

1.4

Shrinking Cities

The history of cities has not been dictated exclusively by urban growth; a long-term perspective on demographic and economic changes, particularly in the developed world, shows that, historically, cities have experienced boom and bust cycles over time, and in some places, decline and population contraction result in permanent alterations to city structures.

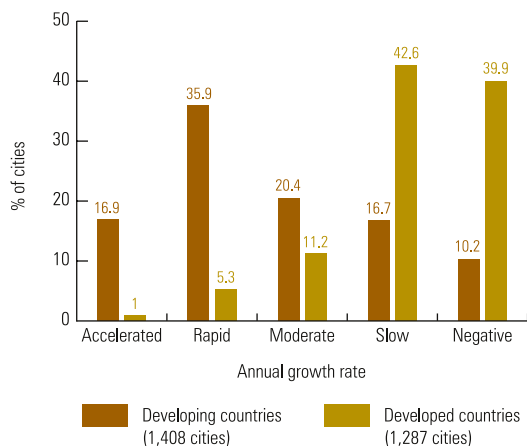
Cities may expand or contract in size and importance; their growth and decline is dependent on a variety of historical, economic, political, and demographic factors. While some cities are growing more rapidly than others, the widespread assumption that increasing global urbanization means that all cities are growing is false; in fact, evidence shows that in all regions of the world, and especially in the developed regions, many cities are actually shrinking in size.

Although slow or negative urban growth is overwhelmingly a developed-world phenomenon, it is also occurring in developing countries. A UN-HABITAT analysis of 1,408 cities¹ in the developing world showed that 143 cities, or 10.2

per cent of the sample, experienced a reduction in population (i.e., recorded negative growth rates) between 1990 and 2000. Rapid or accelerated urban growth is still the norm in most regions of the developing world, however: more than half of the cities in the sample (53 per cent) have been growing at an accelerated or rapid pace since the 1990s²; 17 per cent of these cities experienced an accelerated growth rate of more than 4 per cent per year, while 36 per cent saw rapid annual growth rates of between 2 and 4 per cent).

It may seem paradoxical that in a period of rapid urban growth, some cities in the developing world are actually shrinking. The negative growth trend is largely associated with cities in North America and Europe, where the number of shrinking cities has increased faster in the last 50 years than the number of expanding cities. In the United States alone, 39 cities have endured population loss, while in the United Kingdom, Germany and Italy, 49, 48 and 34 cities, respectively, shrank in size between 1990 and 2000. Another recently observed trend is the increase in the number of cities

FIGURE 1.4.1: PROPORTION OF CITIES EXPERIENCING ACCELERATED, RAPID, MODERATE, SLOW AND NEGATIVE GROWTH RATES IN THE DEVELOPING AND DEVELOPED WORLD IN THE 1990s.



Source: UN-HABITAT, Global Urban Observatory, 2008
Data are from UN Statistics Division, Demographic Yearbook, 1990-2005, and UN Population Division, World Urbanization Prospects, 2005

TABLE 1.4.1: DECLINING CITIES IN THE DEVELOPING WORLD (1990-2000)

Region	No. of cities experiencing declining populations (from 1990 to 2000)	Population loss (millions) (1990-2000)
Africa	11	0.37
Latin America and the Caribbean	46	2.8
Asia	86	9.7
China	50	6.8
India	16	0.7
Total	143	13

Source: UN-HABITAT, Global Urban Observatory, 2008.
Data from United Nations Statistical Division, Demographic Yearbook, various years (various years, 1985 and 2004)
Note: Data refers to cities of more than 100,000 inhabitants experiencing a real decline in their populations and not just a slowing down of urban growth rates.



▲
Kiev, Ukraine: A number of cities in transition countries are suffering from population loss.
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losing population in countries of the former Soviet bloc. Nearly 100 Russian cities experienced negative growth in the 1990s; in Ukraine, 40 cities experienced population loss.

The phenomenon of declining populations in cities of the developing world is relatively new, an emerging trend that is not yet as prevalent as it is in the developed world. Population loss may be, however, a prelude to a new urban trend that is starting to unfold in the developing world, signaled by the fact that 143 cities experienced the loss of 13 million people from 1990 to 2000. More than half of this population loss (6.8 million people) occurred in Chinese cities, while roughly 16 per cent (2.1 million people) of the population loss occurred in other Asian countries. In Latin America and the Caribbean, the total population loss between 1990 and 2000 amounted to 2.8 million people, while in Africa the figure was 370,000.³

The paradox of shrinking cities in regions where urban growth rates are generally high could be explained by a

variety of factors. In some cases, cities start to experience population loss when they cease serving as primate cities; others may lose populations to more dynamic cities that offer more opportunities and attract more residents. Deteriorating living conditions and urban decay may also contribute to population loss as residents seek opportunities in other cities that offer a higher quality of life. In some countries, the core of the declining city begins to contract or to become economically disassociated from the satellite cities emerging around it – a phenomenon known as “the doughnut effect”. Jakarta, the capital city of Indonesia, experienced annual growth rates of -0.7 per cent per year from 1995 to 2003, while the population of suburban areas – commonly known as Bodetabek – increased dramatically. The neighbouring city of Bogor, for instance, experienced a phenomenal growth rate of 13.2 per cent per year during the same period. People with sufficient money, jobs and energy to move outside of the city were attracted by the better living environments provided

by suburban enclave housing; simultaneously, the poor in Jakarta were relocated to the fringe areas to make room for the expansion of the formal sector in the central city.⁴

A similar phenomenon is evident in Seoul, which grew from a small, unknown capital of the Republic of Korea to one of the world's large-population cities. Seoul started experiencing negative growth at a rate of -0.7 per cent per year in the 1990s. This transformation came about in a context of intensive suburbanization and sprawl into the neighbouring Gyeonggi Province, which received 64 per cent of Seoul's emigrants in 2005.⁵ In other cities, such as Shanghai in China, in-migration is responsible for much of the growth of the city, as natural population growth has been declining since 1995. In China, rapid urban growth rates in one part of the country are accompanied by slow or negative urban growth rates in other parts of the country. This is not only an outcome of demographic changes and population mobility, but in many cases is associated with uneven regional development.

Understanding which cities are experiencing a boom in terms of economic and demographic growth, and which cities are going through economic and population decline, is important for maximizing gains, locating or relocating investments and opportunities, and for planning for more sustainable and balanced regional development. Knowing which cities, parts of cities, metropolitan areas, and even regions are not growing – or are experiencing population loss – is essential for policymakers and urban planners, who need accurate data to anticipate trends, design recovery policies and rethink strategies for bringing opportunities to cities and preventing excessive out-migration.⁶

Growth and contraction are not two different phenomena; they are two sides of the same coin of urban change.⁷ Evidence about how these dual trends are changing urban areas today

can help shift thinking from a broad assumption that all cities are growing dynamics of city growth that are necessary for improving quality of life in all cities.⁸ City and regional planning requires new methods and techniques that respond to urban development, expansion and growth management, but also new methods and techniques that respond to decline or out-migration. “Smart planning for growth” should be combined with “smart planning for contraction” if more harmonious urban and regional development is to be achieved.

The phenomenon of shrinking urban populations can be perceived as a sign of a new era in the history of some cities, in which the initial impulse of all-embracing and ever-accelerating urbanization gives way to a more complex, subtle and ambivalent process.⁹

Shrinking cities are often associated with economic and political failure. Until recently, many European cities were reluctant to even admit that they were shrinking in size.¹⁰ The primary assumption was that people who move out of cities “vote with their feet”, making judgments about the quality of life in the cities they leave behind. This is true to some extent: when a city shrinks in size, the reasons are usually economic. In most shrinking cities, unemployment is high and business opportunities are either unexploited or unavailable.¹¹

Yet, urban decline occurs even in regions that prospering. In some cases, the reasons have to do with urban environmental degradation, inner-city decay and suburbanization. The reality today is that not even big urban centers are protected from population loss. They are also threatened by some of the urban and environmental manifestations of economic and population decline, such as abandonment of residential areas and obsolete industrial areas, wastage of infrastructure and deterioration of the inner city, among others.



▲ Years of civil war in Afghanistan led to abandonment of residential and commercial areas in cities such as Kabul.
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Planning for growth while anticipating decline

In order to arrest out-migration from cities, policymakers and urban planners should consider the following:

- Management of shrinking cities requires innovative skills and strategies for “keeping people”, or containing population flight.
- Flexible design and placement of assets (such as industrial infrastructure, commercial buildings, and infrastructure for water, sewage, electricity, and industrial land) facilitate transformation into new uses when necessary.
- Regional connectivity and networking schemes aid cooperative public policy in changing urban areas.
- Public-private partnerships allow for innovation, renewal and for adapting fiscal bases of cities.
- Knowledge transfer and economic diversification assist regions in moving from outdated economic activities to new businesses and sources of revenue.
- Urban policies should facilitate planning for industrial environmental impacts in the declining phases of cities, and for management of the environmental legacy of industrial activities.
- Issues surrounding the environmental legacy of shrinking cities are a global phenomenon: planners and policymakers need to be aware of the environmental changes that lead to shrinkage (drought, climate change); and the ways in which shrinkage leads to environmental changes (mining, heavy industry).

Martinez-Fernandez, MC and C-T Wu (2007) Urban Development in a Different Reality, Berlin 2006.

Shrinking cities in the developing world

In 2000, nearly 100 million people were living in cities whose populations were declining, representing 8.3 per cent of the total urban population in developing nations. Half of the population loss in shrinking cities took place in big cities of between 1 and 5 million, and almost one-fourth in intermediate cities of 500,000 to 1 million. These cities are not only experiencing a dramatic decline in their populations, but also in their economic and social bases.

Asian cities are the most affected by population decline; they account for 60 per cent of all shrinking cities in the developing world. Most of these cities are in China; Indian cities account for approximately 20 per cent. The cities experiencing population decline in the two countries differ in terms of size: in China, urban contraction concerns intermediate and big cities, and in India, it occurs mostly in small urban centers. In some cities, population loss is seasonal, often related to harvesting or planting seasons. Many rural migrants find temporary work in cities and return to their villages or small towns in time for the harvesting season. In these cases, urban population sizes of both the cities and the villages grow or contract, depending on the time of year and the season.

In the cities of **Latin America and the Caribbean**, growth slowed considerably in the late 1980s – a trend that has been amply documented. The reality of urban population loss in the region, however, still goes largely unrecognized, with the exception of some studies that find urban sprawl and increasing suburbanization are responsible for population decline in specific parts of cities. UN-HABITAT’s analysis shows that some 46 cities in the region, mainly in Brazil, Mexico and Venezuela, experienced population loss in the 1990s.

In **African cities**, signs of decline are almost negligible. Some urban areas, however, are either experiencing slow growth or are suffering from population loss. This phenomenon is confined mainly to small towns and cities. The UN-HABITAT analysis of urban growth from 1990 to 2000 reveals that of the 11 African cities that experienced declining populations,

10 were small cities.¹² It is possible that some cities lost populations as a result of war, disasters or civil conflicts, but in most cases, population loss has been a transitory process. Recent studies on migration and urbanization in Africa have produced empirical evidence demonstrating new patterns of return migration from urban to rural areas that may have an impact on population decline in the future. These patterns are more visible in once-booming economies such as Côte d’Ivoire, Cameroon and Zimbabwe and are apparently fuelled by the high cost of living in urban areas, unemployment and the relatively low cost of food, education and housing in rural areas.¹³ In many African countries, migration to a city is often temporary, as many migrants retain their rural roots even while working in the city. This also explains why the majority of woman-headed households in Africa are found in rural areas, as males tend to migrate to cities, leaving their wives and children behind.¹⁴

Why are some cities in developing countries shrinking?

The UN-HABITAT analysis of 143 cities with declining populations in the developing world provides a preliminary overview of the causes behind these changes, which can be grouped into four types.¹⁵

Suburbanization and the growth of nucleations

This process involves the systematic rapid growth of areas on the outskirts of cities, while growth in the inner core slows down, remains stagnant or declines. Suburbanization is associated more with urban sprawl than with urban decline per se. However, the movement of populations out of a city’s borders may not always mean that residents are moving to peri-urban municipalities or to the countryside; their movement may also be to neighbouring cities with

different politico-administrative structures. Many formerly monocentric cities in the developing world are becoming increasingly polycentric, developing urban nucleations with their own downtowns, employment centres and other features of independent cities. These adjacent urban areas expand their populations, often at the expense of the original city that experiences a decline in population, accompanied by a decline in economic activities and opportunities. In other cases, economic growth provokes land use changes promoted by business ventures that inflate land values in some parts of the city; this process ends up displacing poor and middle-income residents to neighbouring cities, thereby leading to a reduction in the number of inhabitants in the original city.

Migration from the central city to suburban areas or neighbouring cities generates simultaneous growth and decline, known as the “doughnut effect”. This type of outward sprawl is often precipitated by middle- or high-income families who move out of the inner city to less-dense neighbouring cities that have better amenities.

Urban sprawl does not always generate low-density suburban areas and new urban nucleations. The City of La Paz in Bolivia, for instance, lost an average of 10,000 people every year from 1989 to 2003 to the nearby El Alto settlement, owing to lack of affordable housing in the capital city and the difficulties of expanding a city that is located in a small, steep basin. Those who moved were mostly poor urban residents.

Urban contraction is expected to continue in La Paz, as the city has been experiencing a negative annual growth rate of approximately -1.1 per cent since the 1990s.

Studies of urbanization patterns in the developing world show that urban sprawl, suburbanization and the growth of nucleations will continue as the globalization of consumption patterns produces increasing homogeneity in the cities of the South. This trend will be further exacerbated by improvements in commuting technology and infrastructure, and the development of behaviours that drastically affect the dynamics of population distribution in various cities.

Economic decline

A number of cities are experiencing dramatic declines in their economic and social bases, which is related to a far-reaching structural crisis. Others are affected by long-term economic depressions or lack of economic impetus. These cities have lost or are losing significant numbers of people as a result of economic changes. The Indonesian cities of Pekalongan and Tegal experienced negative urban growth of -1.3 and -2.2 per cent, respectively, from 1995 to 2003, owing to the decline of processing industries; in both cases, the labour force migrated to the nearby larger cities of Semarang and Jakarta.

In most cases, depopulation is provoked by obsolete industries and incremental declines in single factory-based

industries, as evident in the small cities of Linhares, Brazil, and Valera, Venezuela, where the number of residents decreased by 2 per cent in the 1990s as a result of the decline of the main agricultural industry. The closing of a brick factory in Orizaba, Mexico, and the difficulties in reactivating the economy through new industries, explains the dramatic decline of population in this city that witnessed a reduction of more than 100,000 inhabitants at an annual growth rate of -6.5 per cent from 1990 to 2000. Likewise, the Chinese cities of Fuxin and Kaiyuan were affected by over-mining of coal that caused internal migrations to other cities; the cities subsequently lost 1.7 and 1 per cent of their populations, respectively. The copper mining city of Mufulira in Zambia experienced a massive economic decline in the late 1980s and 1990s and a progressive reduction of inhabitants in the same

decade; population decrease in this city was largely a result of investments that halted production and drastically reduced social benefits and to mine workers, impacting their well-being.

Economic decline in one city can also lead to prosperity in another as capital and infrastructure investments move between regions and cities. This was the case in the city of São Caetano do Sul, part of the São Paulo metro area in Brazil. The city, selected as an industrial development pole by the federal government, benefited from the government’s infrastructural and industrial development during the second half of the 20th century, but was negatively affected by

the building of a new highway in the neighbouring district of San Bernardo and the transfer of many businesses to a new industrial park located along the highway in the 1990s. The resulting economic decline has had a devastating effect on São Caetano in terms of physical decay, social problems and population loss, as the city experienced a negative growth rate of -3.4 per cent during this period.

A similar simultaneous loss of economic dynamism, disinvestment and increasing unemployment in one city and prosperous development in nearby agglomerations or other competitive cities in the region are observed in Barra Mansa, Brazil, the port of Coatzacoalcos, and the cities of Tampico and Torreon in Mexico that lost population by -2.1, -6.5, -3.8 and -3 per cent, respectively, in the 1990s. In these, as in other cities, urban decline is prompted by a loss of employment opportunities, leading to an exodus of both high- and low-income residents, which leaves the city and its region with very few resources in terms of employment and fiscal base. In many cases, the decline – and possible renewal – of cities cannot be divorced from their wider regional contexts. Declining cities are almost always concentrated in declining regions. The decay of a cluster of four coal-mining cities located in the Taebak Mountain Region in South Korea (Taebak, Jeongsun, Samcheok, and Youngwol) further illustrates this point. The import of cheaper oil and coal from international markets and the rationalization in

Many formerly mono-centric cities in the developing world are becoming increasingly polycentric, developing urban nucleations with their own downtowns, employment centres and other features of independent cities.



▲ A conveyor belt feeds broken rock into a stockpile at sunset at an open-pit copper mine in Zambia. High concentrations of sulphur dioxide emitted by its smelter and continuous water pollution from the mines has led to population loss in the city of Mufulira.
 ©Michael Fuller/Stockphoto

environmental policies between 1988 and 1993 led to a massive closure of mines that affected the entire Gangwon Province, which lost 11 per cent of its urban population from 1985 to 2002.¹⁶

Selective decline

There is no doubt that economic decline and the loss of employment opportunities are the primary causes of urban contraction. Other factors are intimately linked to the demographic decline of cities, as well: political decisions involving change of city status and reduction of investments, and the entrenchment of poor-quality urban environments, have led to selective decline in some cities.

The city of Nkongasamba in Cameroon experienced a population decline (-1.3 per cent per year) from 1986 to 1998, mainly because of the progressive loss of its political importance over the last three decades, which has negatively affected investments and has reduced political and economic support from the province and the central government. The difficulties in generating adequate infrastructure and public amenities, and the diversion of the highway and related economic activities, exacerbated the outward migration from Nkongasamba. Other forms of social and economic

segregation, combined with local conflicts and increased tensions partially explain the depopulation of some cities, including Ambon, Indonesia, which reduced its population by -1.3 per cent, and the Venezuelan cities of Guarenas and Catia la Mar, which lost population at an annual rate of -1.2 and -1.9 per cent, respectively.

Other cities lose populations because of serious environmental problems that overlap with other economic and social factors. This is the case, for instance, in the Indian city of Singrauli, the country's energy capital. The city has seven coal mines and 11 thermal plants; many Singrauli residents were relocated when the government built a reservoir and power plants nearby, and when poisonously high levels of mercury pollution were discovered. As a result, Singrauli experienced negative growth, at a rate of -1.3 per cent, between 1990 and 2000. A similar situation exists in the city of Minatitlan, Mexico, the population of which contracted at an annual pace of -2.6 per cent between 1990 and 2000 as a consequence of the local decline in the oil industry and the contamination associated with oil exploration. Likewise, the Zambian city of Mufulira has experienced population loss because of high concentrations of sulphur dioxide emitted by its smelter and continuous water pollution from the mines, in addition to political and economic problems.

Reclassification of cities

Cities in the developing world grow through natural increase, migrations and the reclassification of rural areas as urban centres. Through reclassification, the city's boundaries are redefined, villages abolished and towns established. In recent years, the annexation of surrounding areas by cities has become one of the main determinants of urban growth and urbanization.

In some cases, the opposite happens: adoption of new administrative rules and settlement definitions can lead to urban contraction, simply as a consequence of boundary drawing. As cities are divided into smaller administrative urban areas, their physical space and number of inhabitants shrinks. This has happened in several Chinese cities – namely, Chaozhou, Yancheng, Jingmen, Pingxiang, Xiaogan, and Yulin–Guangxi – which were reduced from a prefecture level, with a population of more than 1 million inhabitants, to county-level cities and counties with populations of approximately half a million people. Other intermediate Chinese cities with populations of between 500,000 and 1 million residents were also divided into smaller urban administrative units, leading to population

losses that varied from 9 to 1 per cent, particularly in the cities of Heyuan, Jincheng, Qingyuan, Yangjiang, Quijing, Deyang, and Huaihua. In other cases, the creation of new political regions and municipalities near a city provokes loss of population in the existing city, as happened with Nova Iguaçu in Brazil, which reduced its population by -6.2 per cent with the creation of Belford Roxo, Querimados, Japeri, and Mesquita municipalities in the beginning of the 1990s.

Is urban contraction a trend of the future?

While debate on the consequences of shrinking cities is intense in North America and Western and Central Europe, it is not yet a well-recognized issue in the developing world. The problem of shrinking cities in developing regions is woefully underrepresented in international comparative research despite the links between urban population growth and decline. This report provides a first insight into the scope of the urban contraction process in the developing world and also explores some of the different possible causes for it, producing a preliminary typology aimed at better understanding this phenomenon.



▲ An abandoned building in Philadelphia, U.S.A.: Economic decline often leads to population decline in cities.
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Urban regeneration halts population decline in a European town

The municipality of Leinefelde-Worbis in the former East Germany has succeeded in addressing the problems faced by shrinking cities through an innovative and integrated participatory approach to urban regeneration. The living environment has been significantly upgraded, with redundant housing stock demolished and more than 2,500 apartments refurbished to high environmental standards. As a result of the project, the economy has revitalized and depopulation trends have gradually been reversed.

The “ZukunftswerkStadt” project aimed to achieve sustainable urban development in the context of the dramatic changes in East Germany after reunification. It sought to dramatically improve living conditions, urban infrastructure and the urban environment; create new job opportunities; promote affordable and attractive housing opportunities in a diversified and balanced housing market; improve social and economic stability; and encourage active community life.

The creation of employment has been a key aspect of the approach, as has the revitalization of infrastructure, both physical and social. The

improved living conditions and resurgent local economy have created a base for social and financial stability. High-quality public services and infrastructure, including access to good schools, an efficient and convenient public transport system and facilities for sports and leisure pursuits, have made the city attractive to new migrants and encouraged residents to stay. The municipality’s integrated approach and work with private partners created essential conditions for sustainable private investment in the locality, and the new urban environment is attracting new residents.

A range of options were developed to deal with the municipality’s various housing problems. With growing unemployment rates, many inhabitants of this small town, comprising just 20,000 inhabitants, had left for other more prosperous regions in Germany. The low-quality, standardized prefabricated units they left behind made up the bulk of the housing stock. Architectural competitions were held for all key projects and high environmental standards were applied throughout, whether for new construction, refurbishment or demolition of surplus apartments.

The project strategy has given residents, landlords, businesses and the municipality a positive economic outlook. The spatial anonymity of socialist urbanism has been replaced with clear distinctions between private and public spaces. Different housing types and sizes have been developed to encourage diversity.

The investment has been largely absorbed by the local building trade and the job market, which has been advantageous to the local community. Leinefelde-Worbis currently hosts 1,200 businesses, and its unemployment figure of 15.1 per cent is significantly lower than the regional (Thuringia) average of 18.1 per cent. The municipal debt is one-third lower than the regional average, despite its below-average per capita tax income. Families with young children are taking advantage of the improved schooling and living environment, and elderly and retired people are utilizing the improved local services. In addition, 1,300 people commute regularly into the town, and the 6 per cent increase in population in 2006 indicates that people are returning to the area.

Source: *Building and Social Housing Foundation, 2008.*

At present, it is difficult to predict whether the trend of urban decline in the cities of the developing world will continue into the future. It may be that contraction represents a broader phenomenon of an urban life cycle that is only emerging now. Declining fertility rates coupled with changes in rural-to-urban migration flows may contribute to the decline of populations in some towns and cities. From a physical

perspective, shrinking cities are characterized by abandoned or vacant commercial sites, deserted or unoccupied houses, wasted infrastructure, and neighbourhoods in physical decay. This phenomenon could be arrested through strategies that enhance the liveability and economic viability of cities, and through diversification of economic activities to attract people and investments.

NOTES

- ¹ The rationale for choosing this sample of cities is explained in Chapter 1.2.
- ² Calculations based on years for which data exists.
- ³ Data on the decline of population in the city refers to the entire city or a part of the city in a metropolitan region.
- ⁴ Indonesia’s Urban Studies, 2007 and Rustiadi & Panuju, n.d.
- ⁵ National Statistics Office South Korea, 2005.
- ⁶ Refer to various documents of the Shrinking Cities Association.
- ⁷ Martinez Fernandez & Chung-Tong, 2007.
- ⁸ Ibid.
- ⁹ Sitar & Sverdlov.
- ¹⁰ In the last five years, the situation has changed significantly. The term “shrinkage” has become common across Europe. Today, for instance, innumerable activities and events in Germany deal with the shrinkage issue.

Refer to Thorsten, 2006.

- ¹¹ Delken, 2007.
- ¹² Yet, data in this region is quite questionable not only because of the lack of consistent definitions and problems of city boundaries that are common to other regions, but also because of the structural weakness of the statistical systems.
- ¹³ Beauchemin & Bocquier, 2004.
- ¹⁴ UN-HABITAT, 2006a.
- ¹⁵ Wiechmann Thorsten suggests a typology based on four types: suburbanization, industrial transformation, selective collapses, and political strategies. Refer to the Thorsten, 2006.
- ¹⁶ Shin, 2006.