

# Urban-Rural Systems in Asia: A Research Agenda



Stephen Cairns

These brief notes outline a research agenda for hybrid urban-rural regions in Asia. It emerges from work being undertaken by the Urban-Rural Systems team at the ETH Zürich's Future Cities Laboratory in Singapore.

All cities have their hinterlands of one kind or another. We are interested in the hinterlands of cities surrounded by tropical, wet-rice agriculture. Such hinterlands are typical of many parts of Asia, and they have very specific ecological, economic and demographic characteristics, which mean they interact with nearby urban centres in distinctive ways. Most notably, wet-rice agriculture supports relatively high population densities with fine-grained plot patterns. When urbanisation processes interact with such areas, the rural does not immediately give way to the urban and instead a hybrid rural-urban typology emerges. Sometimes dubbed *desakota* landscapes (Indonesian for 'village' and 'city'), they are neither strictly urban nor rural in character, but a mixture of both.

Scholars have suggested this is a distinctly Asian settlement type. And, in sheer quantitative terms such urban-rural regions already represent one of the world's dominant forms of settlement. Despite this, we have little up-to-date information on the extent of this settlement type in Asia or its current characteristics. Furthermore, it is unclear what planning approaches, urban design strategies, and material and technological interventions might ameliorate the most damaging, and enhance the positive characteristics about such settlement types in the future. Even more speculatively, what might such regions suggest for alternative visions of settlement elsewhere? Could it be that contemporary urban-rural regions of Asia contain the seeds for sustainable pathways to urbanisation? Could such hybrid regions offer insights into ameliorating the interconnected threats of urban population growth, the deteriorating quality of urban environments, and declining productivity of agricultural regions in general?

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S. Cairns (✉)

Professor, Future Cities Laboratories, ETH Zurich, Zürich, Switzerland  
e-mail: cairns@arch.ethz.ch

To answer these questions, it is necessary to look more closely at the idea of urbanisation. The current conceptual vocabulary and theoretical framework for understanding the relationship between urbanisation and urban development are predominantly drawn from much older European and North American experiences. They tend to emphasize a city-centric view of urbanisation. Demographer Kingsley Davis (1965) defined urbanisation as ‘the proportion of the total population concentrated in urban settlements, or else the rise in this proportion’ (Davis 1965, p. 41). The OECD follows Davis’ early definition, describing it as an ‘increase in the proportion of a population living in urban areas’, and the ‘process by which a large number of people becomes permanently concentrated in relatively small areas, forming cities’ (OECD 2012). More sociological definitions de-emphasise the spatial aspect of urbanisation, describing it as ‘a social process, which refers to the changes of behaviour and social relationships that occur in social dimensions as a result of people living in towns and cities’ (Bhatta 2010).

The city-centric view of urbanisation was given renewed urgency in the early years of the twenty-first century. The widely reported urbanisation ‘tipping point’ of 2007—when the world’s population shifted statistically from being predominantly rural to predominantly urban—was accompanied by startling evidence of accelerated forms of urbanisation taking place in Africa and Asia. Furthermore, the UN predicted that these were the regions where most urban growth would be focussed in the coming century. This heralded a structural and long-term shift in urban development focus. The flurry of indepth newspaper reports, special issue academic journals, substantial books and prestigious exhibitions confirmed it. This had the effect of giving greater urgency and drama to the older, academic definitions of urbanisation. Now urbanisation was cast as ‘a world-historic shift in human habitat’ (Breman 2006, p. 141), ‘the biggest migration in human history’ (Miller 2012, p. 32), and ‘the final buildout of humanity’ (Davis 2006, p. 2).

The renewed urgency around urbanisation focused attention on the threats that it posed. Now urbanisation connoted rapid growth of megacities and their associated ills, and a hollowing out of the countryside and productive landscapes through mass rural-urban migration. Growing urban populations threatened to overwhelm capacities of city infrastructure and services to adequately support them, leading to a host of urban problems such as slums, social inequality, congestion, flooding, ill-health, pollution, social unrest and heightened vulnerability (UN 2014). Urbanisation also saw the enlarging of physical and ecological footprints of cities (Angel et al. 2005, 2011), which threatened to consume an increasing and unsustainable share of finite natural resources. Urbanisation also threatened productivity of agricultural land, reducing the capacity of hinterlands to support growing urban populations (Bruinsma 2009; Jiang et al. 2015).

The privileging of a narrow view of the city in urbanisation discussion did not go unchallenged. Ongoing research on ‘urban bias’ (Lipton 1977; Henderson 2010; Jedwab et al. 2014), and recent work on ‘planetary urbanisation’ (Brenner and Schmid 2012, 2014) have articulated important alternatives to the normative view. Nonetheless, the new enthusiasm for urbanisation overwhelmingly privileged the city. It was a privilege that was built primarily on western experiences of

urbanisation in the nineteenth and twentieth centuries. And, while it did not command the same popular or academic attention, the countryside retained its long-standing, residualised place in a normative urban-rural dichotomy (UN DESA 2014, p. 4). Human migration, in this dichotomised framework, was regarded as a permanent, one-way, rural-to-urban movement.

For all of its richness and diversity, a theory of urban development grounded in western experiences of urbanisation necessarily remains inadequate for Asia. Hybrid urban-rural regions in Asia have a number of characteristics that demand alternatives to established concepts such as density, agglomeration and sprawl, for example. First, they support large populations at relatively high densities (1000+ people/km<sup>2</sup>), have extended physical footprints (over 10,000 km<sup>2</sup>), and are characterised by hybrid economies, and land use patterns featuring agricultural and non-agricultural activities. Second, they are typologically distinctive in comparison to cities and urban regions in Europe or North America. In part, this is due to the fluctuating character of Asian urban-rural regions resulting from the persistence of an agricultural economy, with its seasonal growing cycles and shifting (shuttling) labour demands, supporting urban-rural linkages and gradients, as well as uneven investment patterns resulting from relative proximity to large cities and access to international transport networks (Friedman 2007). Finally, many such urban-rural regions have developed through highly localised planning and design initiatives, usually with little interaction with formal city or national government planning systems (Douglass 1995).

Hybrid, urban-rural regions in Asia not only challenge normative conceptions of urbanisation. They also contain seeds of their own viable development. Urban-rural regions, through their integration with networks of material and immaterial flows, do not necessarily forgo the benefits of density, clustering, knowledge exchange and specialisation, or the creative capital and 'relational assets' (Dunning 2003; Krätke 2012, 3) that were historically regarded as exclusively effects of city living. It follows that policy, planning and design responses to urbanisation in normative terms are inadequate. Empirical conditions in and around Asian cities today challenge us to understand the dynamics of urbanisation in more nuanced ways. This involves at least three research tasks. The first is descriptive, and concerns the spatial extent, rates of change, socio-economic character and ecological systems in Asian urban-rural regions. The second is more theoretical, focusing on the demographic, economic and ecological interdependencies of such regions. Finally, as architects and urban planners, we are interested in a range of urban design approaches and processes, typological models and technologies suited to development of urban-rural regions in Asia.

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