

Urbanisation, Vulnerability and Sustainability in Asian Cities: A Transport Perspective

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As the global population now exceeds 7 billion, the importance of constructing resilient and sustainable urban areas becomes a central concern of societies, as these mega cities (over 10 million) will provide homes for 70 per cent of the population (2050). City living has the potential to accommodate this population, as it makes the most efficient use of available and through higher densities and it allows for the benefits of economies of scale and scope through providing jobs and other opportunities (Glaeser, 2011). It also has the potential for more efficient use of energy resources and for reducing the total amount of travel, at least within the city (Banister, 2005). This means that the city is likely to provide the most sustainable urban form to accommodate the increases in population, but it also needs good governance, with a powerful vision of its future development, financing, implementation and enforcement, so that the best practices can be established, reducing inequalities, gridlock and urban sprawl. Such a strategy is even more important now, as it seems likely that the levels of global warming will exceed the 2C target set by IPCC (2007). This means that decisions need to be taken now that will reduce the vulnerability and risks facing cities from sea level rises, storm surges, flooding, and greater intensity of rain, as well as from higher temperatures. The transport system is doubly vulnerable as there are potential threats from high oil prices (over \$100 a barrel), and from oil shortages due to the increasing demand and little opportunity for substitution on the scale required.

This paper addresses some of these issues from a land use and transport perspective through outlining the key issues relating to urbanisation and sustainability, drawing on the linkages between population, inward migration, the changing economy and transport. Examples are taken from the European situation and then the focus then switches to China, where the scale and speed of urbanisation is of a new order of magnitude. Here

proposals are made on the possibilities for a range of new types of urban forms appropriate for mega city regions (over 20 million). The issue of vulnerability is then raised and the potential risks from climate change outlined, suggesting that Asian port cities are particularly at risk in terms of exposed population. Finally, some comparisons are drawn and comments of future priorities made.