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## Megacities in the Asia-Pacific region

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**Introduction**

This session is about global cities. Sydney and Melbourne are the only Australian cities which can have pretensions to be considered global cities. All our cities, of course, are affected by globalization, as are cities everywhere. But to be considered a global city requires not just that the city be affected by globalization, but also that it stand out on a global economic scale.

What sort of criteria are used to declare a city a global city? First, some criteria that are *not* used, at least in isolation. One is population size. Some of the world's largest cities are not global cities. Population size needs to be supplemented by indicators of commercial transactions, and flows of goods, people, information, and capital between major cities. Using approaches such as this in the mid-1990s, Tokyo, as the pivot of the Asian bloc, ranked with New York and London, the pivots of the American and European blocs. Tokyo serves as the junction for the emerging world cities serving the newly industrialized economies of Asia - Hong Kong, Singapore, Seoul and Taipei. Manila and Bangkok were on the verge of acceptance in this top rank of world cities. Another group of cities were in second tier ranking - Osaka, perhaps Kuala Lumpur and Jakarta. Interestingly, neither Beijing nor Shanghai ranked according to the criteria used - they were not sufficiently integrated into the international order (Rimmer, 1996).

These cities have developed extensive metropolitan regions extending outside - in some cases, far outside - their official boundaries. They are interconnected by international sea, land, air and telecommunications networks. They offer bases for multinational firms engaged in finance, insurance, and real estate to manage their global operations and regional headquarters functions.

In some cases, these global cities are coalescing into larger urban forms. Some observers argue that an 'investment corridor' is developing running from Tokyo through Seoul to Beijing with about 98 million urban inhabitants (Choe, 1996); some even argue this investment corridor extends as far as Shanghai and Hong Kong. Another is claimed to be developing from Bangkok to Singapore, with a Jakarta-Surabaya extension in Indonesia.

Singapore is an interesting case of a city deprived of a hinterland by political boundaries. In the situation of below-replacement fertility in Singapore since 1975, and distaste for accepting permanent international migrants in any numbers, Singapore's solution was ingenious: to talk its neighbours into establishing a growth triangle, including the islands of Batam and Bintan in Indonesia, and the Johor Bahru area in Malaysia. It did not take much talking to get these neighbours to agree - after all, they welcome opportunities to profit from the remarkable economic growth achieved by Singapore. Through the growth triangle, Singapore's industry could expand by relying on the abundant labour force of its

neighbours without the difficulty of having to accept large numbers of migrants. At the same time, space-scarce Singapore could build recreational facilities such as golf courses and waterside resorts offshore, and even turn a blind eye to Singaporeans' use of sex services widely available in Batam.

### **Megacities – myths and realities**

Many myths seem to flow around the issue of megacity growth in general, and most of them are heard with specific reference to Asian megacities. A few of them may be dealt with quickly here, and in more detail later in the paper:

#### *In time, megacities are likely to dominate the population structure*

Virtually all the world's population growth in the 2000-2030 period will be in urban areas, but it is very hard to measure the share of megacities in this growth. Using official boundaries, the share of megacities in urban growth will not be as dominant as is often imagined. In 2000, 6.9 per cent of the world's population was living in cities with more than 5 million inhabitants. By 2015, this figure is likely to reach 8.7 per cent (United Nations, 2000:2-3). Most of this increase will result from cities passing the 5 million cut-off point, rather than particularly rapid growth of existing megacities. In Asia, in 2000, 6.4 per cent of population were living in cities of more than 5 million, and by 2015, this figure is projected to reach 8.7 per cent.<sup>1</sup>

The story, however, is different if we include the populations of urbanized zones adjoining the metropolitan cities. These are typically growing faster than the metropolis proper, but for administrative purposes they lie outside it. If these are included, the share of megacities in total projected population growth is considerably larger – in general, at least 50% larger.

#### *Megacities will become unmanageable*

Arguments that megacities are growing to unmanageable size tend to emphasize infrastructure, environmental and governance issues. Opposing arguments that there are no real limits tend to emphasize the observed high productivity of megacities, and the tendency for them to develop multiple nodes, enabling some of the other problems to be broken down into more manageable areal units.

#### *The quality of life in megacities is declining*

The overall proportion of population living in megacities: popular discussions of this emphasize poverty, crime, disease and crowding in the megacities, often with

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<sup>1</sup> The overall proportion of population living in megacities is held down by the fact that many countries do not contain a megacity. Of the South-East Asian countries with megacities, the expected proportion of the population living in that megacity in 2000 is 5 per cent in Indonesia, 11 per cent in Thailand and 14 per cent in the Philippines.

little statistical evidence to back these claims up. There is also evidence that infant mortality has risen in many African cities. However, in Southeast Asian megacities, despite setbacks resulting from the economic crisis, conditions of life are in general much better than in the countryside, and improving over time.

### **Megacity growth – is it slowing?**

It is frequently argued that the growth of megacities is slowing, partly because of the slowing of overall population growth, and partly because as cities become very large, a decline in net in-migration rates causes their growth to decelerate. However, we should be cautious about this claim. The slowing of overall population growth should indeed also ensure a slowing of natural increase in megacities. As for migration, however, the pool of population remaining in rural and regional areas (including urban population in the regions) is still large enough to generate high rates of megacity growth, at least in the South-East and South Asian regions, if the factors inducing regional dwellers to move to the megacities are favourable.

What is actually happening to megacity populations varies widely between cities. Two factors which tend to lead to an understatement of the growth of megacity populations complicate any assessment. The first is that growth of many megacities has spread beyond the metropolitan boundaries normally used to define these cities. The spread of urban activity disregards existing urban boundaries. The population growth rate in areas outside the metropolitan boundaries is frequently much higher than that inside the boundaries. When these megacities were smaller, their core areas frequently had slower growth, and their outer areas faster growth, but at that time both core and outer areas were contained within the metropolitan boundaries. Hence the growth of the metropolitan population took account of both the slower core growth and the faster peripheral growth. But with the further expansion of these cities, the peripheral areas with faster population growth are in many cases located almost entirely outside the metropolitan boundaries. Therefore the growth of the metropolitan population may be quite slow, but it would be a grave mistake to interpret this to mean that megacity growth is slowing. Such an interpretation should only be made when the growth rates of the extended metropolitan region as a whole have been carefully studied, and found to be declining.

The second factor making for an erroneous conclusion that megacity growth is slowing is the tendency for censuses to undercount most seriously in megacities, and perhaps for this tendency to increase as the size of cities increases. Crowded cities with their very mobile populations provide the strongest challenge to census takers, and undercounts have been suspected in many of these cities over a long period – cities as widely divergent as Bangkok and New York. In the recent round of censuses, there is a suspected undercount as large as 2 million in both Jakarta and Karachi.

So – while there are good reasons to expect some slowing of megacity growth, as fertility rates decline and the increasing size of megacities makes it harder for them to maintain past growth rates, we should be *very careful* before we accept that megacity growth has slowed significantly.

### **How large are the megacities of South-East Asia?**

In recent exercises (Jones, Tsay and Bajracharya, 2000; Mamas, Jones and Sastrasuanda, forthcoming), I have worked with colleagues in South-East Asian countries to define inner and outer zones around the large cities of the region, which are affected by the expanding metropolis. The inner zone is the area of actual urban expansion, where population growth is rapid, migration is contributing massively to this growth (both migration outward from the metropolitan core and inward from other parts of the country). The outer zone is further out, less affected and more in a state of ‘incipient urbanization’.

Map 1 shows the areas we defined as the core areas and the zones of South-East Asian megacities. As the circle drawn round a radius 50 or 100 kilometres from the city centre shows, these zones are quite extensive. Table 1 shows the populations of the South-East Asian megacities and their zones in 1990, and Table 2 those of the extended metropolitan regions of the largest Indonesian cities in 1995.

### **Demographic and economic change in South-East Asian megacities**

The following important points can be stressed from these studies:

1. Populations of the extended metropolitan regions of some South-East Asian megacities are almost as large as the total population of Australia.
2. The population of these cities roughly doubles when we add the zones to the metropolitan core; in the cases of Taipei, Bandung, Semarang, and Surabaya there is much more than a doubling.
3. Population density in the cores varies considerably, mainly because of wide differences in the land area included in the core. Bangkok has two and a half times the area of DKI Jakarta or Metro Manila, hence its population is less dense. Semarang’s core is much less densely populated than those of Jakarta or Bandung. But differences in the morphology of these cities also affect their density. Bangkok has few of the crowded urban slums so prevalent in Manila, for example.
4. The inner zones are where the action is – migrants come there from both the core and elsewhere in the country; net migration in many cases contributes as much as two thirds of the population growth in these zones, whereas in the city

**Table 1: Population, density and labour force by zones in Extended Metropolitan Regions (EMR), 1980 and 1990**

Item and Zone	EMR and Year							
	BANGKOK		JAKARTA		MANILA		TAIPEI	
	1980	1990	1980	1990	1980	1990	1980	1990
<b>A. Population ('000)</b>								
Core	4,697	5,876	6,481	8,223	5,926	7,948	2,268	2,761
Inner ring	1,947	2,706	5,413 }	7,676 }	2,820	4,107	3,070	4,035
Outer ring	2,513	3,061			2,932	3,908	709	757
Whole EMR	9,157	11,643	11,894	15,899	11,678	15,963	6,047	7,553
<b>B. Density (Person/km2)</b>								
Core	3,000	3,754	9,760	12,384	9,318	12,497	8,344	10,157
Inner ring	314	437	1019 }	1446 }	964	1,403	3,450	4,534
Outer ring	130	158			312	416	282	301
Whole EMR	337	429	1991	2661	901	1,231	1,644	2,053
<b>C. Growth 1980-1990 (%)</b>								
Core		25.1		26.9		34.1		21.7
Inner ring		39.0		41.8 }		45.6		31.4
Outer ring		21.8			33.3		6.8	
Whole EMR		27.1		33.7		36.7		24.9

**DEFINITIONS**

Core	Bangkok=	BMA (Bangkok Thonburi).
	Jakarta=	DKI Jakarta.
	Manila=	Metro Manila.
	Taipei=	Taipei Municipality.
Inner ring	Bangkok=	changwats of Samut Prakan, Nonthaburi, Pathum Thani, Samut Sakhon and Nakhon Pathom.
	Jakarta=	parts of the kabupatens of Bogor, Tangerang and Bekasi, plus kotamadya Bogor.
	Manila=	parts of the provinces of Cavite, Pampanga, Rizal, Batangas, Bulacan and Laguna.
	Taipei=	Keelung city, the urban part of Taipei County and the urban part of Taoyuan County.
Outer ring	Bangkok=	changwats of Ayuthaya, Saraburi, Chachoengsao, Chonburi and Rayong.
	Jakarta=	parts of the kabupatens of Bogor, Tangerang and Bekasi.
	Manila=	parts of the provinces of Cavite, Pampanga, Rizal, Batangas, Bulacan and Laguna.
	Taipei=	the rural part of Taipei County and the rural part of Taoyuan County.

Table 2.  
Total Population and Average Annual Rate of Population Increase, Indonesian Metropolitan  
Cities and their Sub-regions, 1990-1995

City/Zone	Population ('000)		Average Annual Rate of Increase (%)
	1990	1995	
(1)	(2)	(3)	(4)
<b>1. Jakarta</b>			
a. Core	8,223	9,113	2.08
b. Zone 1	5,434	7,276	6.01
c. Zone 2	3,442	3,771	1.84
<b>Total</b>	<b>17,098</b>	<b>20,160</b>	<b>3.35</b>
<b>2. Bandung</b>			
a. Core	2,057	2,356	2.75
b. Zone 1	2,322	2,683	2.93
c. Zone 2	2,423	2,778	2.77
<b>Total</b>	<b>6,802</b>	<b>7,817</b>	<b>2.82</b>
<b>3. Semarang</b>			
a. Core	1,249	1,346	1.51
b. Zone 1	1,292	1,667	5.23
c. Zone 2	1,251	1,337	1.35
<b>Total</b>	<b>3,792</b>	<b>4,351</b>	<b>2.79</b>
<b>4. Surabaya</b>			
a. Core	2,473	2,695	1.73
b. Zone 1	2,490	2,816	2.50
c. Zone 2	1,698	1,775	0.89
<b>Total</b>	<b>6,661</b>	<b>7,286</b>	<b>1.81</b>
<b>5. Makassar</b>			
a. Core	944	1,086	2.84
b. Zone 1	452	535	3.44
c. Zone 2	279	345	4.29
<b>Total</b>	<b>1,676</b>	<b>1,966</b>	<b>3.25</b>
<b>6. Medan</b>			
a. Core	1,730	1,902	1.91
b. Zone 1	1,296	1,691	5.46
c. Zone 2	845	868	0.54
<b>Total</b>	<b>3,871</b>	<b>4,461</b>	<b>2.88</b>

cores, net migration contributes little to growth. The age structure of migrants to the inner zones reflects the more frequent 'family' nature of the migration, whereas migration to the core is frequently dominated by single young people.

5. Migration changes the educational structure of the inner zone. As migrants tend to be relatively well educated, especially those moving out from the city core, they help raise the average educational level of the population of the inner zone. This is particularly marked in the case of Jakarta, where the educational attainment of the original population of the inner zone was very low.
6. Agriculture's share of employment in the inner zone is declining rapidly, with offsetting increases in the share of industry, trade and services.

### **Monsters or engines of growth?**

Martin Brockhoff of the Population Council claims that "in most developing regions, big city residents are increasingly disadvantaged, and researchers and policymakers can no longer assume that the quality of life in urban areas is better than in rural areas". Brockhoff and Brennan (1997) show that infant mortality in African and Latin American cities has not fallen as expected, and indeed has risen in many African cities; the mortality differential in favour of urban areas has narrowed considerably.

However, this is not the case in Asian cities. Most indicators of welfare show that big city dwellers (for example, in Jakarta or Bangkok) have a considerable advantage over their rural compatriots. This conclusion, of course, could well change if we compared urban slum dwellers with rural dwellers. Data are rarely available to do this. In what is probably the fastest growing Asian city, Dhaka in Bangladesh, the sheer pace of growth, the stronger role of push factors in migration, and the extreme crowding and poor availability of health services in urban slums could well mean that mortality conditions of the urban poor are as bad as or worse than those in rural areas. Certainly, the conditions for spread of contagious diseases could well be worse in the slums.

There is a large body of literature that sees the big cities in a much more positive light - as 'engines of growth', where productivity is much higher than elsewhere in the country, and where economies of agglomeration should be celebrated. As Mera (1981:36) argues provocatively, "the optimal city size may be beyond any size achieved thus far anywhere in the world".

### **Managing Megacity Growth**

Managing megacity growth involves many technocratic issues, but also many less-than-transparent processes which are often ignored in studies of the issue (Ruland, ed., 1996). The best advice of technocrats is sometimes overridden purely because of the greed of political powerholders. The statement "Government projects were implemented not because they provided public services but because they were sources of kickbacks" (Manapat, 1991), while it is applied to Marcos-era Manila, may well be true at times in other South-East Asian

cities as well. This unfortunate reality, however, does not negate the need to decide on appropriate principles with regard to urban management.

### *Infrastructure*

The adequacy of provision of infrastructure – roads, sewerage and rubbish disposal systems, water and electricity supply, not to mention urban housing, has a crucial bearing on megacity dwellers' quality of life. Here I will only deal with transportation in the megacity, as an example of the issues involved. In Bangkok, Manila and Jakarta a substantial proportion of those working in the city face daily commutes of more than an hour each way in crowded and uncomfortable buses. Ways of speeding up this journey to and from work would have enormous welfare implications. Some improvements in traffic flow can definitely be observed in Bangkok, with completion of freeway systems, one-way bus lanes and the first stage of an overhead rail system; also, paradoxically, with the effect of the economic crisis in dampening the growth of private automobile ownership. Manila, too, has a new light rail system. Jakarta, though, remains mainly dependent on bus transport, and the economic crisis means little prospect of investment in rapid public transport.

“Management of the ownership and use of private automobiles in urban areas is the most direct, efficient, and equitable means of containing the urban transport problem” (Linn, 1987: 243). Provision of urban bus services is best left to the private sector, and minibuses should not be discriminated against. Rapid-rail mass transit generally requires extensive subsidization to remain financially viable, and needs to be carefully evaluated against alternative interventions. Investments in roads and traffic management to reduce bottlenecks and improve access to neighbourhoods can frequently be the most effective, though low profile, transportation investment. Finally, non-motorized transport tends to be unduly restricted, and the hapless pedestrian suffers most of all through inadequate provision of walkways and pedestrian over-bridges.

### *Finance*

Mechanisms of financing megacities are obviously crucial to the effective and equitable provision of urban services. Few cities in the region can be cited as examples of conspicuous success. Examples of revenue sources usually available to urban government include the property tax, motor vehicle taxation, and user charges. These are attractive because of their revenue capacity, equity and efficiency. But there is a need for effective administration and clear political will in implementation. Too frequently, property taxes are implemented inequitably, with too many exemptions and excessively low rates. Only 15 per cent of Bangkok's land is actually taxed.

The issues are magnified when the entire megacity region is considered. If special revenue raising powers are made available to the metropolitan government, this

may lead to considerable inequities when such powers are not also provided to administrations of surrounding jurisdictions whose populations are frequently growing much faster than those of the central city and whose needs for urban infrastructure are rapidly increasing.

### *Governance*

Governance of the megacities, comprising as they do different levels of the government administrative apparatus, is a critical issue. We might set out as the three key goals of mega-urban regions those of competitiveness, livability and social justice. It can be contended that these can best (and probably only) be achieved through fostering, in a sustained and long-term way, collaborative governance involving the state, the private sector and civil society (Healy 1997). How can such collaborative governance best be achieved?

In the context of mega-urban regions, three questions of governance need to be simultaneously addressed: (1) how to make political processes more inclusive; (2) how to decentralize effective powers of government to local levels; (3) how to promote collaboration and resolve inter-jurisdictional conflict among local units of government. Progress needs to be made in each of these areas if these regions are to become more livable, socially just and economically viable.

The rise of civil society in Pacific Asia is a potent force demanding openness and inclusiveness of government. Popular sentiments have moved beyond the desire for greater material welfare to aspirations for accountable governments, democratic practices and a translation of economic gains into more livable urban habitats and socially just societies. There is great variation in government responses to these demands. Some governments are moving towards devolution, but more generally, despite the rhetoric of devolution, the practice remains a deconcentration of administrative rather than decision-making functions. The challenges are immense, not least because the inter-connectedness of infrastructural and environmental considerations means that even decisions that on the face of it can be made locally require region-wide planning. Inter-departmental coordinating bodies, regional development authorities, and devolution to local governments all have their problems as practical solutions to dealing with such issues.

### **The ultimate spectre: breakdown of the megacities**

There is a recurring nightmare shared by many of us, even if we fail to articulate it. This is the total breakdown of order in the megacity. A metropolitan region with a population as large as that of the total population of Australia requires sophisticated systems of accessing and distributing foodstuffs and other necessities. Such megacities are totally dependent on supplies imported from other parts of the country and abroad. They are also subject to an implicit threat of breakdown of law and order. Their populations are so large that, given certain

conditions, unrest and mass violence can overwhelm the capacity of police and army to maintain control.

The results of cutting off food supplies were evident in St. Petersburg (then Leningrad) during the long siege by the German army in World War 2. More than half a million deaths resulted, mainly from scurvy and starvation, but basic law and order were maintained. More recently, we have seen the emptying of the (relatively small) city of Phnom Penh by the Khmer Rouge, and massive deaths resulting, partly because city dwellers were expected quite unrealistically to produce their own food supplies in the countryside. We have seen anarchy over periods in some African cities such as Mogadishu. There was a near-breakdown of law and order in Karachi during the mid-1990s, with average daily murders exceeding 3 in 1994 and 6 in 1995 (Karim, no date). And we have seen Jakarta on the brink of total lawlessness for two terrifying days in May 1998, when an orgy of looting, arson, murder and rape took place, with the connivance of elements of the armed forces (Tim Relawan Untuk Kemanusiaan, 1998). Even this year, a daily average of at least one person caught in petty crime has been beaten to death and often set on fire by mobs in and around Jakarta, sometimes watched by police who were apparently too terrified to intervene. Such events engender a widespread fear in the population.

However, it is easy to exaggerate the negatives here. In Jakarta, for example, most people are going about their daily business without being much affected by either violence or the fear of violence. They may be careful to avoid travelling by public transport at night, and to wind up car windows while waiting for traffic lights to change at key intersections. Women are cautious about catching taxis alone. Wearing of jewellery is avoided. And while Jakarta is clearly the worst case of insecurity in the Southeast Asian megacities, in Bangkok and Manila the population is seeing some improvement of the former traffic gridlock as a result of completion of overhead rail systems.

## **Conclusions**

Southeast Asian megacities are not yet global cities, but some of them may become so. Their rates of growth are matters of debate, because of the uncertainty about the appropriate boundaries to use, and because of the tendency to under-enumerate their population in censuses. But these rates of growth are not unmanageable, partly because fertility rates have fallen to low levels, and partly because the rates of in-migration are lower than were frequently projected. These megacities resemble living organisms, with population steady or even declining in inner areas, growing rapidly on the fringes, and age structures changing in all areas. The economic structure of the zone lying outside the municipal boundaries is changing dramatically, as is the educational level of its population.

These cities pose immense, but not insuperable, planning issues. Perhaps the greatest challenge of all is to achieve greater transparency in planning, and to

involve civil society in planning and management, in ways that overcome the usual NIMBY (not-in-my-back-yard) syndrome.

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