply a tree planning agenda, nor a greening the city agenda. It is more holistic and enlightened about the need to address urban regeneration, landscape healing and climate change/resilience-responsive strategies to the betterment and well-being of both the landscape and Singapore’s citizens and visitors.

This strategy addressed all dimensions of liveability including societal, economic and environmental ones well before international recognition and acceptance of sustainable development, the essential message in the United Nations’ SDG 11 (Sustainable Communities), was considered and adopted. The Singaporean approach is to use social uplift as a catalyst for urban regeneration. Such is unique in its very endeavour. But one must also acknowledge the governance models that led to this process and the societal transition through the strong leadership of the then Prime Minister Lee Kuan Yew (1923–2015).
In retrospect, Lee has stated:

Cities cannot just be made up of concrete buildings, tarmac and pavements. It would be depressing and unpleasant to live in. You need to balance that with trees and flowers. This will make Singapore more pleasant to live in.

“Singapore has become much greener, despite increased urbanization. Almost half of Singapore is covered in greenery. We have set aside land for world-class gardens, parks and nature reserves. Many visitors are amazed at our tree-lined roads, and this has become an economic value to us. More importantly, Singaporeans today live in beautifully landscaped housing estates and are able to exercise and enjoy fresh air in the urban oases right at their doorsteps. None of this would have been possible without decades of conscientious planning and commitment (Lee in Soper, 2015).

Lee’s strong leadership helped Singapore graduate from a third to a first world country in just under one generation. This endeavour is both remarkable and commendable. While it may be sometimes criticised today by Western democracies and Western authors, one must understand the context of this style of urban governance in respect to both time and place. Post-British and Japanese colonialism saw a Singapore plagued by poverty and poor infrastructures that had scared this society on many levels. The urban governance model applied was led through the willing co-operation of a population whom acknowledged the need for change, transform,
prosperity, stability and social cohesion. The interesting aspect of this is how large urban projects of national importance have successfully been devised from inception to delivery, within short time-frames, while engaging in participatory planning. Today, this success is not contested. As a consequence, Singapore enjoys a strong demographic platform that invests significantly in its urban realm and acknowledges the role of technology in furthering participatory planning to ensure a wider social cohesion whereby Singaporeans take ownership of state-led projects. Such is a key in ensuring high liveability levels in urban areas.

While architectural projects can be deployed in a few years, cities, on the other hand, can take generations and longitudinal landscape architecture projects to unfold to unveil their full potential. Though widely acclaimed, if we are to look at Singapore from a timescale, we will realise that the country is still young, is yet to fully establish itself and is now embarking on another exciting transformational journey. As this transformation unfolds, there will be increasing attention from both the academic and professional practice circles on how Singapore’s societal and economic dimensions are been crafted and mediated to support, sustain and strengthen human and biodiversity quality of life, which also include the safeguarding of environmental assets.

Zaheer Allam has successfully addressed this topic in this book. Offering an insightful inquiry, he has explained the governance structures and participatory planning key processes as adopted by Singapore and their roles in driving this transformation. Although the same governance structures may be difficult to adopt, in our day and age, in other countries, there are ‘lessons to be learnt’ from Singapore’s transformational journey. Better understanding the past is a key in providing a better outlook on the future, and Singapore may
be just innovatively leading the way by offering an inspiration that change is possible – irrespective of the challenges – but also by offering a co-ordinated ‘toolkit’ of how to effectively enable societal adhesion in urban regenerative processes. Allam has synthesised the Singaporean story carefully, and this book may hopefully act as a guide for others to calibrate the lessons learnt to better adapt to their own cities or countries.

As the world grapples today with challenges of scale, through demographic growth, urbanisation and climate change, we need revised urban governance models. Maybe it is the Singapore model that offers templates and ideas that can inspire us to change ourselves towards alternate urban survival strategies and enable the greater enrichment of humanity.

ABOUT

Professor David Jones has been the Foundation Professor of Landscape Architecture and Planning at Deakin University since 2011. He has degrees in planning, landscape architecture and heritage studies, including a PhD from the University of Pennsylvania. His teaching and research spans across urban planning, landscape architecture, indigenous knowledge systems, regenerative systems and biophilia. His portfolio includes work on the Forest Gallery at Museum Victoria (1995–1996), the Victoria Square-Tarntanyangga Regeneration Project (2017), the Adelaide Park Lands and Squares Cultural Landscape Assessment Study (2007) and design scenarios for Gunditjmara lands associated with the Budj Bim National Heritage Landscape and their World Heritage Listed property. He is the co-author of Geelong’s Changing Landscape: Ecology, Development and Conservation (2019),
This page intentionally left blank
PREFACE

The subject of seeking urban development and economic prosperity in a post-colonial setting is increasingly sought as countries, formerly under the reign of colonial powers, move away from dictatorial regimes to adopt models of democracy. This shift is well received by communities as those witnessed how stronghold regimes can exploit the resources of areas for personal profits, and how this can lead to marginalised communities, hence rendering a fabric of inequity, being a breeding ground for conflicts.

The case of Singapore is interesting in this sense as we see how, immediately after its colonial episode, the country embarked on a transformative journey so successful that the country has managed to move from a third world to a first world country in only one generation. Even if its style of autocratic governance has often been criticised, we need to adopt an objective view and explore how this has led to numerous positive outcomes which have helped the government to provide basic services to an impoverished post-colonial state at an accelerated rate. The success of Singapore is apparent, as today the country enjoys the quality of life – a high-class society.

So how did the country manage this feat? What can we learn from this style of governance? And how sustainable was
this transformation? This book looks into those questions and unveils the urban narrative from a historical perspective and explores the key dimensions in the urban policy of the country. While we cannot openly advocate for the establishment of similar governance styles in other countries, the study of the Singapore’s success story can help to identify how we could re-calibrate our current governance models in our own context in developments of varying scale and complexity to achieve similar results.

One aspect that has attracted my interest in the formulation of this book is how the local population responded positively to the strong leadership style of Lee Kuan Yew, which begs the question on the validity of complex processes of participatory planning. Indeed, the country would not have achieved this success at this rate if numerous layers of community validation had to be achieved. We then see how prioritisation on certain issues were adopted, where participatory processes were included but only at selected levels, hence achieving community support while allowing for the fast deployment of urban infrastructure and services.

This book thus sets forth to explore the thematic of Urban Governance in the Singaporean context and underlines subjects of interest from the viewpoint of an independent and objective urban practitioner and researcher.
ACKNOWLEDGEMENTS

I am indebted to the Singapore’s Centre for Liveable Cities for an invitation for their flagship programme, the ‘International Leaders for Urban Governance’, in 2018 and later to attend the World Cities Summit in 2019, during which I was introduced to the challenges faced by the country, their incredibly bold solutions and lessons learnt from their transition from a third to first world country. I am also indebted to Sameerah Aumjaud for the editing of this manuscript.