## 4.2 Urbanization

Olli Varis

Many say that urbanization will even be a more problematic and momentous issue than population growth. The fact that almost all of the world's population growth ends to cities implies that urbanization is among the major global changes. It is a big issue to most individuals in coming decades, as well as when considered as a driving force in any development of the societies, whether nature, environment, social issues or economics are in focus.

# Cities absorb the population growth

The previous Chapter presented the outline of population growth on the world scale, as well as in the study regions. The growth in urban areas — due to both migration and natural growth — accounts for almost all of the total population growth.

At present, around one half of the earth's 6 billion people live in urban areas. Each year, the world population grows with around 80 millions. Practically all of this is urban growth, but merely due to migration; fertility rates are far smaller in urban areas than in rural ones.

Let us view the mankind just one generation ahead in time, which is the shortest possible time span for any consideration of sustainable development. World's urban population is expected to reach 5 billion by 2030. This would be 66% more than in 2000, and would mean that 60% of world's population lives in urban areas (UN 2002b).

## Africa and Asia will urbanize massively

In Africa and in Asia, the proportion of urban population is around 1/3 while in all the other continents it is over 2/3. Therefore, the most massive urbanization development is to be expected in Asia and in Africa (Figure 4.2a).

In many big cities of Africa, such as Addis Ababa, Kinshasa, and Lagos, the population more than doubles in a decade. In China, the urban population has been estimated to grow with 378 million by 2025. China's cities face severe environmental and resource degradation problems already now. The urban population, however, is 'only' 456 million today.

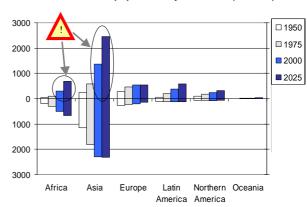
# Urbanization of low-income countries

It seems that urbanization will touch most drastically the low-income countries, in most of which urbanization is very fast and will continue long (cf. Figure 4.2b). In terms of population share, India and China are in the key position; they have roughly 2/3 of the low-income category population.

In developing countries, much of the urban growth occurs in an uncontrolled fashion. Several, interlinked vicious circles feed the cities with people, and government controls are only partial. In many cities, up to 90% of the population are linked with the informal sector (Drakakis-Smith 1987), and much of the formal sector is at least partially controlled by foreign enterprises.

Figure 4.2a Rural and urban population by continent Rural below the line. Source: UN (2002b).

Rural and urban population by continent (millions)



Urbanization – its causes, driving forces, and consequences – are not limited to urban areas. The marginally growing rural population must practically feed themselves and the rapidly growing urban areas. This will not be simple.

## Why urbanization?

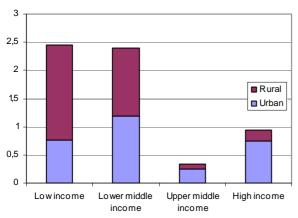
Why is there an alarming number of people leaving their rural settlements, with their sound social relations, and moving into hectic urban centers, where

Figure 4.2b

## **Urbanization and economic categories**

Population in urban centers and rural areas. The urbanization rates in 1995-2002 were 3.3% for low-income, 2.4% for lower middle income, 1.6% for upper middle income, and 1.0% for high income economies. Source: World Bank (2004).





there is a high probability of living in very poor and overcrowded circumstances? Most migrants to many developing world cities build their homes on any available land without adequate infrastructure, and often live on a formally illegal basis.

In Ankara, Turkey, 2/3 of people live in squatter settlements, because former urban plans have proven incapable of meeting the demands of the population explosion (Drakakis-Smith 1987). The situation is not too different in many other cities; 2/3 of the population of Calcutta, India, and 3/4 of that of Ibadan, Nigeria, live in squatter conditions.

The fundamental reasons to urbanization are twofold (Figure 4.2c), called often the rural push and the urban pull (see Haggett 1979). Rural areas often have high birth rates, and they do not offer work for the growing number of young people. Even improving technology often reduces the need for labor.

Figure 4.2c

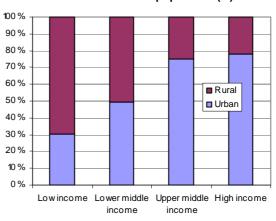
## Rural push and urban pull forces

Water management and infrastructure decisions are among their many components.



Urban pull factors are manifold. Discrepancies in living conditions between rural and urban areas are marked in many countries; In Brazil, Iran, and Argentina, the ratio of Gross Regional Product between the richest and poorest regions is one order of magnitude. Box 4.2a

Rural and urban population (%)



#### Vicious circles of urban growth

One should evidently make any attempts to try to cut the vicious circles in urban development, and to make the urbanization and infrastructure development more controlled processes (Figure 4.2d).

This, however, requires huge amounts of political and economic power and will, especially over the informal sector. These are often lacking. Recent developments in former centrally planned economies are vivid examples of collapsing formal sectors that tried to keep a strong control over the opening societies. How the success stories of today — e.g., Singapore, Western Europe — will develop further, remains to be seen.

Figure 4.2d

Vicious circle of infrastructure development City growth appears to outpace infrastructure development in many fast growing cities.



Although the increased income level represents by no means the most likely scenario for a migrant who moves to a city, it shows the possibility of a better life, however tiny one. In reality, the differences between the economic elite and the migrant are typically huge.

Most cities of the developing world have a colonial background. Colonialism varied enormously from region to region, but some general features can be detected. Drakakis-Smith (1987) has a 7-step model

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for colonial urbanization (see also King 1991). It relates primarily to Asia, but the succession is mostly likely to be valid across Africa and Latin America as

well. The time scales may differ from city to city. A brief summary of the model with an example (Delhi, India) is given in Box 4.2b.

Box 4.2b

#### The Delhi case

An example of the history of urbanization (after Drakakis-Smith 1987).

Pre-contact phase (pre-1500). Small towns with organical pattern predominate.

Mercantile colonialism (1500-1800). Limited colonial presence in ports. Trade in natural products of the local region. At the end of the 18th Century, Delhi was the Mogul capital with 150 000 inhabitants. The center was dominated by the Royal Palace, the Jama Mosque and the Chadni Chowk, as political, religious, and commercial foci, respectively. The remainder consisted of narrow lanes and organically patterned mixed land uses.

Transitional phase (1800-1850). Reduced investments overseas. Industrial revolution facilitated greater profits. Between 1803 and 1857 Delhi was a district military post to Punjab — not a major administrational or commercial center — with a few hundred European inhabitants. The British were living in an area next to the Royal Palace, where the Mogul aristocracy used to live. Their living was very similar to that of the local elite. Very little conflict took place.

Industrial colonialism (1850-1920). Cheap raw materials from colonies. Territorial patterns, new settlements. In Delhi, the puppet emperor was dethroned in 1857. The British military control sharpened, and the indigenous people were forced to move out of the civil lines. Isolation increased. Many imposing buildings for symbolizing institutional power were constructed. Around 230,000 Indians were living in the old city of 4 km² while a few thousand British lived in the open spaces of their district.

Late colonialism (1920-1950). Growth of European influence. Extension to smaller towns in hierarchy. Delhi was chosen as the capital of India in 1911 due to good railway connections. A decade later, New Delhi was planned on a vast scale. Spatial categorization was very rigid. There was no manufacturing growth except some food industry. Old Delhi received some improvements to water supply and drainage, but major water infrastructure efforts were focused on the foreigners' districts. There was massive immigration to Old Delhi, which amplified the contrasts.

*Early independence* (1950-1970). Rapid population growth by immigration of indigenous people in search for jobs. Expansion of slum and squatter settlements. Delhi's population increased rapidly. It was an attractive opportunity, although most immigrants lived in very poor circumstances. Around 1960, Old Delhi contained 60% of the city's population in with a density of 41,300 per km².

New international division of labor (1970 onwards). Appearance of the factories of multinational corporations. Further migration. Since 1960, Delhi's population has grown fourfold, up to 6 million. Squatter settlements without proper water related infrastructure have expanded and multinational companies do not employ a notable part of Delhi's population, unlike in some other big cities in the developing world.

In many countries the biggest urban centers are the most attractive ones, and therefore grow faster than other cities. In Thailand, the growth rate of Bangkok greatly outpaces that of other Thai cities. The concentration of manufacturing centers within the capital is strong. Manila contains 79% of the Philippines manufacturing employment.

As a result, many capitals have become under direct government administration, almost to the point of being quasi-independent (e.g., Jakarta, Bangkok Metropolitan Area, Metro Manila, Federal Territory of Kuala Lumpur). These cities evidently want to be among the ones that raise from peripheral to semiperipheral or even core socio-economic units in the global scale (cf. King 1991). Such centers are pressingly needed, especially in Sub-Saharan Africa and in many parts of Asia.

Developments of infrastructure and technology are among the key factors, which have contributed to the

growth of present day cities. As mentioned above Delhi was chosen as the capital of Imperial India because of good railway connections. Its growth in area and population in the 1920s and 1930s was greatly enhanced by the spreading of cars, telephones, etc.

Other examples include Jakarta, Indonesia (Box 10.3b) and Bangkok, Thailand (Figure 4.2e). They both are subject to the typical dichotomy; the present infrastructure has not been able to respond to the growth of the city, but any improvement in infrastructure potentially speeds the growth of the city (Box 4.2a). Now, these cities are not among the poorest, nor the most problematic ones in the world.

A counterexample is China where many middle-sized cities grow now much faster than the biggest cities such as Shanghai, Beijing or Tianjin.

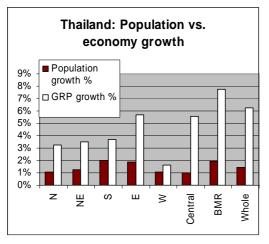
Todaro (1997) classifies five main, non-economic reasons that influence the decision of individuals to migrate from rural areas to urban ones. They are:

• *Social factors*: the will to break away from traditional constraints of traditional organizations.

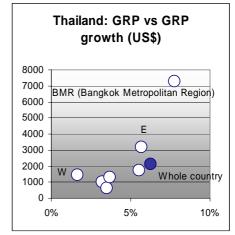
Figure 4.2e

## Thailand's and Bangkok's economy

Bangkok's strong economy in comparison to the economy of the rest of Thailand. The period 1989-93 is under study; annual rates are shown. GRP means Gross Regional Product, shown in US\$. BMR is Bangkok Metropolitan Region. Source: Pednekar (1997).







- *Physical factors*: Disasters due to climate and weather, such as droughts and floods.
- Demographic factors: massive population growth rates in rural areas due to decreased mortality.
- Cultural factors: Security provided by extending the family relationships to urban areas and the allure of the urban lifestyle.
- Communication factors: improved transportation, educational systems, and the influence of mass media and telecommunications.

Todaro (1997) adds, that the primary factors tend to be economical in nature. The biggest group of migrants is young people between the ages of fifteen and twenty-four. The level of educational attainment correlates well with migration.

In former days, the majority of migrants tended to be landless, poor, and unskilled individuals, who had no opportunities to make their living in urban areas. Todaro (1997) argues, that the situation has changed due to the growth of stability in economies and industrial growth. Today, migrants come from all social strata. They are poorer than urban dwellers, because the rural income level is lower than the urban one.

After all, the situation must be very country-specific, and such generalizations may be too vague. Both the poor and unskilled, as well as the well-educated indi-

viduals seek better living from cities. Their proportion must be very different in different countries.

## **Study regions: overview**

The study regions account at present for around 71% of the world's rural population. This share will grow slightly when viewing the world one generation ahead in time (Figure 4.2f). China's share will decrease, but that of the other regions will more than compensate that number.

Their share of urban population has grown markedly, and will continue to do so. One generation ago, in 1975, their urban population was 452 millions, which was 29% of world's urban population. In 2000 these figures were 1196 millions and 42%. In the UN (2002b) projections for 2025, the corresponding numbers are 2,362 millions and 51%.

In 1975-2000, the urban population grew 2.28-fold in S Asia and 3.5-fold in W Africa (Table 4.2a). The rates in the other regions were between those two. In countries outside the regions the rate was 1.59. Within the period 2000-2025, China's urban population is expected to grow 1.82-fold, and Nile's 2.39-fold.

In the statistics for the study regions, the urbanization rate correlates significantly, negatively, with the wealth of the nation. The poorer the country is, the faster the urban areas grow (Figure 4.2g).

Figure 4.2f **Urbanization forecasts** 

Rural and urban population in the study regions and in other countries. Source: UN (2002b).

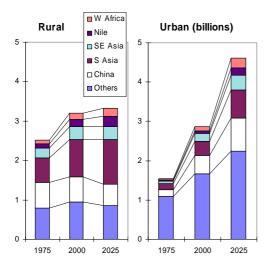


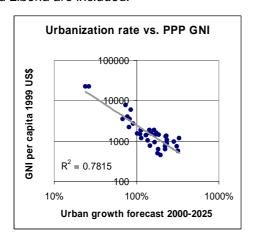
Table 4.2a **Rural and urban growth** *Growth rates adjusted for 25 years (source: UN 2002b).* 

Rural	1975-	2000-	Urban	1975-	2000-
	2000	2025		2000	2025
China	0.97	0.86	China	2.80	1.82
S Asia	1.53	1.20	S Asia	2.28	1.98
SE Asia	1.31	0.98	SE Asia	2.74	1.90
Nile	1.73	1.38	Nile	2.74	2.39
W Africa	1.59	1.37	W Africa	3.50	2.52
Others	1.22	0.77	Others	1.59	1.56

Figure 4.2g

#### Poor countries urbanize most rapidly

A log-log correlation plot for urban growth forecast (UN 2002b) against Purchasing Power Parity adjusted GNI per capita in 1999 (World Bank 2001). All the study countries except Myanmar and Liberia are included.



# **Asian regions**

China has by far the lowest expected population growth among the study regions (Figures 4.2h and i). The rural population is even expected to go down by 14% between 2000-2025. The number of urban people, however, will grow by 83%, which means not less than 378 million people (which exceeds the population of the European Union in 2003). In 2025, the UN (2002a) estimates for urban and rural population in China are 834 and 552 millions, respectively.

The other giant, India, has a different pattern than China in the sense that the rural population is expected to grow by 16%. Urban growth will be 82%, which is very close to the Chinese level. India will remain far more rural country than China with its urbanization level of 37.5% against China's 60.2% in 2025.

Bangladesh and Pakistan will both have a far higher relative population growth than India. Their urban populations are expected to grow around 2.5-fold in mere twenty-five years. At the same time the number of rural people is also expected to grow 44% in the case of Pakistan, and 21% in Bangladesh. Their total population was 278 millions in 2000, and it is expected to grow up to 461 millions which is a massive number.

Nepal, however, will have proportionally the highest population and urbanization growth in the Asian regions. It shares the pole position with Cambodia. In these very poor countries, the urban population grows 3.3-fold between 2000 and 2025. This growth, accorded with the 50% growth in rural population, will challenge those resource-scarce societies—the poorest ones in Asian study regions—in a very big way. In addition, Lao PDR is almost in a same level of trouble with its urbanization and population growth as Cambodia and Nepal.

The other SE Asian countries all have an urbanization and population growth pattern, which is surprisingly homogeneous: the urban population will double, the rural one will change only little. In these countries there already are a number of very crowded and massive megacities which will grow further and new ones will emerge.

## African regions

Whereas the poorest countries in the Asian study regions will have enormous challenges with their urbanization problems, there are several countries in African regions, which will have even superior challenges.

In W Africa, there are two groups of countries, which are particularly problematic in terms of urbanization. The first group consists of the landlocked, extremely poor countries in the Sahel zone: Chad, Niger, Burkina Faso and Mali. Their urban population will grow around 3.3 to 4.2-fold in 2000-2025. On the top, the

rural population growth will be 1.5 to 2-fold. The second group is the violence-blocked countries Liberia and Sierra Leone. In fact, virtually all the W African study countries will face remarkable challenges with urbanization.

Figure 4.2h

Population grows fast and concentrates to urban areas

Growth rates of urban and rural population in the study region countries. Source: UN (2002b).

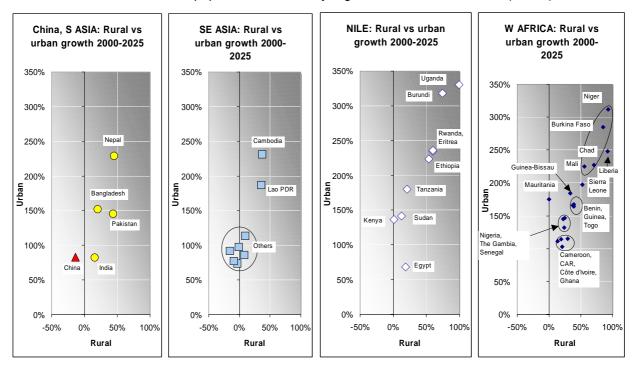
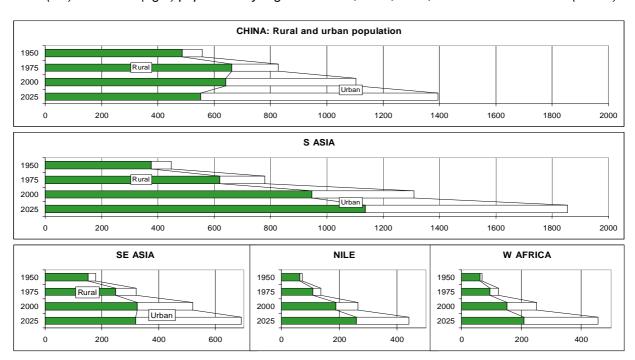


Figure 4.2i

Most of the population growth ends to urban areas

Rural (left) and urban (right) population by regions in 1950, 1975, 2000, and 2025. Source: UN (2002b).



In the Nile region, Uganda and Burundi have extremely high urbanization forecasts. Their urban population is expected to grow over 4-fold in twenty-five years. Again, high rural growth is taking place at the same time. Egypt is very different from the other Nile region countries. Its urbanization rate is quite modest, urban areas are expected to have 68% more population in 2025 than they had in 2000. This number is small only in comparison to the other African countries but in reality it is an alarming growth rate.

## **Big cities**

Urbanization is seen most dramatically as the growth of large urban agglomerations, which are expected to grow like mushrooms in all the study regions. This growth is bigger than in any other parts of the world. Whereas in 1985, only three study region countries were among the world's ten biggest cities, in 2000 there were four and in 2015 there will be six of them.

Astonishingly, W Africa is the most urbanized study region. Also it has by far the biggest share of migration to big cities (Figure 4.2j). China is equally clearly the last on that list.

Figure 4.2j

Relative growth of population in big cities

Source: UN (2002b).

# Big city growth per total population China S Asia SE Asia Nile W Africa 0.0% 0.5% 1.0% 1.5% 2.0%

The UN Population division publishes regularly statistics on the large urban agglomerations of the world. Those statistics include all cities with over 750,000 people in 1990. The study regions include altogether 125 such cities. Tables 4.2b and c include some basic data of those cities (see also Figures 4.2 k and l).

Table 4.2b **Summary data: big cities of study regions** For details see Table 4.2c and UN (2002b).

Region	Number of big cities	Population in big cities (million) and % of total	Average growth rate (in 25 years)
China	50	131 (10%)	0.73
S Asia	44	153 (12%)	2.00
SE Asia	15	59 (12%)	1.32
Nile	7	25 (10%)	2.29
W Africa	9	30 (12%)	3.22

Some cities are expected to grow more than 5 or 6-fold in 25 years. Such cities include Dhaka (Bangladesh) and Peshawar (Pakistan). Other cities that grow more than 4-fold, include Yaounde (Cameroon), Conakry (Guinea) and Gujranwala (Pakistan).

The massivity of the urbanization development is striking; whether considered from the standpoint of megacity growth, augmentation of the urbanization level, or from the growth rates of urban population.

Urbanization in developing countries is remarkably faster than in industrialized countries. Moreover, the biggest cities appear to grow at the highest rates with the exception of China. Much of this urban growth occurs uncontrolled, with only a minor impact felt from government controls.

Figure 4.2k

World's biggest cities in 2015

With population data from 1985 and 2000. The study region countries are marked by \*. Source: UN (2002b).

#### World's biggest cities in 2015

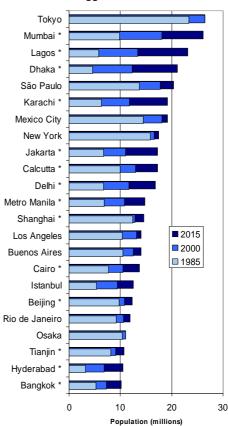


Figure 4.2I Growth rates of world's biggest cities Within the ten biggest cities in 2015, there are six cities inside the study regions. They grow much faster than the other ones. Source: UN (2002b).

#### Growth of world's 10 largest cities

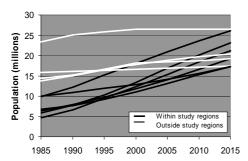


Table 4.2c Cities of case study regions Population of cities with at least 750,000 inhabi-

tants in 1990 (millions). Growth rate (r) adjusted for 25 years is shown (source: UN 2002b).

Region	Country	City	1975	2000	2015 q/25a
S Asia	India	Mumbai	6.85	18.0	26.1 1.757
W Africa	Nigeria	Lagos	3.3	13.4	23.1 3.763
S Asia	India	Calcutta	7.88	12.9	17.2 0.741
China	China	Shanghai	11.4	12.8	14.5 0.171
S Asia	Bangladesh	Dacca	1.92	12.3	21.1 6.231
S Asia	Pakistan	Karachi	3.98	11.7	19.2 2.389
S Asia	India	Delhi	4.42	11.6	16.8 1.748
SE Asia	Indonesia	Jakarta	4.31	11.0	17.2 1.875
SE Asia	Philippines	Metro Manila	5	10.8	14.8 1.228
China	China	Beijing	8.54	10.8	12.2 0.274
Nile	Egypt	Cairo	6.07	10.5	13.7 0.788
China	China	Tianjin	6.16	9.15	10.7 0.461
SE Asia	Thailand	Bangkok	3.84	7.28	10.1 1.025
China	China	Hong Kong	3.94	6.92	7.68 0.593
S Asia	India	Hyderabad	2.08	6.84	10.4 2.508
S Asia	India	Madras	3.60	6.64	9.14 0.958
S Asia	Pakistan	Lahore	2.39	6.04	9.96 1.970
S Asia	India	Bangalore	2.11	5.56	7.98 1.737
China	China	Chongqing	2.43	5.31	8.94 1.668
China	China	Wuhan	2.92	5.16	7.35 0.944
China	China	Shenyang	3.69	4.82	5.66 0.333
SE Asia	Viet Nam	Ho Chi Minh	2.35	4.61	6.20 1.022
SE Asia	Myanmar	Yangon	1.76	4.19	6.04 1.523
S Asia	India	Ahmedabad	2.05	4.16	5.82 1.150
Nile	Egypt	Alexandria	2.24	4.11	5.52 0.915
China	China	Guangzhou	3.10	3.89	4.46 0.273
SE Asia	Viet Nam	Hanoi	0.81	3.73	5.10 3.282
S Asia	Bangladesh		1.01	3.58	5.87 2.985
SE Asia	Singapore	Singapore	2.26	3.56	3.99 0.478
S Asia	India	Pune (Poona)	1.34	3.48	5.12 1.757
SE Asia	Indonesia	Bandung	1.49	3.40	5.24 1.568
W Africa	Cote d'I-	Abidjan	0.96	3.30	5.06 2.674
China	China	Chengdu	2.07	3.29	4.09 0.607
China	China	Xian	1.93	3.12	3.81 0.604
China	China	Changchun	1.55	3.09	4.57 1.208
China	China	Harbin	2.28	2.92	3.36 0.294
China	China	Nanjing	1.93	2.74	3.26 0.427
Nile	Sudan	Khartoum	0.88	2.73	4.61 2.626
Nile	Ethiopia	Addis Ababa	0.92	2.63	5.09 2.802
China	China	Dalian	1.39	2.62	3.16 0.790
China	China	Jinan	1.23	2.56	3.10 0.943
S Asia	India	Lucknow	0.89	2.56	3.94 2.140

China	China	Guiyang	1.14	2.53	3.96 1.548
Region	Country	City	1975	2000	2015 g/25a
SE Asia	Indonesia	Surabaja	1.47	2.46	3.40 0.821
S Asia	India	Kanpur	1.42	2.45	3.40 0.872
China	China	Taiyuan	1.51	2.41	2.95 0.590
Nile	United	Dar es Salaam	0.63	2.34	4.25 3.539
S Asia	India	Surat	0.64	2.34	3.61 2.891
China	China	Qingdao	1.10	2.31	2.86 0.994
Nile	Kenya	Nairobi	0.67	2.31	3.77 2.858
S Asia	Pakistan	Faisalabad	0.90	2.23	3.75 1.964
S Asia	India	Jaipur	0.77	2.14	3.19 1.937
S Asia	Pakistan	Peshawar	0.34	2.09	3.57 5.806
W Africa	Senegal	Dakar	0.76	2.07	3.49 2.219
China	China	Zhengzhou	1.22	2.07	2.69 0.749
S Asia	India	Nagpur	1.07	2.06	2.90 1.062
S Asia	Pakistan	Gujranwala	0.43	2.05	3.48 4.335 2.51 1.430
China W Africa	China Ghana	Handan	0.76 0.85	1.99 1.97	2.51 1.430 3.41 1.879
SE Asia	Indonesia	Accra Medan	1.03	1.97	2.65 0.983
China	China	Xuzhou	0.66	1.87	3.57 2.722
W Africa	Guinea	Conakry	0.37	1.82	3.15 4.658
China	China	Hangzhou	1.09	1.78	2.36 0.719
China	China	Changsha	0.94	1.77	2.53 1.056
S Asia	India	Kochi (Cochin)	0.53	1.76	2.72 2.579
W Africa	Nigeria	Ibadan	0.64	1.73	2.79 2.071
China	China	Lanzhou	1.17	1.73	2.1 0.492
China	China	Nanchang	0.89	1.73	2.50 1.119
S Asia	India	Visakhapatnam	0.45	1.70	2.69 3.094
China	China	Kunming	1.22	1.70	2.04 0.420
China	China	Tangshan	1.19	1.67	2.10 0.474
W Africa	Cameroon	Douala	0.38	1.67	2.77 3.940
S Asia	India	Ludhiana	0.47	1.65	2.59 2.759
S Asia	India	Ulhasnagar	0.49	1.63	2.51 2.585
S Asia	India	Vadodara	0.57	1.60	2.41 2.015
China	China	Shijiazhuang	0.94	1.60	2.07 0.757
S Asia	India	Bhopal	0.48	1.57	2.40 2.453
S Asia	Pakistan	Rawalpindi	0.67	1.53	2.59 1.796
S Asia	Pakistan	Multan	0.59	1.5	2.54 2.032
China	China	Anshan	1.08	1.45	1.69 0.352
China	China	Luoyang	0.79	1.45	1.92 0.887
W Africa	Cameroon	Yaounde	0.27	1.44	2.42 4.875
China	China	Qiqihar	1.09	1.43	1.69 0.345
China	China	Jilin	0.95	1.43	1.76 0.535
S Asia	India	Indore	0.66	1.42	2.05 1.313
S Asia	Bangladesh		0.47	1.42	2.30 2.427
SE Asia		Palembang	0.59	1.42	
China	China	Wulumuqi	0.71	1.41	1.89 1.026
China	China	Fushun Fuzhou	1.08	1.41	1.65 0.332
China SE Asia	China		1.01	1.39	1.62 0.375 1.85 1.174
China	Malaysia China	Kuala Lumpur Baotou	0.64 0.91	1.37 1.31	1.85 1.174 1.61 0.474
China	China	Nanning	0.67	1.31	1.66 0.922
S Asia	Pakistan	Hyderabad	0.66	1.30	2.21 1.449
S Asia	India	Coimbatore	0.81	1.29	1.79 0.756
S Asia	India	Patna	0.64	1.29	1.79 1.114
S Asia	India	Varanasi	0.68	1.29	1.83 1.060
S Asia	India	Madurai	0.79	1.27	1.76 0.772
S Asia	India	Meerut	0.43	1.26	1.92 2.165
China	China	Hefei	0.71	1.24	1.57 0.749
S Asia	India	Vijayawada	0.41	1.23	1.88 2.183
S Asia	India	Thiruvanan-	0.45	1.22	1.88 1.968
Nile	Uganda	Kampala	0.39	1.21	2.59 3.446
SE Asia	Philippines	Davao	0.48	1.20	1.71 1.576
China	China	Suzhou	0.61	1.18	1.71 1.104
China	China	Shantou	0.64	1.17	1.68 1.012
S Asia	India	Agra	0.68	1.16	1.65 0.895
China	China	Datong	0.87	1.16	1.35 0.339
China	China	Wuxi	0.73	1.12	1.42 0.591
S Asia	India	Kozhikode	0.41	1.11	1.66 1.900
China	China	Daging	0.62	1.07	1.32 0.692
S Asia	India	Allahabad	0.56	1.06	1.52 1.063

SE Asia Indonesia Ujung Pandang 0.50 1.05 1.55 1.306
Table 4.2c (continued)

## Cities of case study regions

Population of cities with at least 750,000 inhabitants in 1990 (millions). Growth rate (r) adjusted for 25 years is shown (source: UN 2002b).

Region	Country	City	1975	2000	2015 g/25a
Nile	Egypt	Shubra El-	0.35	1.03	1.43 1.906
S Asia	India	Jabalpur	0.62	1.02	1.42 0.804
S Asia	India	Jamshedpur	0.53	1.00	1.41 1.015
China	China	Huhehaote	0.61	0.97	1.17 0.562
S Asia	India	Dhanbad	0.52	0.96	1.34 0.967
China	China	Benxi	0.71	0.95	1.13 0.365
China	China	Jixi	0.65	0.94	1.21 0.530
China	China	Liuzhou	0.46	0.92	1.26 1.072
China	China	Yichun	0.66	0.90	1.07 0.384
China	China	Jinzhou	0.53	0.83	1.06 0.632
SE Asia	Indonesia	Semarang	0.66	0.78	0.96 0.291
China	China	Fuxin	0.57	0.78	0.95 0.416