Preface

Harry T. Dimitriou and Ralph Gakenheimer

The 20 chapters of this book are intended to provide a very broad set of perspectives on the plight and possibilities of urban transport in the developing world. The contributors include individuals of different disciplines, sectors and regions of interest. What we all share is a deep concern for the perilous and worsening conditions of most cities in the developing world, as well as our academic and professional commitment to find means of addressing the problems. Accordingly, these chapters offer different understandings of the problems and different vantages points from which to probe policy, planning and management responses that are effective. While the chapters propose many different tracks for addressing these problems they also, however, emerge with some widely held agreement about the needs of transport in cities of the developing world at this point in their troubled history.

The most general directions emerging from the chapters of this book might be the following. The greatest need of urban transport in the developing world is for improved public decision-making in urban transport policy making, planning and management, supported by a commensurate investment in capacity-building to facilitate this. The performance of these tasks, involving public bodies, private investors and non-governmental organizations, confronts demands made on them that are growing at a rate that is generally much faster than their rate of capability in these capacities.

The leading requirements for more effective and robust responses are greater holistic thinking and the breaking down of silo perspectives and practices, plus the development of more context-sensitive responses that better cope with the risks and complexities of the uncertain times. These conclusions are premised on the understanding that the local and global environments are imperilled worldwide by increasing motor vehicle ownership and use in urban areas. The negative implications of these developments are increasingly (albeit belatedly) recognized as causing perilous environmental conditions and increasing claims on social equity, especially in lower-income cities, at the same time as providing an essential driving force toward economic growth and the potentially positive improvement of welfare.

All this takes place under increased information availability about urban transport technological capabilities and related systems planning.
and management; bioenvironmental management; and economic and social priorities and their competing and conflicting demands. As a result, there is an increasingly urgent demand for improved and transparent decision-making on the one hand, and increasing possibilities for attaining it on the other hand, with the contributors to this book sadly concluding that this progress is generally sorely lagging, given the pace and nature of developments to date.

We, however, see a significant improvement of these circumstances being achieved by the incorporation of the concept of sustainability into institutional development and governance, as a fourth pillar of the sustainability vision, to complement the economic, social and environmental dimensions of the concept. This position is argued on the basis that sustainable visions of all kinds can only be delivered by sustainable institutions: such agencies (both global and local) provide the glue to the interrelationships that exist among the various dimensions of the visions in that they can offer the sustained governance, guidance, enablement and regulations necessary for the delivery of such holistic visions.

Dimitriou (in Chapter 2) sets out the underlying premise of the entire book, namely, that urban transport policy and planning challenges in the developing world differ significantly from those found in urban areas of the developed world, as do the resources to address the movement needs of such cities. He also argues that one of the major challenges ahead for urban transport policy-making, planning and management worldwide, but especially in the developing world, is that the politics of defining sustainable development has changed in the closing years of the first decade of the twenty-first century. Citing different sources, he explains that it has altered from a dialogue that has led to a 'loosening-up' of the concept that was instrumental in achieving global endorsement, to a discourse where the elaboration of the concept increasingly requires attempts to make it more context-sensitive. This more open dialogue, he concludes, has generated a great deal of friction (and accusations of greenwash) as prevailing traditions in urban transport policy analysis and planning fail to take seriously the way in which local cultural and political variables can hinder the resolution of urban transport policy and planning controversies. This is a conclusion also shared by Godard, Vasconcellos and Zegras elsewhere in the book.

Gakenheimer (in Chapter 3) asserts that land use patterns in many cities of the developing world are likely to be more a consequence of transport infrastructure than a considered co-determinant with them, or a means of leading them. This is a position especially shared by Kenworthy, Dotson and Allport elsewhere in the book. Gakenheimer argues that creating infrastructure networks as strategic agents of change is more feasible than
Urban transport in the developing world

changing land use patterns. All the same, he points out, we should not give up on the possibilities of meaningful ways of directing land development. It is now revealed that the developing countries sometimes have special capabilities for leadership in the deployment of significant new strategies, as recently evident in the Latin American leadership in bus rapid transit (BRT) and driving bans. Many of the cities are now newly undertaking committed global warming, environmental and congestion policies. New vantage points on land use control are not beyond possibility. To this end he advocates a framework that incorporates national urban policy guidance to help cities study, finance and manage their transport needs better, given that very few such cities have sufficient resources for these purposes. National technical leadership is essential since special high-capacity transit is now within reach of medium-sized cities, though they lack technical staff able to manage planning and implementation of new possibilities for system integration and new modes, which in turn stimulate possibilities for guidance of land use if technique and commitment can be brought to bear.

Kenworthy (in Chapter 4) sees the identification of generic patterns, problems and underlying causes of motorization and their impact on urban development as a critical first strategic step in finding solutions to the problems of transport in developing cities. He reinforces earlier expressed concerns about the adequacy and transparency of systems of governance, institutions and ‘communities of interest’ typically found in low-income cities, which are needed to deliver effective city and urban transport planning. He cites these challenges as being especially problematic in light of the highly troubling set of data he presents, which reveals the dramatic march of motorization in such settlements since 1995. In common with many other contributors to the book, Kenworthy concludes that it is imperative that much more effective ways be found to halt this march of motorization if policy and planning responses are to avoid their devastating impacts on the functionality of the transport systems of lower-income cities, and every other facet of urban life.

Schäfer (in Chapter 5) presents the prospect of reducing energy use and greenhouse gas (GHG) emissions through the integration of advanced energy-saving technologies, among a number of options for tackling the energy challenges associated with urban transport in the developing world. He acknowledges that such measures for reducing vehicle fuel consumption come at an economic cost and that this will inevitably present policy tensions. He sees the dramatic growth of the urban building stock as potentially offering new opportunities for the implementation of these measures, if coordinated in a manner that jointly seeks to achieve a significant reduction in energy use for urban transport and related GHG emissions.
emissions. This potential, like many other advocated initiatives, very much relies however on an enhanced institutional capability to deliver such outcomes, which reinforces the importance of the need for accompanying institutional development.

Ernst (in Chapter 6) raises two important reservations regarding ‘technological fixes’ to urban transport challenges. The first is that we typically suffer from not being able to predict environmental impacts accurately and quickly enough to avoid serious ramifications. The second lies in the need to recognize the strength of the global corporate marketing forces behind the focus on automotive technology, reinforced by other supporting technologies that lead to a path-dependency in urban traffic management which keeps infrastructure focused on motor cars. He argues for a holistic perspective on the need to reduce the negative environmental and other impacts of the motor car. The justification of such action becomes transparent, he argues, only when a holistic perspective of the need to reduce the negative environmental and other impacts of the motor car is taken.

Drawing from the experiences of Nairobi in Kenya, Sclar and Touber (in Chapter 7) look to a hopeful future where they claim that the larger public service, governance and land use challenges of the entire metropolitan region are now being seriously addressed. They point out that while existing stakeholders cannot create a new system if left to their own resources, if these stakeholders are excluded from a role in planning the new system, they possess enough power to stymie any forward progress.

Pendakur (in Chapter 8) asserts that the critical challenge to effectively addressing pedestrian and other non-motorized transport (NMT) needs in cities of the developing world requires a new declaration of policy and planning guidelines that offer real leadership by emphasizing the important paradigm shift required from current urban transport planning methods to an approach that includes the new focus on NMT and sustainable development. Pendakur simultaneously advocates contributing to goals of sustainable development by minimizing the need for motorized urban movement; a policy advocated by all contributors to this book.

Godard (in Chapter 9) emphasizes the need for the enhancement of public transport and non-motorized movement facilities to take into account the issue of affordability, at both the individual and the collective levels. He concludes, however, that the extent to which the spiral of current trends of unsustainable mobility continues, rather than sustainable outcomes, is ultimately a choice of governance (and not transport mode technology). He focuses in particular on the difficulties and misunderstandings raised by the tensions between the use of the terms ‘mobility’ and ‘accessibility’ by transport specialists, and between ‘poverty’ and ‘desperation’ by economists and planners (including development planners),
suggesting that the lack of clarity, the omission of values and simplistic assumptions often employed in the use of these terms is part of the urban transport problem.

Dotson (in Chapter 10) alludes to a whole set of what he considers are prerequisites for successful sustainable urban transport policy-making and planning in the developing world. These range from the need to ensure that the amount of finance likely to be available on a sustainable basis is taken into account in developing capital works programmes and operating budgets, to responding appropriately to rapid urbanization and motorization trends, and road safety needs. Dotson sees the most important of the institutional capacity-building responses to be the training of sufficient professional staff at all levels in urban development and transport (in both the public and private sectors), as well as political leaders and policymakers, to help make more informed decisions.

Replogle (in Chapter 11) concludes that there is an increasing global focus on reducing greenhouse gas emissions to deal with climate change, and that the role of urban transport in this is seen as critical. He applauds environmental evaluation having moved into more routine use as an integral part of urban infrastructure planning. Replogle sees the growing role of private capital in urban transport system development and service delivery as posing an additional challenge worldwide, as most environmental review laws focus more on actions by public agencies rather than the private sector. While public–private partnerships (PPPs) could create new opportunities to focus entrepreneurial attention on the environmental performance of transport, Replogle considers that these opportunities are often lost if public agencies fail to press the private sector on such matters.

Vasconcellos (in Chapter 12) asserts that the international experience accumulated over the last decades has proved that a supposedly ‘apolitical’ approach to urban transport evaluation, backed by limited technical appraisals, has yielded very negative consequences from a variety of perspectives, especially those of the social, equity and environmental dimensions of development. Such audits, he argues, must escape the ‘shackles’ of the economic rationalist approach to equity as criticized by Godard and Hook elsewhere in this book, that places a high premium on the ‘get what you pay for’ commandment instead of considering the mobility needs of urban inhabitants, regardless of any natural or inherited social and economic handicap.

Hook (in Chapter 13) argues that the ability of developing-country governments to make intelligent urban transport choices ultimately depends not on the lending criteria of the international development banks, but rather on the ability of the governments in question to build a transparent
and democratic decision-making process that takes control of the information about their own urban transport systems with a view to generating and controlling the traffic demand models necessary to appraise the merits and demerits of various alternatives, and ultimately to negotiating a better deal for the public. He sees current economic appraisal practice as being at a likely transitional stage between when urban transport investments were made with no careful consideration of their economic impacts, to a time when sector user-fees will be optimized through point- and time-specific congestion charging, and when private mechanisms for financing urban transport investments will predominate, raising accountability and transparency issues.

Aeron-Thomas and Jacobs (in Chapter 14) assert that while the international community has recently awakened to the national epidemic of road traffic injury, it has largely overlooked the critical urban situation. They also criticize current international road safety practice for placing too great an emphasis on motor vehicle occupant safety, and paying inadequate attention to non-motorized movement, especially pedestrians and cyclists. Aeron-Thomas and Jacobs explain these outcomes on the basis that international efforts at promoting road safety have to date been concentrated at higher levels (of government) with the result that their recommendations have focused on countrywide approaches, with the side-effect of overlooking what could or should be achieved within cities. They also argue that despite the laudable intentions of the work of these international road safety organizations, many of their promoted interventions remain centred on individual behaviour which is quite different from the systems approach successfully advocated by countries such as Sweden and the Netherlands, which place more responsibility on those managing the road network. These road safety interventions are, furthermore, primarily seen to benefit motor vehicle victims rather than pedestrians and cyclists.

Wright (in Chapter 15) cautions that as promising as BRT appears to be for cities of the developing world, its case should not be overstated. He warns against it becoming a panacea for all transport ills, and argues that BRT is not always the right solution for all urban situations. Wright warns that in the absence of a non-motorized transport strategy, disincentives to private vehicle use and complementary land use policies, BRT will likely not achieve its full potential. However, for the few political leaders who take the chance to redefine their cities with full BRT, he claims that the rewards are clear: namely that without such a network, many developing-nation cities will likely continue their march towards motor car dependency and intractable inequalities.

Allport (in Chapter 16) argues that metros can be made to catalyse city development that is accessible and that has a compact physical and
environmental footprint. Notwithstanding this, he points out that the operationalization of this ‘in-principle’ case is fraught with difficulty, as effective decision-making in metro projects requires a deep knowledge of ‘what works’ in light of the sustainable cities vision and empirical research to date. Allport claims that existing practice has, unfortunately, often been shown to be far removed from these requirements. This is because metro projects too often are the result of poor planning seeking to meet political imperatives; attention to such projects too easily focuses on detail without first undertaking strategic investigations; attention too often concentrates on the ‘BRT versus metro’ issue when neither is developed adequately as a realistic implementable option; and too little attention is given to creating sustainable operating businesses. On account of these and other factors, Allport argues that a major change to existing practice is thus critical. To this end he advocates the introduction of strong requirements to enforce accountability on key participants in metro project development, accompanied by major changes in four other areas of existing practice.

Cervero and Golub (in Chapter 17) argue that the wide-ranging set of informal transport systems that exist throughout many cities in the developing world play an invaluable role in their overall transport systems. Informal public transport modes are a product of a combination of market forces and deprivation, and they often serve areas left unserved or poorly served by formal transport carriers. They can be the only bona fide means of mobility available to the poor. Cervero and Golub claim that effective programmes of franchises, licensing and monitoring can yield highly efficient and flexible services.

Mahendra (in Chapter 18) concludes that there are useful lessons for adopting a more sophisticated travel demand management policy, like congestion pricing in cities of the developing world. Drawing from a study of four Latin American cities, she claims that there are three aspects that stand out as important preconditions: widespread public information campaigns regarding the environmental and health risks of traffic congestion and the resulting air pollution; the implementation of complementary measures, such as the enhancement of public transport and an increase in parking charges; and increased discussion and awareness among experts and politicians about congestion pricing measures, with systematic modelling and analysis of alternative policies. She warns that congestion pricing proposals will draw opposition as long as there are insufficient alternatives to the use of private motorized vehicles; a view echoed by Kenworthy. She is, however, sympathetic to congestion pricing being implemented as part of a package of other measures but (like Dotson) acknowledges that the institutional changes required to make this happen are complex.
Zegras (in Chapter 19) argues that policy-makers and the broader public need to be involved in the ultimate derivation of the relevant measures of sustainable urban mobility, and that only then will we truly begin the 'mainstreaming' of this concept. The normative sustainability mobility framework advocated by Zegras is intended to facilitate making relative judgments about policy options, and is based on the premise that a more sustainable urban mobility provides more welfare (accessibility) per unit of throughput (mobility). He argues that from the ‘strong sustainability’ perspective, the throughput metric might build on the ‘ecological footprint’ approach, while in the ‘weak sustainability’ tradition, the throughput metric might look to transport ‘full-cost’ analysis. This proposed operational definition of sustainable urban mobility, he claims, provides a straightforward way of conceptualizing sustainable mobility in urban areas.

In Chapter 20 the editors compose a sense of the new directions and intensified efforts that are generated by these previous 19 chapters. They conclude that the new globalism with participation of new intercommunication and new strong actors within the developing world (Brazil, Russia, India, China) is moving toward a collaborative perspective on global warming and environment through more holistic thinking about urban transport than we have had before, partly sustained by new electronic technologies. The new thinking entails new roles for the socially responsible use of motor vehicles and expanded roles for public transport. The new perspective recognizes the desperate need for continued and sustained growth of economic development with an increased deliberate focus on poverty, if that problem is to be reduced. Perhaps, most of all actionable needs within the scope of this book, the need is not so much for improved techniques of design and planning as it is for improved decision-making and project implementation, and creating a capability of garnering agreement on innovations and concrete actions rather than yielding to continual indecision; all this by creating institutionally sustainable capability for planning and acting on urban transport.