4 China’s cities

Reflecting on the last 25 years

Dean Forbes

China’s urbanisation has accelerated over the last few decades. While 26 per cent of the population lived in cities in 1990, this had increased to 47 per cent in 2010 (UN-Habitat 2010: 254). 636 million people, or almost one in five of the world’s total urban residents (18 per cent), currently live in a Chinese town or city (UN-Habitat 2010: 253). China’s urban transformation has been remarkable, both for the pace at which it has occurred and for the sheer scale of population re-distribution involved. Anyone with an interest in fast-changing contemporary cities, or what cities might be like in the future, would be well advised to understand China’s urban revolution. This chapter draws on observations of Chinese cities over the past 25 years to focus attention on the challenge for China in reconciling economic growth, liveability and sustainability in the largest Chinese cities.

Contemporary Chinese cities

Beijing, Shanghai and Hong Kong are the three most globally prominent large Chinese cities. A recent volume on Planning Asian Cities (Hamnett and Forbes 2011a) included chapters on Beijing (Gu and Cook 2011), Shanghai (Walcott 2011) and Hong Kong (Yeh 2011), providing an overview of their planning histories and the most pressing current challenges.

Each of the three Chinese cities is very large by world standards. Two are megacities with more than 10 million inhabitants. Beijing has 12.4 million, and Shanghai 16.6 million. Hong Kong has a modest 7.1 million. There is considerable variation in the estimated population of very large cities, primarily as a result of the various definitions involved. The numbers cited above are standardised estimates published by the United Nations Human Settlements Programme (UN-Habitat 2010).

Each is recognised as a world city. Beijing’s prominence is as a seat of government. Shanghai and Hong Kong depend on their economic functions, increasingly built around a range of producer services. Shanghai and Hong Kong both lay claim to be the ‘head of the dragon’, Shanghai because of its location in the Yangtze River Delta and Hong Kong due to its position in the Pearl River Delta, both major concentrations of economic activity.
On the Mastercard World Centers of Commerce ranking Hong Kong is 6th, Shanghai 24th and Beijing 57th. It was once the case that world city status grew organically as a result of the strength of the nation’s economy. London, New York and Tokyo were the dominant world cities.

Cities now adopt explicit strategies to strengthen services economies and enhance global reputations. This means, for instance, building transport infrastructure, such as major airports, with fast road and rail connections to the city centre. The Norman Foster designed Hong Kong International Airport is ranked in 3rd place by Skytrack in their list of the world’s top 10 airports, and Beijing Capital Airport is ranked 8th. While not listed, the new Pudong International Airport and the re-built Hong Qiao International Airport are designed to facilitate Shanghai’s growth as a global service economy.

Investments have also sought to build the symbolic capital of these cities. The 2008 Beijing Olympics is one example; the Shanghai World Expo 2010 is another. Both were undertaken with investment in infrastructure at a scale that very few countries could match, except, possibly, an oil-rich Gulf state. Hong Kong’s development of the waterfront of the West Kowloon Cultural District is representative of the city’s desire to enhance its reputation as a cultural and entertainment centre. It is progressing at a glacial pace, compared with the Shanghai and Beijing initiatives.

The development of these world city features has brought about significant changes to the shape of China’s cities. The strategies have encouraged growth in economic terms, and in population. Consequently cities attract foreign investment and a disproportionate share of infrastructure investment (Woetzel et al. 2009: 27).

Incomes are high. Hong Kong’s per capita GDP is US$29,991, Shanghai US$11,464 and Beijing US$10,137. This contrasts strikingly with the per capita GDP of China as a whole of around $4,300, or with comparable cities such as Mumbai (US$2,184) and Jakarta (US$7,636).

Many people want to live in Shanghai, or Beijing or Hong Kong. New university graduates want to move to these cities because it is where the exciting jobs and affluent lifestyles are concentrated. As a result, Shanghai permits residency only to those with sufficient skills. Some 28 per cent of the city’s labour force has a college education (Woetzel et al. 2009: 26).

To cope with the influx of new knowledge workers and to strengthen the services economy, these cities have focused on the building of infrastructure in the central business districts. This has pushed people into medium- and high-density developments in suburban areas and in satellite cities, creating new poly nucleated urban forms. During a recent visit I was driven around Shanghai’s northeastern edge on a journey from the University of Shanghai for Science and Technology to Pudong Airport. I was astounded by the sight of the endless blocks of high-rise housing, and couldn’t help but wonder how residents adapt to what surely must be an entirely new lifestyle.
China's cities

Tianjin, the last 25 years

Before going any further, I will step back in time, to February 1986. It was 25 years ago, and my first visit to China (Wilmoth and Forbes 1988; Forbes and Wilmoth 1990).

A colleague and I landed at Beijing Airport. Snow covered the ground, and there was light fog. We declared the two watermelons we were carrying as gifts to a senior figure in the Chinese government and the customs officers were satisfied they posed no harm to China. A car picked us up and drove down the narrow road to the city. The road was bordered on each side by trees, with the bottom metre of the trunk painted white. After a brief stop in Beijing to hand over the watermelons we headed for Tianjin as guests of the Tianjin Scientific and Technical Exchange Centre with Foreign Countries (TSTEC).

The weather was bitterly cold, and the city appeared to be struggling. Tianjin had a population in 1986 of 3.4 million. The Urban Planning Bureau had capped the city’s growth, deciding that the population would maximise at around 3.8 million in 2000. China’s urban policy at the time focused on the growth of the medium-sized cities and small towns.

It was an industrial city specialising in machine building, chemicals and textiles. Tianjin was located in a harsh environment that was windy, sinking due to the loss of groundwater, and lacking sufficient fresh water. It was still recovering from the impact of the Tangshan earthquake 10 years earlier, which killed 30,000 Tianjin residents and destroyed significant parts of the city. Along with the 2011 earthquake and tsunami in eastern Japan, they were reminders of the risks facing the large cities of the eastern Pacific rim.

In the 1980s Tianjin had increased its efforts to improve the urban environment. As a major industrial city Tianjin’s industries emitted significant plumes of smoke, known locally as the Yellow, Black, and White Dragons. The air was gritty to breathe. Effort was underway to reduce industry emissions of airborne pollutants. Residents had depended on coal for heating and cooking. Natural gas was introduced the following year, and began to reduce household dependence on coal.

Tianjin had the good fortune of being nominated in 1984 as one of the 14 coastal cities chosen to lead China’s new ‘open door’ strategy. The list was shortened to four the following year, but Tianjin was one of them (the others were Shanghai, Guangzhou and Dalian). The city was beginning to build upon its industrial past and re-invent itself as a science and technology city, focused on the Tianjin Economic-Technological Development Area (TEDA), which had been launched in 1984.

I first returned to Tianjin in 1998, and have visited the city at least once a year since. It is moving forward and is now considerably larger and no longer a struggling industrial centre. Tianjin’s population in 2010 was 7.9 million, more than double the planners’ target for 2000. It has a vibrant commercial centre and 20 five-star hotels. The city’s greening strategies, commenced in the 1980s, have been effective, particularly along the banks of the major river running through the city, the Haihe.
The Beijing–Tianjin Intercity Express Railway connects the two cities at 350 km/hour in just 30 minutes. And the Tianjin Binhai International Airport is a major domestic air terminal that also services international flights. In 1986 there were just three incoming flights a day.

It has strong universities, such as Nankai University and its neighbour, Tianjin University, and the Tianjin Medical University. They have built global reputations and links, and enhanced Tianjin’s credibility as an education centre. A partnership between Flinders University and Nankai University was developed in the late 1990s, leading to two substantial, long-standing Masters programmes with Nankai University that are offered across the country. The two programmes have over 2,000 graduates spread throughout China, reflecting Nankai’s status as a national university.

Tianjin has been moving its smoke-stack industries to the Binhai New Area, a merger of three former coastal districts, including the TEDA region, in the east of the municipality on the Bohai Gulf. Thus far 285 ‘Fortune 500’ companies have invested in the area. This includes an assembly plant for the Airbus A320.

The Sino–Singaporean Tianjin Eco-city is also located close to the centre of the Binhai New Area. The 30 km² development should be fully developed within the next 10–15 years, and is aiming at a population of 350,000. It is expected that another Italian designed eco-city will be constructed in Tangshan, adjacent to Tianjin.

Binhai New Area is intended to leverage the economies of agglomeration and scale in the new location to reduce the environmental footprint of industry. The region has long suffered from water shortages, pushing the Tianjin government to invest in a major desalination and power plant in 2005. A second stage expansion has been under way since 2010. The idea is to build a cluster of industries and expertise around desalination, leading to the production of fresh water (400,000 tons per day), power and sea salt, as well as waste re-use, and land conservation (Woetzel 2011: 4).

China’s cities, the next 25 years

China’s urban population is projected to reach 851 million in 2025, and well over one billion (1,037 million to be precise) in 2050. It could be a decade or two earlier, according to some projections. Three in every four Chinese will live in a town or city (UN-Habitat 2010; UN 2010). By 2025, 43 of the world’s 100 largest cities will be in China. Five will be mega cities: Shanghai (20 million), Beijing (15 million), Chongqing (11.1 million), Shenzhen (11.1 million) and Guangzhou (11 million). Three others will be very close: Tianjin (9.7 million), Wuhan (9.3 million) and Hong Kong (eight million).

There are many challenges confronting China’s large cities but I will address two broad dimensions essential to building better, sustainable cities in China. The first is the strategy and planning framework for managing major environmental risks. The second is how to make the cities better places in which to live and work and help to enhance their resilience.
The Economist Intelligence Unit (2011) has released an Asian Green City Index spanning 22 cities measured against eight key environmental dimensions. On an overall ranking Hong Kong ranked above average (level 2 out of 5), and the other Chinese cities listed, Beijing, Shanghai, Guangzhou, Nanjing and Wuhan, were rated average (level 3). Tianjin, unfortunately, was not included. Across the whole sample, Singapore was the only level 1 city, and Karachi the only ranked at level 5.

The scores on the individual dimensions are summarised in Table 4.1. Hong Kong had the better ratings, and Shanghai and Beijing were similar, with the latter a little ahead.

In the lead-up to the Beijing Olympics the media reported that Beijing had the worst air quality of any city in the world. Anyone walking on the streets of Beijing when the sand blows in from the Gobi Desert would probably agree. On the Index, Beijing comes out poorly, ranked as below average in air quality. However, improvements have been made, particularly in trying to reduce the impact of motor vehicles with measures such as the massive replacement of polluting taxis and buses, and a ‘cash for clunkers’ scheme similar to a proposal put forward then withdrawn by the Australian government.

In terms of environmental governance, Hong Kong scored 2, and Beijing and Shanghai each 3. China’s large cities have strong governance structures. The cities and their satellites come under a single authority, and in the case of Beijing, Shanghai, Tianjin and Chonqing they have provincial status. Hong Kong, as a Special Administrative Region, is in a similar position. A sound unitary structure means that the execution of environmental policies and strategies has the potential to be more effective than in cities with fragmented governance structures such as Jakarta and Manila; more effective also than the fragmented planning arrangements for the major Australian cities, Brisbane excepted.

Table 4.1  Asian Green City Index: Beijing, Shanghai, Hong Kong

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Beijing</th>
<th>Shanghai</th>
<th>Hong Kong</th>
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<tr>
<td>Energy and CO₂</td>
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<td>Transport</td>
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<tr>
<td>Land use and buildings</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Waste</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Sanitation</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Environmental governance</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Based on data in Economist Intelligence Unit 2011: 11.

Notes
1 Well above average.
2 Above average.
3 Average.
4 Below average.
5 Well below average.
There are several encouraging environmental signs for these cities. The Shanghai World Expo 2010 had a clear urban environmental theme: ‘Better City, Better Life’. Several major pavilions demonstrated the new technology for reducing the environmental impact of urban living. It is also apparent that the Beijing Environmental Protection Bureau has been strengthened since the 2008 Olympics. There appears a positive connection between a city’s intentional strategies for enhancing its world city reputation, the importance it gives to globally significant cultural events and its readiness to support the adoption of explicit strategies for enhancing the urban environment.

Hong Kong excluded, the weakness is the opportunity for citizen involvement in environmental strategies. This leads into my next point.

China’s large cities are becoming more global, wealthier and increasingly well managed. But are they becoming more liveable cities? On the Economist Intelligence Unit’s 2007 liveability index survey of 215 cities worldwide Hong Kong ranked 70th and Shanghai 100th (UN-Habitat 2010: 177). No Chinese cities are in the 2010 Mercer ranking of the quality of city life in the top 50 cities. The only ranked Asian cities are Singapore (28), Tokyo (40), Kobe and Yokohama, both equal 41st. Adelaide, for comparison, was ranked 32nd.

There has been a steady and significant improvement in the liveability of Chinese cities evident to any regular visitor to China, and the cities are moving up the rankings. However, two questions need to be posed. First, are the new high-rise housing estates characteristic of China’s large cities functioning as desirable, liveable spaces? Second, will these kinds of urban formations increase the resilience of the city and its residents?

The evidence is mixed, at best. John Friedman (2010: 149), the eminent urban planner, believes that:

> the art of place-making has not informed planners … in the newly industrialising global regions of Asia…. Their principal preoccupation has been with the branding of cities and the advanced infrastructure required by global capital. In the process, millions of ordinary folks have been displaced and their neighbourhoods erased, as speed, movement and power have been valued more than the fragile social infrastructure of place-based communities.

As an example of displacement Friedmann (2010: 157) cites the destruction of the houses in the hutong, the alleyways of Beijing, displacing up to half a million people between 1998 and 2001. An acceleration of the process occurred prior to the Beijing Olympics. Residents were resettled in the outer suburbs beyond the fourth ring road. Neighbourhood formation in the new residential zones is the responsibility of the shequ residents’ committees, of which there are over 80,000 throughout China. He describes the process as ‘still undergoing an experimental phase’ (Friedmann 2010: 160).

In addition, there is little or no serious community involvement in urban planning in China, even when it involves issues of day-to-day significance such as
the urban environment. While the shequ committees can contribute to place-making, through neighbourhood development, it would be more effective if that also involved the community and community organisations. The resilience of cities in the face of environmental pressures, or environmental disasters, depends crucially on community organisation and engagement as well as about effective governance structures.

Cities and sustainability

Putting the argument in context, urbanisation in China on a grand scale is a recent phenomenon. Chinese have lived in villages and towns for millennia, and were drawn into communes during the communist era. Urban policies restricted growth in the large cities, and focused instead on the development of small and medium cities, especially those in strategic locations.

Now there is much greater focus on large cities and ever expanding metropolitan regions. These areas lead the country’s economic rise and they fuel the fastest growth of incomes. Chiao (2010) believes this is the only viable way in which China can attain a sustainable pattern of cities. China has high rural population densities, a scarcity of land and water, and a large and growing urban population. Mega-cities, he argues, are the most resource efficient and hence the only viable settlement pattern for China in the future. This is an ambitious proposition. In large part, it will depend on the social texture of Chinese cities.

As China becomes the location of many of the world’s largest cities it will become a testing ground for new urban strategies and policies. One of its greatest challenges will be to reconcile its ambitious economic growth goals with its need for cities that are more liveable and more resilient, and hence more sustainable.

Bibliography


