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Climate Change and Sustainable Urban Development in Africa and Asia

Belinda Yuen and Asfaw Kumssa (Eds), Springer: London and New York, 2011, xviii + 266 pp., ISBN 978-90-481-9866-5 Hardback

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The book *Climate Change and Sustainable Urban Development in Africa and Asia* is an outcome of a policy seminar on Climate Change, Housing and Liveable Cities in Africa and Asia which was held between 25th and 27th June 2009 in Singapore. It was under the auspices of the United Nations Centre for Regional Development and the Singapore Institute of Planners. The Book is made up of 14 chapters which systematically synthesize vast evidences in a logical and coherent manner to tell a compelling story of the impact of climate change on urban centres in Africa and Asia, whilst offering some pragmatic and thoroughly scrutinised thoughts for policy reforms in the two regions. The 14 chapters of the book are grouped into four thematic parts where topical issues on the subject are examined. The central themes are as follows; Introduction and Context Setting (pp. 3 – 20), Climate Change and Urban Development (pp.21 – 69), Climate Change and Housing (pp. 70 – 167) and Climate Change and its effect on Cities (168 – 263). The book is well

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written, edited, and proof read, apart from a few instances such as the erroneous claim that ‘China has population of 13 billion’ (p. 195) instead of 1.3 billion.

The first part of the book steers readers to the issue of climate change in emerging economies with emphasis on Africa and Asia. This is followed by an analysis of the trend of global population growth and urbanisation before arguing that Africa and Asia remain the fastest urbanising regions of the world. The authors proceed to offer a detailed profile of the state of urbanisation in the two regions. The most interesting part of this section rests with a critical appraisal of the spatial similarities and differences of Africa and Asia. Several Asian countries (like Japan, china and India) are experiencing rapid economic development and are fast emerging as engines of global growth, something which is largely lacking in Africa (p. 7). Despite this difference, the rapid rate of urbanisation and the fact that several countries in these two continents are poverty stricken and post conflict countries are shared. This part of the book concludes by re-echoing that Africa and Asia are fast urbanising regions and are also at risk of facing the most devastating repercussion of climate change, a logic which eventually becomes the framework for organising the subsequent chapters of the book.

The second part of the book contains some fascinating insights into the climate change and urbanisation nexus. Climate change is primarily caused by human activities which result in the emission of greenhouse gases (GHGs). In the developing economies, an estimated 80 per cent of all GHGs are emitted in urban centres (p. 22), making them the ‘hot spots’ or ‘epicentres’ of climate change. The book makes even more interesting revelations when it employs Michael Lipton’s (1977) ‘Urban Bias Theory’ as the analytical tool to examine the linkages between climate change and urbanisation. The book strongly argues, and justifiably so, that the distribution of state resources and infrastructure (such as potable water, electricity, access to health care) in emerging

economies is biased in favour of urbanised settlements. This eventually becomes a pull factor in drawing rural population to the relatively more developed urban centres. The book argues that “Urbanisation is often accompanied by a change in lifestyle, increased consumption, fossil fuel usage and inefficient energy uses, which contributes heavily to global warming and climate change” (p. 25). Owing to these linkages between urban bias, urbanisation and climate change, the subsequent proposal to ‘reverse urbanisation’ (p. 62) could prove to be an integral strategy to militating climate change. In this regard, the book makes a useful contribution.

The third part of the book focuses on the linkages between climate change and housing. Each of the five chapters in this part of the book explores the ebbs and flows of the changing pattern of housing development in five countries which have been triggered, partly as a result of changing climate. The main argument which this section advances is that climate change has both qualitative and quantitative implications for housing delivery. Rising temperature, flooding, erratic rainfall and the submergence of coastal settlements are all adverse effects of the changing climate. Rising temperatures especially in the tropics results in very warm room condition. In Ghana and other developing countries which are characterised by weak land use planning regimes, developers respond to this changing trends by orienting building to avoid direct sunshine without giving due cognition to natural lighting and ventilation, a practice which has the potential to impact unfavourably on the health of people (p. 112). The twin effect of rising temperature and reduction in rainfall is the increasing scarcity of water resources. The supply of potable water is increasingly becoming intermittent. As a result, people are frequently resorting to water bodies (such as rivers, streams and lakes) which are often unhealthy. These are only two of the several illustrations the book makes to underline the decline in housing quality as a result of climate change. Quantitatively, the available stock of housing supply is reduced when climate change induced floods submerge coastal

and low lying settlements. The case in Ghana (Ada and Keta, p. 107), Johannesburg (p. 141-142) and the whole of Singapore (p. 117-128) are classic example of this development. Victims of such floods are often rendered homeless.

The final part of the book presents some well-written and succinct findings on climate change and its effects on cities in emerging economies. Two main themes are explored here. First, the book maps out the changing trends in urban lifestyles which are directly attributable to the changing climatic conditions. For example rising temperatures in urban centres are leading to an increase in the use of room cooling electronic appliances as adaptation strategy, a development which has severe implications for energy supply (p. 201). Secondly, the book brings to the fore that, although most developing countries are signatories to all international treaties on climate change, there is a wide disparity in terms of the commitment to implement these conditions which are imposed by the treaties. For example, whereas Malaysia has seen relative reduction in the amount of greenhouse gas emissions since the ratification of the Kyoto Protocol (p. 230), China has seen little success as a result of rapid industrialisation, population growth and urbanisation (p. 197 - 200). All these are vital insights for policy purposes, thus making the contributions of the book laudable.

Although the book robustly examines the relationship between climate and urbanisation from Africa and Asia, some downsides were observed. For example, the book is completely silent on the relationship between climate change and the rural economy. Of significant importance is the fact that whilst Africa is the fastest urbanising continent, only 37 percent of the population live in urban areas, the least in the world. The majority of Africans and Asians reside in the countryside. Like urban areas, the impact of climate change is felt in the rural areas. Climate change, for example, has phenomenal adverse effects on the agrarian sector, which happens to be the main source of livelihood for rural dwellers. The book would therefore have provided a more holistic picture

of the linkages between climate change and sustainable development if the impact of climate change on rural areas was examined.

Another shortfall of the book is the lack of comparative analysis of climate change policy between Africa and Asia. Although there are deep-seated spatial variations between Africa and Asia, the impact of climate change on urbanisation is mirrored across the two regions. It is worth noting that climate change is a worldwide challenge and this requires a concerted global approach in tackling it. The book however examines climate change and urbanisation from the African and Asian perspectives in isolation. This effectively curtails any effort at cross-regional comparative analysis of policies and strategies which are being formulated to adopt and mitigate the impact of climate change on urban centres. Significantly, such comparative evaluation of policies and strategies remains an integral approach towards holistically tackling climate change (Inglis, 2008), something which the book overlooks.

Urban centres in emerging economies are the main emitters of greenhouse gases. Therefore, the fact that Africa and Asia are the fastest urbanising regions has major implication for the climate change discourse. Despite this, the relationship between climate change and sustainable urban development is largely under explored in developing countries. In this regard, the book deserves commendation for defining a robust conceptual guide which could provide a framework for mainstreaming strategies for adapting and mitigating climate change in two of the fastest urbanising regions in the world. The shortfalls of the book are therefore trivial considering the breadth of issues it covers and the depth of insight it brings to the climate change and sustainable urban development discourse in Africa and Asia. I unreservedly recommend this book to academics, students and development policymakers who have interest in the planning and management of the built environment.

Reference

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