

THE PATTERNS OF INDONESIA'S URBANIZATION, 1980-2007

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It is widely believed that there is a close relationship between urbanization and socio-economic development. The industrialized countries, notably North America, Western Europe, Australia, and Japan have a much higher proportion of urban population compared to developing countries (Table 1) whereas the newly industrialized countries, such as South Korea and Malaysia have shown a solid transition towards an urban society. In contrast, developing countries, such as Indonesia, have a relatively low level of urbanization.

Urbanization is a transformation from a rural to an industrial way of living. It is considered one of the world's most phenomenal socioeconomic changes. However, in a narrower sense urbanization is considered to be a demographic phenomenon, defined as the level of urbanity of a community or nation, conventionally measured by the proportion of the urban population over the total national population. There are three determinants of urbanization: natural population increase, rural-urban migration, and reclassification. Nevertheless, the term urbanization should be distinguished from urban population growth, which refers to the rate of annual increase of urban population, either of individual cities or of the entire urban population.

This study is concerned with demographic and geographical patterns of recent urbanization in Indonesia. Although its focus is on urbanization as a demographic process, the study perceives that urbanization should not merely be considered as a demographic phenomenon, but should be viewed within the broader context of political and socioeconomic change.

Table 1
Estimated Total Population, Proportion of Urban
Population and Gross National Income Purchasing Power
Parity of Selected Countries, 2006

Country	Total Pop. (million)	% urban	GNI PPP per capita (US \$)
DEVELOPED COUNTRY			
United States of America	299.1	79	41 950
Canada	32.6	79	32 220
Japan	127.8	79	31 440
Australia	20.6	91	30 610
Germany	82.4	88	29 210
French	61.2	76	30 540
Sweden	9.1	84	31 420
United Kingdom	60.5	89	32 690
New Zealand	4.1	89	23 030
TRANSITIONAL COUNTRY			
South Korea	48.5	82	21 850
Argentina	39.0	89	13 920
Malaysia	26.9	62	10 320
Brazil	186.8	81	8 320
DEVELOPING COUNTRY			
Thailand	65.2	33	8 440
Philippines	86.3	48	5 300
China	1 311.4	37	1 500
Uganda	27.7	12	3 670
Indonesia	225.5	42	3 720
India	1 121.8	29	3 460
Vietnam	84.2	26	3 010
Bangladesh	146.6	23	2 090
Cambodia	14.1	15	2 490

Source : The Population Reference Bureau, 2006 (2006 World Population Data Sheet)

Indonesia is one the largest archipelagic countries in the world, with five major Islands namely Sumatra, Java, Kalimantan, Sulawesi and Papua (Figure). The population reached 203.5 million in 2000 and is estimated to have been close to 225 million by 2006 (Population Reference Bureau, 2006), which makes the country the fourth most populous in the world. The population distribution in Indonesia is highly uneven, where about sixty per cent of the population is concentrated in Java, which comprises about seven per cent of the total land area. The urban population had been growing, from 32.8 million to 85.2 million over the period 1980-2000 (Table 2), and is estimated to have reached nearly 95 million by 2006 (Population Reference Bureau, 2006

Elsewhere, the senior author has examined the patterns and trends of urbanization in Indonesia 1980-1995 (Firman, 1996 and 1997) using the results of the Indonesian Population Censuses 1980 and 1990, and the Intercensal Population Survey (SUPAS) 1995. The study concludes that the pattern of urbanization in Indonesia during the period reflects the regional disparity in the country, notably between Java and the outer islands (Figure 1), and manifests the intensive rural-urban interaction, especially in Java. The senior author has also conducted a study of recent urban development in Indonesia, focusing in great detail on the socioeconomic and political factors which had affected patterns of recent urbanization in Indonesia, including the boom economy during the 1980's to mid 1990's, the economic crisis at the end of 2000 (Firman, 2002), new regional autonomy and fiscal decentralization policy since 2001 (Firman, 2003b) and the spatial pattern that has resulted (Firman 2003a and 2004). With this context in mind, the present study will re-examine and update the patterns and trends of urbanization in Indonesia, covering the period 1980 to 2006, that is, the period of the boom economy to the Decentralization era, including the crisis in the late 1990s and early 2000s.

The economic crisis at the end of the 1990s and the early 2000s has caused economic activities to shrink and resulted in a rapid increase in the number of unemployed in the big cities in Indonesia. The current urban economic growth is greatly driven by exports and consumption instead of by investment, while the urban economy has not really recovered yet. Meanwhile, the new laws of regional autonomy and fiscal decentralization could have significant impact on urbanization in the future, since urban development will become a local development affair.

Urbanization and urban development have long been researched in developed countries, but it is a relatively new area of study for Indonesia as for many other developing countries. Rapid urban growth and the emergence of complex metropolitan areas have been a new phenomena in Indonesia (Gardiner, 1997b; see also Gardiner and Gardiner, 2006).

This study aims to identify the continuity and changes in the recent geographical and demographic patterns of urbanization in Indonesia (2000-2006) compared to those during 1980-2000, and the extent to which the macro socioeconomic and political environment affect the patterns. It will rely mainly on data from the National Population Censuses 1980, 1990 and 2000 and Village Potential (PODES) 2006, which have been analyzed by Gardiner and Gardiner (2006).

It should be stated from the outset, however, that there were some problems encountered in collecting the 2000 census due to the political and economic crisis in the country during the census period (Hull, 2001, Jones 2002), when some regions in Indonesia experienced murderous communal and separatism movement conflicts, notably Aceh Nanggro Darussalam, Maluku, West Kalimantan, Central Sulawesi, and the border area between East Nusatenggara with Timor Leste, a new independent country which was formerly an Indonesian province, i.e. East Timor. There are estimated to be about 4.5 million persons not included in the Census Report, that is, approximately 2.2 per cent of the total population, most notably refugees in the conflict regions and those who cannot be reached by census officials, such as the homeless (*gelandangan*). The under-enumeration might affect the data on urban population in the troubled areas, but the results of the 2000 Census are still the best data available that can be used to analyze recent general patterns of urbanization in Indonesia as a whole, while the results of the Indonesian 2005 intercensal survey (*SUPAS*) 2005 has not been officially released.

The definition of 'urban' greatly varies from country to country, making international comparisons on urbanization difficult, whereas a conventional rural-urban dichotomy seems increasingly inadequate due to development of transportation networks (Cohen, 2004). As Gardiner and Gardiner (2006) correctly point out, there are two alternative definitions of "urban" in Indonesia: one is administrative, in which local government units (*Kota*) are given official status as municipalities. The other is functional, where each of the smallest administrative units (*Desa*) is given a functional urban or rural status according to their own characteristics. It should be noted, however, that the urban-rural distinction in the Indonesian context, as in many other Asian countries, is blurred (McGee, 1991, 1994, 1995; McGee and Robinson, 1995). In fact, some urban characteristics appear in rural areas both physically and socio-economically (Firman and Dharmapatni, 1995; Hugo, 1996; Firman, 1997 and 2003a; Gardiner, 1997a and 1997b).

The Indonesian population censuses of 1980, 1990, and 2000 defined a locality as 'urban' when it meets the three following requirements (CBS, 1988; see also Firman, 1992 and Gardiner and Gardiner, 2006): first, having a population density of 5000 people or more per square kilometer; second, having 25 per cent or less of the households working in the agricultural sector; third, having eight or more kinds of urban facilities. ⁱ

The blurred distinction between 'urban localities' and 'rural localities' and the development of over-bounded urban built-up areas which are very

sensitive to the definition of urban areas, had obviously reduced the relevance of the above mentioned criteria (Hugo, 1996). Another problem with the above criteria is that the indicator for urban facilities is very much arbitrarily defined and does not consider the differences in quality of the facilities.

Using the above criteria, the Central Board of Statistics (CBS) uses a more technical scoring system (see Firman, 1992, and Gardiner and Gardiner, 2006) to categorize a locality as 'rural' or 'urban'. Although such a system has its weaknesses (Rietveld, 1988, p.75-6; Firman, 1992; see also Gardiner and Gardiner, 2006), the classification system is still very useful in studying urbanization at the macro level of analysis.

This study employs simple indicators for analysis, including the proportion of urban population (level of urbanization), annual rate of total population and of urban population growth, percentage of employed persons by sector, and individual cities' population growth over the period 1980 to 2000. To measure the distribution of urban population in Indonesia, the proportion of urban population of the Jakarta Metropolitan Area (JMA), the largest concentration of urban population in Indonesia, over the total urban population in Java and in Indonesia is also employed, instead of applying the commonly used primacy index - the ratio of the population of the largest city over the second largest - since this index simply cannot be used for this purpose due to over-bounded urban areas of large cities, notably those in Java (see Mamas, et.al, 2001; Firman, 2003).

Apart from the introduction, this paper is organized into six parts: first, the theoretical context of urbanization in developing countries in the light of global economy is critically discussed; second, the underlying socioeconomic and political factors of recent urbanization in Indonesia are briefly discussed in order to provide a background to the study; third, the demographic characteristics and geographical patterns of urbanization are analyzed; fourth, the transformation of large cities' fringes is examined; fifth, the role of small towns and medium cities in regional development is discussed. The sixth part concludes the discussion.

The Urbanization in Developing Countries under the Global Economy

The history of development in the developed world shows that a higher level of urbanization can take place only when an economy has shifted in its structure, from agricultural to secondary and tertiary sectors (Lo and Salih, 1987). However, urban transitions in various parts of the developing world at

present are different from those experienced in the developed world a century ago (Gugler, 1996). At present, the developing countries are experiencing urbanization in a totally different global economic situation; urbanization is incomparably rapid, resulting in an unprecedented scale of urban change and a blurring of the traditional rural-urban distinction (Cohen, 2004).

Recent research on urbanization in developing countries has focused on impacts of globalization on urbanization. Globalization is defined as the process of expansion and deepening of the global market for commodities and goods, finance and services, which was greatly facilitated by the rapid development of transportation and communication technology and later by trade liberalization (Cho, 1997; see also Castells, 1996 and Willis, 2005). Moreover, the establishment of the World Trade Organization (WTO) in 1995 has greatly diminished trade barriers among countries, which in turn resulted in a big increase in exports and imports and therefore interconnections among large port cities in the world (see Mera, 2002). As Dicken (1992) maintains the process has resulted in the rapid growing integration of large cities into a global financial system and the global economy in general, which in turn has given birth to 'Global Cities', the term used to describe the development of large cities in the world in the context of global economic restructuring (Cho, 1997, p. 271ⁱⁱ). As Douglass (2001) argue, globalization has in turn resulted in urban spatial restructuring, characterized by spatial polarization in a few urban centers, the formation of large mega-urban regions around the centers and slow rates of urbanization in inland regions, notably the densely agricultural regions away from urban centers (see also Douglass, 2005/2006).

Elsewhere, the senior author has argued that the formation of 'Global Cities' in Asia is characterized by: (1) development of economic activities at a global scale; (2) division of functions between core and periphery in the cities; (3) shifting from single core to multi-cored cities; (4) agricultural land conversion on cities' peripheries and land use change in the center; (5) development of large-scale urban infrastructures, including airports and seaports, highways, telecommunication networks and other infrastructure; (6) substantial increase in the rate of land development; (7) high growth in the number of commuters and increases in commuting time and distance (Firman, 1999, p.450). The 'Global Cities', however, seem to disconnect from local economic activities, resulting in regional disparities and bring few if any positive impacts for local development. Another phenomenon of 'Global Cities' in Asia as Ng and Hill (2003) maintain is that the cities have indeed produced great economic wealth but their ability to deal with sustainability issues remains in

question, as clearly reflected in several large cities, including Tokyo, Hong Kong, Singapore, Taipei and Shanghai.

The major determining factor of urbanization and urban development in the world at present is a global network of cities that function as strategic sites for global economic operation. In fact, the cities serve as production sites for finance and the other leading industries of the world 'post-industrial period', and therefore function as centers for control, coordination, and servicing of global capital (Sassen, 1997a, 1997b, 2002). Many scholars argue that transnational capital has greatly affected the spatial patterns of urbanization in Asia (Lin, 1994; Cho, 1997; Douglass, 2000, 2001 and 2005/2006; Webster, 2001; Zhu, 2000). As Castells (1989 and 1996) maintains, urban systems should now be understood as a 'space of flows' rather than 'spaces of relative locations' (see also Short, 2002).

In spite of the growing research interest in urbanization during a process of rapid globalization, the empirical studies thus far have been largely focused on the cities in the developed world (see Friedman, 1986, 1995 and 2001; Knock, 2004; Sassen, 1991, 1994, 2001; Shacar, 1994). In fact, only a little is known about this process in cities of the developing world (Yeung, 1996; Yeung and Lo, 1996; Firman, 1998 and 1999; Gugler, 2002 and 2004; Ng and Hills, 2003).

One of the salient features of contemporary urbanization in developing countries is the high concentration of the urban population in a few cities, especially in large cities, while this tendency has been growing at an increasingly faster rate in the globalization era. In most Southeast Asian countries, the secondary and tertiary economic activities tend to locate in large cities, as the cities offer infrastructures and facilities as well as access to capital, labor and market, which in turn has concentrated economic activities, capital and people in large cities in the region. Advances in the transportation and communication technologies have greatly facilitated the flows of capital, people, and information from foreign countries to the Southeast Asian countries.

The urbanization in Southeast Asia is also characterized by the blurred distinction between 'rural' and 'urban'. Both agricultural and non-agricultural activities take place side by side in the adjacent areas of the urban centers, while the urban physical development extends beyond city administrative boundaries. McGee (1995) labels this phenomenon 'mega-urbanization' (see also Lin, 1994; McGee, 1995; Jones, 2002; Sit, 2005; Yang, 2005), whereas in his earlier work he calls this phenomenon '*Kotadesasi*' a phrase coined from

the Indonesian language (*Bahasa Indonesia*) meaning process of socio-economic and physical integration between urban areas (*Kota*) and rural areas (*Desa*) (McGee, 1991). A similar phenomenon also takes place in Latin America, including Mexico City (Aguilar and Ward, 2003), Buenos Aires and Sao Paulo (see Gilbert, 1993).

Impacts of Boom Economy, Crisis, and New Regional Autonomy and Fiscal Decentralization Policies

As in many other developing countries in Asia, recent urbanization in Indonesia is triggered by economic developments, notably in industry and services sectors, which tend to locate in large cities due to the availability of utilities such as water supply, electricity, seaports and airports, concentration of skilled labor and markets. Urbanization and economic development in most parts of Indonesia has been driven by domestic and direct foreign investment in the large urban areas.

The development in transportation and production technologies has largely facilitated the vertical and horizontal divisions of industrial production processes, which in turn have become the forces for the integration of the Jakarta Metropolitan Area (JMA) and other Indonesian large cities into the global economy (Firman, 1998; Douglass, 2000; see also Forbes, 2004). However, the large cities' development does not much strengthen linkages with smaller cities, as reflected in the disparity of economic development between rapidly growing large cities and stagnant small towns, notably in Java (Gardiner, 1997b).

The extent to which the JMA has been integrated into global economy has been closely examined in several studies (Firman, 1998, 1999 and 2002; Forbes, 2004). Until the end of 1990s, foreign direct investment in JMA, had been dominated by Japan and the newly industrialized countries, such as South Korea, Hong Kong and Singapore. The situation has not changed much into the mid 2000s. It should be noted however that most of the foreign direct invested industries have very weak linkages with the local economy, as they are in general footloose in nature. Moreover, as they intended only to exploit the relatively low wages in JMA, there were few economic multiplier effects.

JMA has been the most attractive area for domestic and direct foreign investment due to its great concentration of and access to mass markets, decision makers, pool of skilled workers and entrepreneurs. By the mid-1990s, Jakarta's share in domestic and foreign investment in Indonesia accounted for about 11% and almost 20% respectively, whereas the Province of West Java

accounted for 31.0% and 29.4% respectively. Nevertheless, both domestic and foreign direct investment in West Java was heavily concentrated in the Cities and Districts of Tangerang, Bekasi and Bogor, which are all part of JMA (Firman, 1998). It can also be noted that from 2000 to mid-2005, cumulative approved domestic and foreign direct investment in Jakarta City had reached respectively, Rp. 22,187.3 billion and US \$ 16,759.3 million and accounted for 7.65 and 23.70 per cent of the national total approved domestic and direct foreign investment (Central Board of Statistics, 2006).

Foreign direct investment has been utilized not only in the manufacturing sector, but also in the finance and other service sectors, which was clearly reflected in the growing number of foreign banks and other financial institutions operating in Indonesia's large cities such as Jakarta and Surabaya. The development of direct foreign investment in JMA has also been reflected in the growth of franchise businesses dominated by retail, food and beverages companies, mostly American ones.

The integration of JMA into the global economy has also been clearly shown in the growing international trade between Jakarta and other countries, particularly in imports. In fact, during the 1990s almost one-third of Indonesian exports and more than half of Indonesian imports have been routed through the Jakarta Tanjung Priok Jakarta International Seaports (Firman, 1998).

By the early 1980s, Indonesian macro-economic policy had shifted from import substitution, which was primarily aimed at developing industrial products for the domestic market (see Hill, 1994 and Douglass, 1997), to a more outward looking economy, as oil prices in the global market fell significantly and were consequently no longer sufficient to subsidize inefficient domestic industries. In this respect, the Indonesian government had launched a deregulation policy in the sectors of industry and finance during the mid-1980s to mid-1990s aimed at restoring macro-economic stability, including enhancing performance efficiency in the economic sectors, promoting domestic savings and export of non-oil commodities, and reducing the dependence on oil as the major source of revenues and export earnings. The policy, which was basically to simplify procedures and regulations in businesses, had positive impacts on the Indonesia's economic performance in the mid-1990s (Pangestu, 1996).

The deregulation policy is essentially an economic policy, and not intended as an intervention in urban development and urbanization. Nevertheless, its impact on the two cannot be underestimated. As a matter of fact, the deregulation policies have greatly spurred development of the large

cities in Java, as these cities are better equipped with the facilities and infrastructure needed for economic development, which in turn have reinforced disparities in urban development between Java and the outer islands.

Development in the sectors of industry, finance and services in Jakarta Metropolitan Area (JMA) and the other big cities, such as Surabaya, Bandung, Medan, Palembang and Semarang have in turn induced development in the property sector, especially the construction of shopping malls, hotels in the city center and luxurious housing estates in gated new towns in the city's fringes (see Hogan and Houston, 2001). Until recently, the property sector had been a lucrative business in large cities in Indonesia, most notably in Java.

Until the mid-1990s, economic growth had seemed to significantly contribute to urbanization and urban development in Indonesia, but the recent Asian economic turmoil has turned the two in the opposite direction, as the crisis had severely affected the physical and socioeconomic condition of the cities.

The Indonesian economic crisis was a very complex process, involving not only economic factors but also political factors related to bad governance in the government under the tenure of President Soeharto, which in turn had paralyzed the Indonesia's productive capacity (see Dick, 2001).

Economic activity, most notably JMA, has been hit hardest, resulting in a great contraction in economic growth. Concomitantly there was a rapid increase in the number of unemployed in the cities; many urban manufacturing, banking and service firms, including those in property sectors, which have been an engine for urban economic development in 1980s and 1990s, closed down and laid off workers, although there was no catastrophic or mass poverty as anticipated (Hill, 1999, 2000; see also Forbes, 2004).

According to Hugo (2000), the economic crisis in Indonesia affected both urban and rural areas. There was displacement of workers from the formal sectors and reduced income from informal sector jobs in the urban areas, due to falls in spending, whereas inflow of remittances in rural areas was greatly reduced (p.136).

The rate of economic growth of Jakarta City fell from 9.26% (1994/1995) to 9.09% (1995/1996), to only 5.03% for 1996/1997 and -7.0% in the fiscal year 1998-1999. Jakarta City per capita income dropped from Rp. 7.4 million to Rp. 6.0 million during 1997-1998. Overall employment in the city decreased by almost 178,000 that is, from 3646.3 to 3468.7 thousand over the period (Firman, 1999).

The situation in Jakarta and other big cities in Indonesia at the time basically reflected misguided national, regional and urban development during the period 1970-1998, when economic growth was considered as the single ultimate goal of development, neglecting sociopolitical progress. The most serious mistake which brought the Indonesian economy into such a big crisis was a wide gap between foreign debt and the national capacity to save capital (Kwik, 1999), and an overestimate of the role of direct foreign investment in economic development. Nevertheless, this situation is not specific only to large cities in Indonesia, but also to those in other countries in Southeast Asia, such as Bangkok (Chatterjee, 1998; Gould and Smith, 1998), even in South Korea (Kim, 2001). The experience of Latin American countries shows that economic crises could have severe impacts on urbanization and urban development, including a huge contraction in the urban economy, rises in urban poverty incidence and unemployment, and reduced public expenditure on infrastructure, municipal services and housing (Latapi and de la Rocha, 1995; de Oliveira and Roberts, 1996).

For almost five decades, from 1950 to 1998, the central government concentrated the decision making process at the top, while local government could not decide important policies but only implement the decision (Crane, 1995; Devas, 1997; Brodjonegoro, 2006). Under this centralized system, urban and regional development programs, as with other policy fields, were largely under the control of the central government through presidential decrees and ministerial regulations. In mid 1999, the Indonesian Parliament passed Laws 22/1999 and 25/1999 regarding regional autonomy and fiscal decentralization, during a period of severe economic crisis and socio-political uncertainty. These laws were subsequently updated by Laws 34/2004 and 35/2004 five years later. Decentralization is basically a transfer of a significant degree of responsibility and authority for public revenue and expenditures from the central government to the local government (Alm et al, 2001, p.84). It is believed that wider regional autonomy could encourage the local communities and local government to develop their own initiatives to spur urban and regional development (Rondinelli, 1990).

These two laws are primarily intended to avoid a break up of Indonesia into several small countries, due to the separatist sentiment in the outlying regions in Indonesia in the late 1990s. The laws are also hoped to bring the government closer to the people and to empower local communities. As Brodjonegoro (2001) maintains, the new regional autonomy and fiscal decentralization policy for Indonesia is complex and extensive, and perhaps over ambitious, given the fact that this country had almost no experience of

such policy (p.4). He also argues that this policy has been hastily formulated without a clear and robust grand strategy (Brodjonegoro, 2006). Nevertheless, Indonesia has now entered a sociopolitical reform and decentralization era, but until very recently, the early transition process has been characterized by an uncertain socioeconomic situation, a volatile political situation, and tensions and internal conflicts in several regions.

The new laws on regional autonomy and fiscal decentralization could have significant impacts on urbanization and urban development, because under these two laws, local government, i.e., District (*Kabupaten*) and Municipality (*Kota*) are supposed to receive a greater share of income and property tax and will have a much greater discretion to manage their own natural resources, including oil and timber. Consequently, the natural resource rich regions, including Aceh Nanggro Darussalam, East Kalimantan, and Papua might potentially experience rapid urbanization in the future. Nevertheless, at present, many local governments, local communities and local political leaders are still in state of euphoria, claiming that such resources are their exclusive possession, but do not really understand how they could manage them efficiently and effectively and how they could utilize the resources for basic needs provision and public service improvement in the local areas (see Firman, 2004). The role of local governments and political leaders will be critical for regional autonomy and fiscal decentralization policy to succeed in Indonesia in the near future. Overall, by the mid-2000s progress on the implementation of regional autonomy and fiscal decentralization in Indonesia has been patchy with no clear division of responsibilities being defined for local and central government.

Demographic and Geographical Patterns of Urbanization:

Despite rapid urbanization, Indonesia still belongs to the group of countries having a low level of urbanization. The fact is that out of 20 countries with a population of above 50 million in 2006, Indonesia's level of urbanization still ranks at the low-middle level, just above China, Thailand, Vietnam, India, Ethiopia, Pakistan, Congo Democratic Republic and Bangladesh (see Population Reference Bureau, 2006).

There was only one city with a population of more than one million people in Indonesia in 1950, namely Jakarta. The number had increased to four by 1980, with the addition of Surabaya, Bandung and Medan. Moreover, the number had increased further to eight by 1990, with the addition of Semarang,

Yogyakarta (including Sleman), Palembang, and Ujung Pandang (Figure 1). The National Population Census 2000 recorded that the number had reached ten, with the additional of Tangerang and Depok to the group (CBS, 2000). Interestingly, these last two cities are located within Jakarta Metropolitan Area.

Indonesia's total urban population increased from 55.4 to 85.2 million over the period 1990 to 2000 (Table 2) and is estimated to have reached close to 95 million by 2006 (Population Reference Bureau, 2006). The level of urbanization in Indonesia has continued to increase since 1920, when the level of urbanization had only reached 5.8 per cent (Soegijoko and Bulkin, 1994). When Indonesia became independent in 1945, the level of urbanization reached about 10 per cent (Hugo, 1996), but it then increased steadily from 22.3 per cent to 30.9 per cent over the period 1980-1990 (Firman, 1997), and had reached 42.0 per cent by the year 2000 (Tables 1 and 2). In other words, at present almost half of Indonesians live in urban areas. In contrast, during 1980-1990 rural population also increased from 114.5 to 122.8 million in 1990, but then declined to 119.4 million in 2000. Indonesia's urban population growth rate reached 5.36 per cent annually during the period 1980-1990, but it declined to 4.40 per cent per year over the period 1990-2000 (Table 2). In contrast, the total population growth rate, including both urban and rural population, had reached a rate of 1.97 per cent per year and 1.35 per cent over the period 1980-1990 and 1990-2000 respectively.

Clearly, Indonesia has been experiencing a fast and massive transformation from predominantly rural to an urban society or the last three and half decades (see also Gardiner and Gardiner, 2006).

More than one-third (35.2%) of urban population growth in Indonesia during 1980 to 1985 resulted from natural increase, while the remaining 64.8% was due to migration and reclassification (ESCAP, 1993:II-16 in Firman, 2004). It is estimated the figures were much the same, 37% for natural increase and 63% for migration and reclassification, over the period 1990-1995 (see Firman, 1997). Nevertheless, the World Bank (2003 in Gardiner and Gardiner 2006) estimates that the reclassification from rural to urban localities has been a major factor in the rapid urban population growth in the 1990s, that is around 30 to 35%.

Table 2
Total and Urban Population in Indonesia, 1980-2006

	Java	Outer Islands	Indonesia
1980			
Total Population (000)	91 269.5	55 665.4	146 934.9
Urban Population (000)	22 929.4	9 916.4	32 845.8
Proportion of Urban Population	0.251	0.177	0.224
Share of Urban Population (%)	69.8	30.2	100.0
1990			
Total Population (000)	107 581.3	71 049.9	178 631.2
Annual Rate of Population Growth 1980-1990 (%)	1.65	2.47	1.97
Urban Population (000)	38 341.5	17 092.3	55 433.8
Proportion of Urban Population	0.357	0.238	0.310
Share of Urban Population (%)	69.2	30.8	100.0
Annual Rate of urban Population Growth 1980-1990 (%)	5.28	5.95	5.37
2000			
Total Population (000)	120 429.3	83 026.7	203 456.0
Annual Rate of Population Growth, 1990-2000(%)	1.11	1.56	1.35
Urban Population (000)	8 874.4	26 369.8	85 244.2
Proportion of Urban Population	0.487	0.328	0.419
Share of Urban Population (%)	69.1	30.9	100.0
Annual rate of Urban Population Growth, 1990-2000 (%)	4.38	4.43	4.40
2006 (Estimate)			
Total Population (000)	-	-	225.500.0
Annual Rate of Population (%)			1.40
Urban Population	-	-	94.710.0
Proportion of Urban Population			0.42

Source : Central Board Of Statistics, 1990 and 2001 in Firman (2004), and Population Reference Bureau (2006)

According to Gardiner (1997a) reclassification of rural to urban had contributed as much as 30.3% and 39.6% to the population growth rates in Jakarta Metropolitan Area (JMA) and Surabaya Metropolitan Area respectively over the period 1980-1990, which in general reflects a spatial transformation in and around urban centers in Indonesia. The figures are even higher for Bandung Metropolitan Area and Medan Metropolitan Areas, i.e., 43.2% and 40.5% respectively (pp. 124-125).

Employment in urban areas in Indonesia in 2000 is highly dominated by services sectors, that is, almost 72% of total employment (Firman, 2004), which

is about the same as that in 1990, that is, 71.6% (Hugo, 1996, pp. 135). In other words, almost three-quarter of employment opportunities in urban areas in Indonesia are in the service sectors, which most likely reflects the dominance of informal sectors in absorbing job opportunities in urban areas. This trend suggests that the urban areas in Indonesia tend to function as centers of service activities more than of any other economic activities (see also Jones and Mamas, 1996).

The proportion of employed persons living in cities was 38.7% in 2000 (Firman, 2004), much higher than that of 1990, i.e. 26.7% (Hugo, 1996, p.134). Although this proportion is less than the proportion of urban population, i.e., 41.9 per cent (Table 2), it depicts a tremendous increasing role of the cities as a source of employment opportunities during the period of 1990-2000.

The share of urban population between the Island of Java and the outer islands has remained constant since 1980 (Table 2), that is, almost 70% for Java and 30% for the outer islands. The total urban population in Java steadily increased from almost 23 million to nearly 59 million over the period 1980-2000, whereas that of the outer islands increased from about 10 million in 1980 to 26 million in 2000, primarily due to reclassification of locality status from 'rural' to 'urban' (Surbakti, 2002). Indeed, Java is still the site of the major agglomerations of urban population in Indonesia.

By 2000, the urban proportion of the population in Java had reached almost half (48.7%), whereas it was only about one-third (32.8%) on the other islands (Table 2). Nevertheless, the proportion of urban population in some provinces outside Java is significantly higher than the national rate, including North Sumatra (42.4%), Riau (43.7%), East Kalimantan (57.6%), and Bali (49.8%) (Figure 1 and Table 3). The Province of North Sumatra is a huge exporter of agricultural plantation produce, whereas Riau and East Kalimantan are natural resource rich regions, notably oil and gas. Bali is one of the most frequented tourism areas in the world (see Firman, 2004)..

The proportion of urban population of the Jakarta Metropolitan Area (JMA) over the total urban population in Indonesia and in Java had reached more than one-fifth (21.2%) and nearly one-third (30.7%) in 2000 respectively (Table 4, Firman, 2004). On the whole, this indicates the dominance of JMA as a concentrator of urban population and secondary and tertiary economic activities in Indonesia, which might also reflect the integration of JMA into the global economy (see Firman, 1998 and 2002; Douglass, 2001, Forbes, 2004).

Gardiner and Gardiner (2006) estimate that the total population and urban population in JMA have reached 23.9 million and 18.9 million respectively (p.8).

The annual population growth rate of the million plus cities in Indonesia is lower than the average national population growth rate of 1.35% annually, with the exception of Makasar (Ujung Pandang) (1.45%) and Palembang (2.30%), the capital of the Province of South Sumatra, one of the oil rich-region in Indonesia (Figure 1). It is interesting to observe that both South Jakarta and Central Jakarta experienced a negative annual population rate of growth, that is, - 0.67% and - 2.01 per cent respectively over the period 1990-2000. This might also reflect the declining Indonesia total fertility rate from 5.7% to 2.9% over the period 1970 to the mid 1990s (Adioetomo, 1997), and declining further to 2.4% by 2006 (Population Reference Bureau, 2006).

Table 3
Percentage of Urban Population by Province in Indonesia, 1980-2000

No.	Province	1980	1990	2000
1.	Nanggroe Aceh Darussalam	8.9	10.	23.6
2.	North Sumatra	25.5	35.5	42.4
3.	West Sumatra	12.7	20.2	29.0
4.	Riau	27.2	31.7	43.7
5.	Jambi	12.7	21.4	28.3
6.	South Sumatra	27.4	29.3	34.4
7.	Bengkulu	9.4	20.4	29.4
8.	Lampung	12.5	12.4	21.0
9.	Bangka Belitung	-	-	43.0
10.	Jakarta	93.7	100.0	100.0
11.	West Java	21.0	34.5	50.3
12.	Central Java	18.7	27.0	40.4
13.	Yogyakarta	22.1	44.4	57.7
14.	East Java	19.6	27.5	40.9
15.	Banten	-	-	34.2
16.	Bali	14.7	26.4	49.8
17.	West Nusa Tenggara	14.1	17.1	34.8
18.	East Nusa Tenggara	7.5	11.4	15.9
19.	West Kalimantan	16.8	20.0	25.1
20.	Central Kalimantan	10.3	17.6	27.5
21.	South Kalimantan	21.4	27.1	36.3
22.	East Kalimantan	40.0	48.8	57.6
23.	North Sulawesi	16.8	22.8	37.0
24.	Central Sulawesi	9.0	16.4	19.7
25.	South Sulawesi	18.1	24.5	29.4
26.	Southeast Sulawesi	9.4	17.0	20.8
27.	Gorontalo	-	-	25.5
28.	Maluku	10.9	19.1	25.9
29.	North Maluku	-	-	29.5
30.	Papua	21.4	24.1	22.2
	Indonesia	22.3	30.9	42.2

Source: Central Board of Statistics, 2000

Note: Bangka Belitung, Banten North Maluku and Gorontalo are new Provinces, established in 1999-2000, separated from the Provinces of South Sumatra, West Java, Maluku and North Sulawesi respectively

Table 4

Urban Population and Total Population in Jakarta Metropolitan Area,
Java and Indonesia, 2000 (in thousands)

	Urban Population	Total Population	% of Urban Population
Jakarta City	8 347.1	8 347.1	100.0
Jakarta Metropolitan Area (JMA)	18 085.3	20 438.8	88.5
Java	58 874.4	120 429.3	48.7
Indonesia	85 244.2	203 456.0	42.0
Proportion of JMA of Java	0.307	0.170	
Proportion of JMA to Indonesia	0.212	0.100	

Source: Central Board of Statistics, 2001 (in Firman, 2004)

Development of Large Cities' Fringe Areas

It would be misleading to interpret the slowing of the population growth rate in large Indonesian cities without taking into consideration the population growth of the adjacent Districts (*Kabupaten*) (see also Jones, 2001 and 2002). The fact is that the rate of population growth of the Districts adjacent to the large cities could be quite a lot higher than that of the core city. This is particularly true for Districts and Cities surrounding Jakarta, Surabaya, Bandung and Medan. For instance, the Districts of Bekasi and Tangerang, which are located on the outskirts of Jakarta City, had an annual population growth rate of 4.70% and 4.13% respectively over the period 1980-1990 and 1990-2000 (West Java Office of Central Board of Statistics, 2001). This was largely a result of the migration of people from various regions, including from outside Java, into these Districts, which are now amongst the largest industrial centers in Indonesia (Firman, 2004). In fact, over the period 1995-2000, nearly sixty per cent of the more than half a million recent inter-provincial migrants to the Districts of Bogor and Bekasi were from Jakarta City, the core of the Jakarta Metropolitan Area (JMA).

According to Mamas, Jones and Sastrasuanda (2001, p.6) such migratory flows from the urban core to the outskirts are a very important element of population growth in big cities in Indonesia. In fact, a study on the urban fringe development in JMA (Browder, Bohlan and Scarpaci, 1995) shows that many residents of the urban fringes of Jakarta are people with middle and higher income levels who moved from the core city area, i.e. Jakarta, while in comparison there were very few people from the rural areas who moved there

(see also McGee, 1994). It should be noted, however, that the high population growth rate in Jakarta's adjacent areas might not only be due to rural to urban migration but instead due to the reclassification of rural to urban area.

The fringes of JMA have been integrated, functionally and spatially, into the economy of Jakarta City, and have few linkages with the Javanese rural economies. Due to the rapid population growth in the fringe areas, the population of Jakarta City as a proportion of JMA population declined from 54.6% to 43.2% over the period 1980-1990 and decreased further to 39.6% in 2000 (Firman, 2003). Likewise, the proportion of the population of Surabaya city to the population of the Surabaya Metropolitan Area (*Gerbangkertasusila*) declined from 34% 31.8% over the period 1990-2000.

The urban transformation in the metropolitan areas in Indonesia can also be identified in the changes in number and percentage of urban localities in the areas (Table 5). In JMA, for instance, the number of urban localities increased from 730 to 1035 over the period 1999-2005, whereas the percentage of urban localities over all localities increased from 39.9% 56.0%. In Surabaya Metropolitan Area (*Gerbangkertasusila*) the number of urban localities increased from 439 to 779 over the period, increasing the total percentage of urban localities from 22.5% to 40.0%. Similarly, in Bandung Metropolitan Area (*Bandung Raya*), also in Java, the urban localities increased from 266 to 412 over the period 1999-2005, resulting in an increase in the percentage of urban localities from 31.0% to 47.7%. A similar trend is observable in metropolitan area located on the outer islands. Medan and Makasar also experienced the same phenomenon, although at a much slower rate.

The spatial development of the urban fringes in Java tends to form urban belts that connect the large cities (Firman, 1992 and 2003; Firman and Dharmapatni, 1995). The main urban belts include those of Jakarta - Bandung; Cirebon - Semarang; Yogyakarta - Semarang; and Surabaya - Malang (see also Hall and Pfeiffer 2000). The urban belt development is characterized by an increasing mixture of rural economic activities, notably agriculture, with urban industrial activities. This in turn has resulted in a blurring of the distinction between 'rural' and 'urban', both socio-economically and physically, reflecting increasingly intensive links between the cities, the fringes and the villages.

Table 5

Number of Urban and Rural Localities, 1999-2005

No.	Cities and Districts	1999			2005		
		Urban	Rural	Total	Urban	Rural	Total
1.	JMA (Jabodetabek)	730	1.099	1.829	1.035	812	1.847
	Jakarta City	265	-	265	267	-	267
	Bodetabek	465	1.099	1.564	768	-	1.580
2.	Bandung Raya	266	593	859	412	451	863
	Bandung City	133	6	139	154	-	154
	District Bandung And Sumedang	133	587	720	258	451	709
3.	Gerbangkertasusila	439	1.510	1.949	779	1.170	1.949
	Surabaya City	145	18	163	163	-	181
	District Surrounding Surabaya City	294	1.492	1.786	616	1.170	1.768
4.	Medan Raya	175	13	188	185	3	188
	Medan City	151	-	151	151	-	151
	Binjai	24	13	37	34	3	37
5.	Mamminasata	157	291	448	178	295	473
	Makassar City	134	8	142	137	6	143
	District Surrounding Makassar City	23	283	306	41	289	330

Source: Calculated from Gardiner and Gardiner (2006)

The Role of Small Towns and Medium Cities

The development of small towns and medium cities, i.e., those with a population between 100,000 to 1 million people, reveals that the annual population growth rates of these small and medium towns in Java is relatively low, far below the average national population growth rate of 1.35% annually over the period 1990-2000. The exceptions are the cities of Bogor, Sukabumi and Salatiga, which experienced high annual population growth rate due to the expansion of the administrative boundaries. Some towns have even had a negative rate of annual population growth, such as Surakarta, Yogyakarta, Kediri, Madiun and Magelang (Table 6). Hinderink and Titus (2002) argue that small towns in Central Java play an insignificant role as centers for collection and distribution of goods. Peasants and farmers are dealing directly with the suppliers, tradesmen and wholesalers from the large cities, bypassing the small towns and rural centers (see also Titus, 1993; Gardiner, 1997b; van der Wouden, 1997). The small towns in Central Java as well as in West and East Java are often called 'Pension Towns' because they are inhabited by a large number of retired civil servants and old people. The population in small and

medium towns outside Java, in contrast, increased at a growth rate higher than that in towns in Java.

It should be noted Batam City on the Province of Riau had an extremely high annual population growth of 15.63% per year (Table 6). The city is located in the trans-border growth triangle of 'Sijori' (Singapore-Johor-Riau), and has been developed as a center for industrial, service, and tourism activities, taking advantage of the geographical proximity to Singapore, which is one of the largest services and financial centers in world. As a result, the city of Batam recently experienced a high influx of population from various regions in Indonesia, notably Java. Similarly, the City of Pekanbaru, the capital of the Province of Riau, one of the richest oil producing regions in Indonesia, experienced a high population growth rate over the period 1990-2000 - almost 4% per year, reflecting the growing economic activity in the Province (Firman, 2004). In contrast to the City of Batam and Pekanbaru, the City of Ambon, the capital of the Province of Maluku, experienced a negative population growth rate - minus 3% per year - due to recent community conflicts in the city as well as in the Provinces, resulting in the deaths of thousands of people and an exodus of refugees.

In summary, the small and medium towns outside Java have a more important role as centers for economic activities, notably agriculture and plantations, and as centers for natural resource exploitation, including timber and mineral resources, compared with those in Java, due to the dominant roles of the latter's large cities. In fact in general the population growth of small and medium towns outside Java has been much faster than such towns in Java (Table 6).

Table 6
 Cities in Indonesia with Population
 Between 100.000 and -1.000.000, 1990 and 2000

City	Province	Population (000)		Rate of Growth (%)
		1990	2000	
JAVA				
Malang	East Java	695.6	749.8	0.78
Bogor	West Java	271.7	743.5	10.97(*)
Surakarta	Central Java	504.1	488.8	-0.32
Yogyakarta	Yogyakarta	412.4	395.6	-0.43
Cirebon	West Java	254.9	269.2	0.57
Pekalongan	Central Java	242.8	261.5	0.77
Sukabumi	West Java	119.9	252.3	7.99(*)
Kediri	East Java	249.8	242.2	-0.32
Tegal	Central Java	229.7	236.3	0.29
Probolinggo	East Java	177.1	192.6	0.87
Pasuruan	East Java	152.4	168.2	1.02
Madiun	East Java	170.2	163.9	-0.39
Salatiga	Central Java	98.0	150.6	4.53(*)
Blitar	East Java	119.0	119.3	0.03
Magelang	Central Java	123.2	116.0	-0.62
Mojokerto	East Java	99.9	109.1	0.92
THE OUTER ISLANDS				
Ujung Pandang	South Sulawesi	944.7	1 091.6	1.51
Padang	West Sumatera	631.5	711.3	1.24
Bandar Lampung	Lampung	636.7	743.1	1.61
Pekanbaru	Riau	398.7	582.2	3.99
Denpasar	Bali	n.a.	522.8	n.a.
Samarinda	East Kalimantan	407.3	521.5	2.59
Banjarmasin	South Kalimantan	381.3	481.4	1.05
Pontianak	West Kalimantan	387.4	473.0	1.82
Batam	Riau	106.6	434.3	15.63
Jambi	Jambi	339.9	416.8	2.13
Balikpapan	East Kalimantan	344.4	406.8	1.74
Manado	North Sulawesi	321.0	371.2	1.51
Palu	Central Sulawesi	n.a.	268.3	n.a.
P. Siantar	North Sumatera	219.3	240.8	0.97
Bengkulu	Bengkulu	170.3	231.7	3.23
Banda Aceh	Aceh	184.7	219.0	1.78
Binjai	North Sumatera	181.9	213.2	1.66
Ambon	Maluku	276.9	206.2	-3.00
Dumai	Riau	n.a.	173.0	n.a.
Jayapura	Papua	n.a.	172.7	n.a.
Ternate	North Maluku	n.a.	163.5	n.a.
Palangka Raya	Central Kalimantan	112.6	160.0	3.70
Gorontalo	Gorontalo	119.8	135.1	1.25
Tanjung Balai	North Sumatera	108.2	132.0	2.08
Kupang	East Nusa Tenggara	141.7	n.a.	n.a.
Jayapura	Irian Jaya	130.1	n.a.	n.a.
Pangkal Pinang	South Sumatera	113.1	125.4	1.07
Tebing Tinggi	North Sumatera	116.8	125.1	0.71
Kendari	Southeast Sulawesi	103.0	n.a.	n.a.
Pare-Pare	South Sulawesi	101.5	107.9	0.63

Source : Population of Indonesia, 2000. Series LBL1.1, Central Board of Statistics, Jakarta

Note : (*)due to expansion of administrative boundary.

Concluding Remarks

This study has examined the pattern of urbanization in Indonesia not only as a mere demographic phenomenon, but also as a reflection of broader socioeconomic and political change. Although this study focuses on urbanization in Indonesia, it has exemplified how the pattern of urbanization in developing countries is, as many scholars argue, greatly affected by the global economy (McGee and Robinson, 1995; Yeung and Lo, 1996; Douglass, 2000; Douglass, 2001; Douglass, 2005/2006; Gugler, 1996; Gugler, 2002; Webster, 2001; Aguilar and Ward, 2002; Sit 2005; Yang, 2005). Admittedly, however, there are some constraints in using census data for studies of urbanization, including the problem of defining what constitutes a rural or an urban area, and the over-bounded problem of urban areas of large cities.

The national economic development policies of the 1980s until the mid 1990s, which focused on the promotion of non-oil product exports, has greatly influenced urbanization and urban development in Indonesia. Although the policies were not intended as an intervention in city and regional development, nonetheless they promoted development of large cities, especially those in Java, as the cities became equipped with supporting facilities and infrastructure. However, the policies do not generate urban linkages that would channel the development to smaller urban centers. The recent economic crisis had negative impacts on urbanization and urban development in Indonesia, most notably in the rapid increase in the number of the poor and unemployed in the urban areas. Meanwhile, impacts of the new regional autonomy and fiscal decentralization policy on the pattern of urbanization are yet to be seen, simply because the policy has been just implemented.

Almost half of Indonesia's population lived in urban areas by 2006. However, as in most developing countries, urbanization in Indonesia is still characterized by heavy concentration of urban populations in a few large cities. The fact is that more than one-fifth of the Indonesian urban population lives in Jakarta Metropolitan Area (JMA), which may reflect an integration of JMA (as well as Indonesia's other large cities) into the global economy (Firman, 1998, 1999 and 2002; Forbes, 2004) and also suggests an inter-urban disparity between JMA and other cities, and between large and smaller cities.

Differentiation of urban and rural areas in Java is increasingly blurred, with intensive links between the two. The fringes of large cities are experiencing rapid population growth, whereas the cores are undergoing much slower population growth. This reflects the spatial transformation in and around urban centers in Java. Meanwhile the spatial development of cities in Java is shaping

an urban belt connecting them all, identified by McGee (1995) as “Mega-Urbanization”, a pattern of urban development that can be seen in other developing countries, including Mexico, Columbia and China (see Brenan 1999; Brennan-Galvin, 2001; Douglass, 2001; Henderson, 2002).

The intermediate cities on the outer islands have a relatively high population growth rate compared to cities of similar scale in Java. This suggests that these towns and cities are playing a more significant role as centers for socio-economic developments as opposed to those in Java. The new regional autonomy and fiscal decentralization policy is expected to spur urban development on the outer islands.

Overall, the study clearly indicates that Indonesia’s urbanization patterns (2000-2006) reflect a continuity over the period from 1980 to 2000 (see Firman, 1997 and 2004). It also indicates an integration of Indonesia’s large cities, most notably Jakarta Metropolitan Area (JMA), into the global economy. Nevertheless, one can expect that under the new regional autonomy and fiscal decentralization, Indonesia’s pattern of urbanization might be greatly changed in the near future. This change could be characterized by a declining level of urban primacy, high urban population growth and faster urban development in resource-rich regions in the outer islands, notably in the Provinces of East Kalimantan, North Sumatra, North Sulawesi and Riau (Figure 1), as the cities in those Provinces could attract people from Java responding to employment opportunities the cities could offer as centers of natural resources exploitation.

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¹ Those facilities include primary school or equivalent; junior high school or equivalent; senior high school or equivalent; cinema; hospital; maternity hospital/mother-child hospital; primary health care center/clinic; road that can be used by three-or four-wheeled motorized vehicles; telephone/post-office agency, market with buildings, shopping center; bank; factory; restaurants; public electricity; party-equipment renting services.

¹ The Department of Geography at the University of Loughborough has established a Globalization and World Cities Study Group and Network (GaWC <http://www.lboro.ac.uk/gawc>). The study Group has produced a large number of Research Bulletin on many aspects of Global and World Cities

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