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Poverty, Peri-urbanization and Population Policies in Asia: An Overview

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Abstract

As countries urbanize, the built-up area of large cities is expanding ever further into mega-urban regions to meet the spatial needs of the population and economy. The expansion often occurs outside the municipal boundaries in rural areas and adjacent smaller cities and towns, without much overall planning, leading to inefficient development patterns and environmental degradation and conflicts over natural resources. Peri-urban areas are not just an urban fringe area, but the interface of rural and urban activities and institutions, and a transitory phase between rural and urban conditions. Processes in peri-urban areas are driven by local and foreign investments in manufacturing which attract a specific type of workers, real estate developments for the urban middle- and high-income groups, the resettlement of the urban poor evicted from the city by rising urban land prices, the competition for water by farmers, factories and households and the uncontrolled dumping of solid waste and wastewater.

Policy-makers, researchers and the media have focused their attention primarily on the growth of the mega-city in Asia, but a majority of the urban population actually lives in smaller cities and towns which are also the home of a disproportional share of the urban poor. Despite devolution of powers to local government, many smaller cities and towns lack the urban management capacity to promote economic growth and development, expand urban infrastructure services and reduce poverty. Urban policies that benefit the smaller cities and build their urban management capacity would result in a better distribution of the urban population, a reduction in migration to very large cities and a decline in urban poverty. However, given the drivers of peri-urbanization and the importance of natural population growth in urban population growth, development of smaller cities towns would not necessarily have an impact on peri-urbanization.

The future of peri-urban areas will depend on some difficult policy decisions. However smaller cities are developed, private investments as well as many public investments will gravitate towards very large cities due to their economies of scale and agglomeration. Some therefore see a continued conversion of rural into peri-urban and of peri-urban into fully urbanized areas, with peri-urbanization occurring at an ever increasing distance from the city core. Others argue that the ecological health of mega-urban regions requires the preservation of natural resources in the rural and peri-urban areas around the city. However, planning or regulating peri-urban development is very difficult without an effective regulatory and coordinating authority (possibly covering the entire mega-urban region). Where a planning and regulatory framework exists, it is often undermined by corruption and a political unwillingness to enforce.

The management of urbanization and urban development at the national and local level requires more powers, enhanced capacity and human and financial resources for national and local governments. Many smaller cities and towns have economic potential which has not been fully exploited, especially in the light of further regional integration. Experiences from countries in the region show, however, that devolution and local economic development do not necessarily benefit the poor, as benefits are often captured by the local elite. Moreover, even when they emerge, the poor may not be able to seize new economic opportunities due to a lack of capabilities (health, skills, education, information etc.). The poor need to be empowered to operate in the “market place” and be able to benefit from macro-economic and spatial government policies that aim at achieving a spatially more equitable economic and urban growth.

Urbanization

As Asia urbanizes and a majority of its population is projected to live in urban areas by 2019, attention by academics and the media is focused on the region's mega-cities (cities with a population of 10 million or more). They are presented as global cities and economic powerhouses (Shanghai) that other cities should emulate. They are also featured as mega-disasters, characterized by extreme poverty, slums, traffic congestion and environmental degradation (Jakarta, Manila). Over the last decades, mega-cities have proven to be engines of economic growth and centres of socio-economic opportunity. However, the mega-city often sees its population spill over the municipal boundaries. As the city spreads, it absorbs smaller cities and towns; it urbanizes rural areas and it forms a mega-urban region. The size of mega-cities in terms of population, area and economy is unprecedented in history and poses huge urban management challenges.

Mega-cities and smaller cities

Urban Asia does not consist only of global mega-cities. The focus on mega-cities has diverted attention from smaller cities and towns where a majority of the region's urban population lives. The total population of Asia's 14 mega-cities represented 13.8 per cent of the region's urban population in 2010. Over half of Asia's urban population lives in cities and towns with less than 0.5 million inhabitants (table 1)[2]. Urban research has ignored small cities too long been ignored, and the picture of urban form and function is therefore incomplete (Bell and Jayne, 2009: 683).

Researchers are not the only ones having neglected smaller cities. Policy-makers have also focused their attention disproportionally on the large and very large cities. Although central governments across the region have adopted decentralization policies and are devolving many responsibilities to local governments, these local governments, particularly of smaller cities, often do not have the financial and human resources to perform the new functions. Capacity development of local governments of smaller cities has been ignored in many countries. Improved urban management capacity could lead to more local economic development and poverty reduction.

Table 1 Population distribution and average annual rate of change by urban settlement size in Asia (2000-2015)

Urban	Settlement size	Population (millions)		Change (%) (2000-10)	% of urban population	
		2000	2010		2000	2010
	10 million +	152.7	234.5*	53.5	11.7	13.8
	5-10 million	129.3	181.3	40.2	9.9	10.7
	1-5 million	144.6	181.1	25.2	11.1	10.7
	0.5-1 million	125.3	176.6	41.0	9.6	10.4
	<0.5 million	749.1	926.4	23.7	57.6	54.5
	Total urban	1,301.0	1,699.8	30.7	100.0	100.0
Rural		2,468.0	2,479.6	0.5		
Total		3,769.0	4,179.5	10.9		

* The increase was the result of population growth (35.7 million) and the addition of four new mega-cities (46.1 million).

Source: Compiled by UN-Habitat and UNESCAP from data by UNPD (2014)

[2] The data presented here need to be qualified, as there may be an undercount of the population of mega-cities and other large cities due to the overspill of their population into peri-urban areas (that are defined as rural) and adjacent smaller cities and towns, and due to the difficulties of counting circular migrants and the very poor.

As a result of the neglect of smaller cities and towns, little is known about urban poverty in these localities. Only recently, Ferré et al (2012: 351) examined the relationship between poverty and settlement size in eight developing countries (of which three in Asia: Kazakhstan, Sri Lanka and Thailand). They concluded that (a) a majority of the urban poor live in medium, small and very small towns, (b) poverty is more widespread and deeper in very small and small towns than in large and very large cities, and (c) the greater incidence and severity of income poverty in smaller towns is deepened by greater deprivation in terms of access to basic infrastructure services.

Given their limited economic opportunities, small cities and towns often serve as staging areas for migration to large cities. Despite the almost inevitable informality of urban employment and the serious problems of housing and access to infrastructure services they face in large cities, migrants are attracted to these cities because of their economic opportunities, the higher quality of services and the opportunities for socio-economic upward mobility for themselves and particularly for their children. Migration is often a sign of ambition and migrants tend to be more enterprising and more successful in the city than the native urbanites.

Rural-urban migration does not only affect the migrants and the urban areas they move to, but also has an impact on rural poverty and rural society. Given the advances in communication and transport technology, migration is now rarely a complete break with the place of origin. Improvements in transport enable migrants to visit their place of origin on a regular basis and information technology allows them to stay in touch, remit money to support relatives back home. As a result, an increasing portion of the rural household income is earned in urban areas. Many migrants return eventually and transform the rural norms and values into, what may be called a peri-urban culture. If they use any savings for productive investments, they also contribute to local economic development in their hometown or village.

Unlike some other regions, much of Asia is experiencing urbanization with economic growth. Over the past decades, the economies of many large cities have grown rapidly and enabled large sections of the urban (and rural) poor to escape poverty and join the middle-income population. One of the most significant outcomes has been the expansion of the urban middle class which has transformed many cities. It has increased the demand for quality housing to which the private sector, supported by a growing housing finance sector and enabling housing policies, has responded by supplying affordable middle-income housing, often in the peri-urban areas. Not everyone has, however, benefitted from the economic growth and many Asian cities show high levels of inequality in income and access to services.

Peri-urban areas

The demand by the middle-class for housing and the development of offices, hotels and shopping malls in the city centre have led to a sub-urbanization of the population in many large cities. The built-up area is extending ever further from the city centre, due to the housing needs of the growing population, its demand for more space and a better environment, and the break-up of the extended family into nuclear units. Some cities can absorb the expansion, because their boundaries have been drawn generously in anticipation of the urban expansion. Other cities (e.g. Seoul) have tight boundaries with limited or no space for expansion. Any growth therefore occurs outside their boundaries, i.e. within the boundaries of an adjacent city or town, or in what is administratively a rural area. Where the expansion occurs affects the extent to which the expansion can be planned, regulated and controlled.

If the expansion occurs within its boundaries, the city could plan, regulate and control the growth; if it occurs in the rural areas or in a small town, this is unlikely, due to a lack of planning authority, capacity or resources. Whatever the conditions, many

governments in Asia seem to leave the initiative for urban expansion largely to the private sector, due to a lack of capacity and political willingness. As a result, the conversion of rural land into urban land around and between cities is driven largely by the narrow interests of landowners and real estate developers, leading to inefficient development patterns, incompatible land uses and environmental conflicts. The pattern of peri-urban development varies, however, from one place to another, depending on many factors, including the geography and the prevailing types of agriculture and landholdings.

Defining peri-urban

Peri-urban is hard to define; it can denote a place or a set of processes. As a place, it refers to fringe areas surrounding a city, characterized by a mix of urban and rural land uses with population densities between urban and rural densities. Peri-urban society is heterogeneous with traditional-rural and modern-urban features. Sources of income, even in the same household, include agriculture, industry and urban services (Allen et al, 2006a: 343). However, spatial models of peri-urban areas disregard the social, economic and cultural complexities and processes and zones of influence and interaction in peri-urban areas (UoN and UoL, 1999: 5-6).

Their dynamic nature is the key feature of peri-urban areas, as it is the space where urban and rural (economic, social, cultural, environmental, administrative) processes meet and interact, but the various processes do not occur in the same place at the same time. This makes peri-urban areas difficult to delineate. Peri-urban areas are in a constant state of flux due to external forces such the expansion of infrastructure services, particularly roads and transport, foreign direct investments and real estate development. They experience rapidly changing patterns of land use, changing labour market opportunities and constraints, rapid changes in socio-economic structures and increasing pressures on natural resources (Rakodi, 1999: 2).

Because there are no clear boundaries and statistical data distinguish, at best, only between urban and rural areas, there is a lack of detailed data on peri-urban areas and processes. For operational purposes, Webster (2002: 8) defined a peri-urban area as an area with employment in the primary sector (agriculture, fisheries) of more than 20 per cent of the labour force but declining, and employment in manufacturing of more than 20 per cent of the labour force and rising. Peri-urban can also be seen as the interface of rural and urban activities and institutions, not only around cities, but also in rural areas and as a transitory stage between rural and urban, however defined (Narain and Nischal, 2007: 261).

As the urban area expands, the peri-urban area shifts further and further out. McGee (2009: 9-12) distinguished two zones around and between Southeast-Asian cities, although he realized that they are often combined into a single zone, as their differences are only relative:

- The inner, peri-urban zone was previously dominated by agriculture, but most of the activities have become urban and urban buildings prevail.
- The outer, *desakota* zone[3] is still dominated by agriculture, but urban housing and industry can also be found.

Peri-urbanization

Infrastructure services

Roads and transport services are a critical factor in peri-urbanization. Often, the only initial public intervention in the peri-urban area is the construction of primary roads linking cities, towns and villages. Such roads open rural land for urban development,

[3] A term composed of the Bahassa words for village, *desa*, and town, *kota*.

but also create “superblocks” of blind land (i.e. land without public access). With secondary and tertiary roads absent, the earliest land conversion is ribbon development along the primary road. Once land prices along that road reach a certain level, it becomes worthwhile for landowners and developers to build roads to connect their land to the main road and develop that land inside the superblock. Because landowners and developers are driven by their individual interests of linking their property to the main road, many roads are very narrow. Inside the superblock, unpaved rural roads and footbridges allow poor residents of informal settlements in peri-urban areas to reach the main road by foot, bicycle, motorcycle or informal modes of public transport.

Economic transformation

When land prices rise in the peri-urban area, farmers must decide what to do with their land. Some stop farming and sell their land to a developer or subdivide it for housing development. Farmers with a large parcel in a good location and with negotiating skills and the resources to wait for the best time to sell can become rich, but middlemen who assemble land parcels for future development often make the most profit. Some farmers shift to intensive agriculture and grow vegetables and fruit for the urban market, provided they can connect to those markets. Other farmers are forced to sell due to a lack of irrigation water due to an increased demand for water and the pollution of water sources (Janakarajan et al, 2007: 61).

Urbanization transformed agriculture in peri-urban areas of Hanoi, as it reduced the amount of agricultural land, raised land prices and forced farmers to intensify land use. As the demand for food products increased simultaneously, the province was able to supply 62-80 per cent of the vegetables, 50-73 per cent of the pork and 46 per cent of the fish consumed in Hanoi in 2000 (Van de Berg et al, 2003: 37).

The primary roads that connect the peri-urban area to the city allow middle- and high-income households to commute by private vehicle. Thus, the private sector develops housing estates (gated communities) and satellite towns in the peri-urban areas, with private roads and bridges, wherever necessary. As water supply and wastewater and solid waste disposal services are not available, developers build self-contained estates with their own infrastructure services. The presence of middle- and high-income families makes a peri-urban area attractive for the retail sector. Huge malls with supermarkets, restaurants, cinemas and large parking areas draw families with a private car from a vast catchment area.

Peri-urban areas are often engines of economic growth, as factories emerge in the middle of the rice fields. Peri-urban industrialization takes various forms. Some factories are pushed out of the city due to high land prices and/or environmental regulations. They relocate in peri-urban areas where land prices are lower and environmental regulations are non-existent or not enforced[4]. According to Kundu (2007: 167), Delhi’s peri-urban population is less aware than its urban population of the environmental impact of industrialization and less effective in stalling the arrival of hazardous industries. Moreover, local bodies tend to be weak and unable to control the production processes of hazardous units.

A second type of peri-urban industrialization is the industrial estate (Webster, 2002: 8-9). FDI-driven manufacturing moves to peri-urban areas, because it requires vast land parcels for its large-perimeter single-story factories and relatively easy access to the city’s seaport, airport, markets and support services. Because of the lack of

[4] Unlike in some US cities, the space vacated by the factories (and suburbanizing high- and middle-income households) is not occupied by the poor, but by offices, shopping malls and luxury condominiums.

infrastructure services in peri-urban areas, industrial estates also tend to be self-contained. Investors and government agencies also like manufacturers to be grouped in industrial estates, as it allows estate management to act as intermediary between the foreign firm, local service providers and the government. Suppliers can locate in the same or nearby industrial estates. Industrial estates reduce environmental impacts and their self-sufficiency reduces demands on government services.

> Although still concentrated in Dhaka City, garment production is sprawling to less densely populated peri-urban areas. As urbanization advances, the cost of producing in core urban areas increases, because of increases in the cost of land and labour. At the same time, improvements in connective infrastructure services reduce transport costs. Factories and workshops which move to peri-urban areas benefit from proximity to markets while taking advantages of lower production costs (Muzzini and Aparicio, 2013: 27)

Peri-urban areas do not have a wide variety in employment opportunities, because most factories recruit specific types of workers (Webster, 2002: 11). Low-value manufacturers recruit workers with middle school; advanced manufacturing requires high-school completion. These entry requirements tend to favour migrants over the local population. As peri-urban areas lack the population density and diversity of the city, professionals and technicians usually are recruited from city. They may live in the peri-urban area or commute from the city proper.

Unskilled and semiskilled labourers who do casual work or are self-employed in the informal sector have more problems finding work in peri-urban areas. Industrial and housing estates offer some employment, but the deficiency in roads and transport services hinder travel. Commuting to centres with income-generating opportunities is costly in terms of money and time. This makes peri-urban areas less attractive for the very poor. However, the lack of infrastructure services depresses the development potential of the land inside the superblock, and allows the poor to develop informal settlements on a temporary basis until development pressure evicts them.

Population dynamics

The heterogeneity of the peri-urban population across the region does not allow for much generalization. The original population of the peri-urban area must have been mostly farmers, but the types of agriculture and the population densities differ from place to place. Some large cities are surrounded by densely populated involved in smallholder agriculture with irrigated fields. Other cities are surrounded by large commercial farmlands with low population densities. Webster (2002: 6) expects that by 2025, peri-urban areas in East Asia will have absorbed as much as 40 per cent of the urban population growth (but does not give a source for this projection).

In many large cities, there is a slowdown in population growth or even a decline in the city core, and a sub-urbanization of the population. In Jakarta's Metropolitan Area (Jabotabek), the population in the core grew from 8.36 to 9.59 million (14.7 per cent) between 2000 and 2010, the population in the inner suburbs grew from 4.94 to 7.23 million (46.4 per cent), and in the outer suburbs from 7.3 to 11.2 million or 53.4 per cent (Cox, 2011). Surveys of peri-urban Bangkok and Jakarta (Browder et al, 1995: 319) found primarily long-term urban residents: 50 per cent of the households in peri-urban Jakarta had resided in the city centre and 17 per cent elsewhere in the fringe; no household had come from the rural areas.

In Bangkok, 2 per cent of the residents had come directly from the countryside and 26 per cent had come from another city. In Bangkok and Jakarta, employment in agriculture among peri-urban workers was extremely low**.** Most peri-urban male workers commuted to worksites in the city or elsewhere on the metropolitan fringe. In

Bangkok, male workers worked in city-centre locations; in Jakarta, they were about evenly split between work in the city centre and other city areas. Most women workers in Bangkok and Jakarta were locally employed. Peri-urban residents usually worked in the formal service and manufacturing sectors, while industrial employment was mostly in large enterprises (Browder et al., 1995: 320-21).

In their survey of peri-urban areas, Browder et al did not capture the presence of large numbers of young female migrants. Many factories recruit young, single women with a basic level of education who tend to come from the provinces (Webster, 2002: 11). Around Dhaka, garment workers typically live in, what is called, “mess housing”, i.e. slum housing for single men and women, with four persons in a room and 16 persons sharing a toilet, bathroom and a kitchen (Claeson, 2012: 33). In Bangkok, many factories initially build dormitories for their workers, but as the area urbanizes, workers find their own housing and the companies run buses to transport them from different locations to the factory.

Colombo is a relatively small city and the peri-urban areas are not far from the city core. Due to the high cost of urban housing, middle-income residents move to the peri-urban area for its cheaper accommodation, while poor, informal-sector workers rent a room in hurriedly built extensions and crowded temporary shacks. Slums and shanties proliferate. Traditional agriculture is abandoned and villagers shift to the production of fruits and vegetables or find a job in the city. The transformations affect traditional society and culture: populations are divided, as outsiders and insiders are unable to form coherent communities (Dayaratne and Samarawickrama, 2003: 102).

The peri-urban area is not a good place to live for unskilled and semi-skilled workers, but that does not mean that there are no peri-urban poor. As land in the city becomes more expensive, many urban poor are evicted either by force or by the market. The recent boom in real estate around the world due to the low interest rates on savings and the broad lack of investment opportunities has led to the removal of urban poor settlements from the core of many cities in Asia and the resettlement of their population in the peri-urban area. The resettlement takes various forms.

Some governments provide formal low-income housing or open plots for self-help development; landowners may subdivide their land for sale or rent; or the evicted urban poor squat on vacant or abandoned rural land. A lack of infrastructure services and of suitable employment in peri-urban areas causes serious problems for the resettled populations. In Delhi, the most common approach in dealing with informal settlements is to shift the poor to the peri-urban areas (Kundu, 2007: 168-169), but many families sell their plot and return to their original place of squatting, as work near the relocation sites is scarce.

Environmental impacts

Municipal water supply networks usually do not reach into the peri-urban areas. As middle- and high-income households as well as factories move into these areas, there is growing competition for water between farmers, households and factories. Factories and housing estates often use underground sources for water supply and water bodies for the disposal of wastewater, leaving the farmers without irrigation water. Because of the privatization of water supply in the industrial and housing estates, there is little or no popular pressure to develop a full-fledged water supply network. Such a network becomes an option only when densities increase and the area becomes reclassified as a municipality or is annexed by the city.

The use of underground water has also serious environmental consequences. It has led to land subsidence in many cities (Bangkok, Jakarta, Shanghai etc.) as well as to the depletion of the aquifers. In years with poor rainfall, cities like Chennai also pump

water from aquifers in the peri-urban area for use in the city core. This affects water supply for agriculture and can make aquifers saline due to seawater intrusion (Janakarajan et al, 2007: 54). In many peri-urban areas, the groundwater levels have receded and wells used by farmers and the peri-urban poor have run dry.

Housing estates and factories are supposed to treat their wastewater before it is discharged and to dispose solid waste in an environmentally responsible manner, but there is usually little or no inspection. Many farmers involved in intensive agriculture make excessive use of chemicals and produce toxic waste from pesticides which contaminates water sources and food products. Even without peri-urbanization, many cities use peri-urban areas to dispose of solid waste, often without any safeguards. As housing estates and factories proliferate, there is a rapid increase in solid waste which is often dumped illegally.

Peri-urban governance

Most peri-urban areas are located outside municipal boundaries and are, at best, administered by some rural form of government with limited responsibilities, limited powers and capacity, and limited resources. In addition, a wide variety of agencies from national, provincial or state level including line agencies, state enterprises and privatized entities are responsible for public service delivery (Webster, 2002: 39). Because of the multitude of competing agencies and administrations, little or nothing in terms of planning and management is achieved. Devolution of powers has heightened the problems of coordination and cooperation between local bodies

Many problems of peri-urban areas (water supply, transport, solid waste disposal and environmental degradation) are in fact beyond the remit of a single local body or national agency. As cities and towns merge into mega-urban regions, such regions need an administrative-political structure between the local and central government with the authority to plan, regulate and coordinate. However, such authority would have immense political clout, given the size of the population and the economy under its control. Neither local governments nor central government would like to see such an authority established[5].

Peri-urbanization also leads to a clash of cultures on the right to land. Farmers in some peri-urban areas lack a title to the land their family may have cultivated for generations. They have always relied on customary land rights, but find themselves in a vulnerable position when private developers, backed by the city's modern legal system of landownership, invade their territory. In this situation of low land tenure security, famers may be more inclined to sell their land for a relatively low price.

Urban poverty

Defining poverty

Poverty can be defined as the inability of a person or a household to meet basic minimum needs in terms of a level of income or expenditure considered necessary to satisfy those needs (Mathur, 2013: 4). However, the poor do not perceive poverty solely in terms of income, but use broader concepts of deprivation and insecurity, reduced self-respect and a sense of helplessness (Rakodi, 1999: 2-5). Thus, poverty should rather be seen as the deprivation of basic capabilities that would give a person the freedom to lead the kind of life he or she has reason to value. Income is merely an instrument to generate those capabilities (Sen, 2000: 87). Many poor do not only have a low income, but also lack access to safe water and sanitation, to adequate shelter and livelihood, to health and education services; they have no voice

[5] In fact, it is argued that the division of a mega-city or a mega-urban region into small municipalities enhances public participation and government accountability.

in decision-making and feel that they are not treated with respect and dignity. As a consequence, they are unable to lead the life they value.

Urban income poverty

Over the past two decades, income poverty in Asia has declined significantly. Between 1990 and 2011, the number of people living on $1.25 or less a day (extreme poor) decreased from 1,627 million to 743 million, a decline of 884 million, while the number of those living on $2.00 or less a day (moderate poor) declined from 2,417 million to 1,643 million (UNESCAP et al, 2013: 26). An assessment of urban and rural income poverty trends in two sub-regions of Asia over the period 1993-2002 (table 2) shows that extreme rural poverty declined by 172.9 million, and extreme urban poverty increased by 5.5 million (Ravillion et al, 2007: 38).

Table 2 Urban and rural poverty in Asia and the Pacific (1993-2002)

Subregion	Number of extreme poor (millions) (poverty line at $1.08 per day, in 1993 PPP)			Urban as % of total poor
	Urban poor	Rural poor	Total poor	
1993				
East Asia + Pacific	28.7	407.2	435.9	6.6
South Asia	107.5	383.3	490.8	21.9
Total	136.2	790.5	926.7	14.7
2002				
East Asia + Pacific	16.3	223.2	239.5	6.8
South Asia	125.4	394.3	519.7	24.1
Total	141.7	617.6	759.2	18.7
Change 1993-2002				
East Asia + Pacific	-12.4	-183.9	-196.4	
South Asia	17.9	11.0	29.0	
Total	5.5	-172.9	-167.4	
Ravillion et al. covered two sub-regions in Asia: East Asia and the Pacific, and South Asia and from a limited number of countries within these sub-regions for which data were available.				
Source: Ravillion et al, 2007, 38.				

Other data from the region also show a significant decline in the share of the urban poor in the total urban population (table 3). Measuring income or expenditures, particularly of the poor, is, however, extremely difficult, while some other dimensions of poverty and deprivation are even more difficult to quantify. Statistics on poverty in urban and rural areas are therefore often quite imprecise.

Table 3. Share of the urban poor in the urban population in selected countries				
Country	Year	% of urban population	Year	% of urban population
Bangladesh	1992	42.7	2010	21.3
India	1994	31.8	2010	20.9
Indonesia	1996	13.6	2012	8.8
Thailand	1990	20.5	2011	9.0
Viet Nam	1993	25.1	2010	6.0
Source: UNStats, 2013.				

The data also present merely snapshots of the trends in urban and rural income poverty; they do not show the processes involved. The declining rural income poverty could be the result of new economic opportunities in the rural areas and of effective rural poverty reduction and rural development programmes, but they are unlikely to explain the entire reduction of rural income poverty. Rural and urban income poverty should not be considered separately, because they tend to be interdependent. In many cases, urbanization plays a major part in rural income poverty reduction.

Rural-urban migration by the poor reduces rural income poverty and increases urban income poverty, but this is not the whole story. Urban areas offer more economic opportunities than rural areas and some or many migrants will escape income poverty and join the near-poor or the middle-income population (table 4). Also, remittances by migrants and earnings from temporary and circular rural-urban migration form an increasing share of the rural household income in many countries. Rural-urban migrants who do not escape urban income poverty join the urban poor and contribute to the increase in urban income poverty.

Table 4. Employment by economic class in Asia (1991-2011)				
	1991		2012	
	(millions)	%	(millions)	%
$4.00 and more	65	5.0	671	37.9
$2.00-4.00	178	13.8	497	28.1
$1.25-2.00	333	25.8	365	20.6
Below $1.25	715	55.4	238	13.4
Total	1,291	100.0	1,771	100.0
Asia includes East Asia, Southeast Asia and the Pacific, and South Asia				
Source: Huynh and Kapsos, 2013: 26-27.				

Large cities offer more economic opportunities to escape income poverty than small cities and towns, but there are very few data on urban poverty by settlement size. Using national poverty lines (and noting several caveats, particularly on the definition of “urban”), Ferré et al (2012: 355-361) found that the urban poor in Kazakhstan, Sri Lanka and Thailand lived disproportionally in smaller cities (table 5). Similarly, small cities and towns in Viet Nam, account for 43 per cent of the urban population, but over 70 per cent of the urban poor, while Hanoi and Ho Chi Minh City house 32 per cent of the urban population, but only 11 per cent of the urban poor (Hoang et al, 2013: 4). Ferré et al (2012: 369) also found that access to piped water supply, networked sanitation, electricity tends to be higher in larger cities.

Table 5. Poverty by urban settlement size in selected countries						
Urban settlement size	Kazakhstan		Sri Lanka		Thailand	
	Share of total population	Share of the poor	Share of total population	Share of the poor	Share of total population	Share of the poor
1 million +	0.08	0.01	-	-	0.12	0.01
0.5-1.0 m	-	-	0.03	0.01	-	-
0.1-0.5 m	0.29	0.21	0.03	0.01	0.03	0.01
0.05-0.1 m	0.05	0.05	0.02	0.01	0.02	0.01
<0.05 m	0.15	0.15	0.04	0.02	0.14	0.13
Urban total	0.57	0.43	0.12	0.05	0.31	0.17
Source: Ferré et al, 2012: 360-361.						

Because of the difficulties of measuring income poverty, urban housing deprivation (i.e. a lack of adequate housing) and infrastructure services deprivation (i.e. lack of access to safe water supply and sanitation) are often used to measure poverty, although not all “income poor” live in inadequate housing and not all those living in inadequate housing are “income poor”. Moreover, urban poor settlements are sometimes left off maps, surveys and censuses and some inadequate housing like low-cost rental housing is invisible. Still, the size of the population living in inadequate housing gives an indication of the level of urban poverty.

Table 6. Urban population living in inadequate housing in selected countries						
	1990		2005		2009	
	%	millions	%	millions	%	millions
Bangladesh	87.3	20.0	70.8	27.8	61.6	27.5
China	43.6	131.7	32.9	183.5	29.1	180.6
India	54.9	121.0	34.8	112.9	29.4	104.7
Indonesia	50.8	27.6	26.3	24.8	23.0	23.3
Pakistan	51.0	18.1	47.5	27.2	46.6	30.0
Vietnam	60.5	8.1	41.3	9.5	35.2	9.2
Inadequate housing has one or more of the following characteristics: insecure land or house tenure; lack of access to safe water and sanitation; insufficient living space; temporary or semi-permanent structures that fail to protect against extreme climate conditions; a hazardous, disaster-prone location.						
Source: UNStats, 2013.						

In Asia and the Pacific as a whole, 97 per cent of the urban population is reported to have access to improved sources of drinking water (UNESCAP, 2013: 126). Many cities, however, have wide disparities in water quality and quantity between different parts of the city. Many urban poor areas have public or private taps connected to the water supply network, but water is available for a few hours only, often in the middle of the night, and the water may be contaminated by sewage and solid waste. These conditions force many poor to buy water from private vendors at a high cost

Only 76 per cent of the urban population in the region has access to improved sanitation (UNESCAP, 2013: 126). Access to improved sanitation, like access to water supply, does not give an indication of the quality of the facility. Quality depends on its construction, use, maintenance and cleaning and the functioning of the system. An unclean or broken facility and an overflowing septic tank can pose greater health

risks than no facility at all and cause people to avoid using the facility. Women and girls are particularly vulnerable when they do not have access to quality sanitation.

Peri-urban poverty

Data on income poverty tend to come from nationwide sample surveys of household income and expenditures. The sample is representative for the population as a whole and in a few countries for rural and urban populations separately, but they are rarely representative for a single city, let alone a town or peri-urban area, however defined. If the data are disaggregated by urban and rural area, the disaggregation uses the administrative divisions which do not represent the actual urbanized areas, as the urban population often spills over into the administratively rural areas.

In the absence of detailed and reliable data and given the heterogeneity of peri-urban areas, it is difficult to generalize about peri-urban poverty. What often distinguishes the poor from the very poor in a peri-urban context is their ability to utilize urban opportunities, as peri-urban livelihood strategies are strongly driven by markets (Allen et al, 2006b: 22). The following tentative observations may be made:

- Many small farmers are negatively affected by peri-urbanization. Unless they have the resources to shift to intensive agriculture and can sell their produce at urban markets, they may be forced to abandon agriculture and join the urban work force or the urban poor.
- The unskilled and semi-skilled in peri-urban areas lack income-generating opportunities with ease of access (in terms of travel cost and time) and ease of entry (in terms of regulatory barriers) such as informal-sector trade and casual labour. They need to commute to urban centres, but this may be too costly.
- Lower land values and less land pressure make peri-urban areas suitable for those poor and near-poor who have the skills for regular employment and sufficient income to buy or rent housing in a peri-urban informal settlement or subdivision and who can afford transport to work.

This was confirmed by the surveys in peri-urban Bangkok and Jakarta (Browder et al, 1995: 323). Most peri-urban residents were integrated into the larger urban economy and rural-sector linkages and agricultural activities were virtually nonexistent. A significant share of economic activities was located within the immediate fringe area, but most households depended on formal jobs outside the immediate neighborhood. Most workers were formally employed and received regular salaries and wages under legal employment contracts. While only a small segment of the men were involved informal activities, women often worked in the informal sector.

As peri-urban areas tend to be outside the reach of municipal water supply networks, the population often depends on surface and underground water. The share of the peri-urban population with access to improved sources of drinking water is likely to be closer to that of the rural than of the urban areas. Due to the higher density of population and economic activity and the absence of environmental regulations, peri-urban water quality is probably lower than that in rural areas, while the poor have to compete with factories and housing estates for underground water.

The water needs of the peri-urban poor are often met by informal vendors, privately operated wells, gifts from neighbours, rainwater harvesting and illegal connections. Distance to the main road limits the supply of water not only through piped networks, but also through tankers. Access to sanitation by the peri-urban poor is also more similar to that by the rural poor than the urban poor (Allen et al, 2006a: 334, 340; Allen et al, 2006b: 26). Due to the uncontrolled disposal of wastewater and solid waste and the pollution of water and soil, they also face typically peri-urban health hazards. The peri-urban poor may live in the 'worst of both worlds'. They are exposed to urban and rural health hazards: the communicable diseases and under-nutrition of

the rural areas and the non-communicable diseases, the injuries, over-nutrition and psycho-social disorders of the urban areas (Birley and Lock, 1998: 92-94).

With income poverty difficult to measure, a lack of data on peri-urban areas and the neglect of smaller cities and towns, it is difficult to make any statement on peri-urban poverty in small cities. At the most, one could say that land pressures are lower and distances to centres of economic opportunity are shorter, but there are also fewer economic opportunities in smaller cities than in larger cities and urban services are probably more deficient.

Reducing urban poverty

A major problem faced by the urban poor is exclusion. Migrants in China, Viet Nam and Central Asia are excluded from many urban services because they are registered in their (rural) place of origin and have no entitlements in their new (urban) place of residence. Migrants in Indian cities may not be able to use their ratio card issued in the rural areas. In other countries, the market excludes the poor from access to basic services from formal and informal providers. They may be excluded even if they are entitled to a free formal service, because waiting in line is costly for the poor and because bribes often need to be paid.

Due to the high cost of urban housing, many urban poor live in informal housing, i.e. housing which is not recognized by the authorities who refer to it as “slum”. By living in informal housing, the urban poor have inadequate or no access to services such as water supply and sanitation that others are entitled to. If they rely on the informal sector, they usually pay more and receive poorer services. The high cost deepens their poverty, while its low quality affects their health, their productivity and their income. Not having an address or having an address in a “slum” also affects the way service providers in the public and formal private sector treat the poor and makes it difficult for them to access health care and education, information and credit.

Recognition of informal housing and of the entitlement of its occupants is critical to improve capabilities, enhance productivity and reduce poverty. Regularization and upgrading of informal settlements has been the recommended solution for decades, but few governments are prepared to provide long-term land tenure security which is often a requirement for the improvement of housing conditions. At the most, basic infrastructure is installed in informal settlements. Fewer governments have pro-active programmes to secure affordable land and housing for the poor

Increases in urban land value are in fact driving the urban poor from suitable housing locations where they can access income-generating opportunities. They are evicted by landowners or the government to make way for private real estate and public infrastructure respectively, or become victims of gentrification of their neighbourhood. As land values rise, opportunities to find alternative affordable informal housing in the city decline and the urban poor are pushed to the peri-urban areas where income-generating opportunities are scarce. Increasingly, they are forced to rent housing in dilapidated or informally erected multi-storied buildings where they must live in overcrowded and dangerous conditions, but are invisible to the public eye.

Poverty in smaller cities

As a majority of the urban population and a large proportion of the urban poor live in smaller cities and towns, focusing poverty reduction efforts on those smaller cities and towns would be a worthwhile undertaking. Smaller cities have lower land prices and less land pressure. It is easier to provide services such as water supply and sanitation and improve access to health care and education, credit and information. The extent to which a smaller city actually offers these advantages depends not on its size. Local governments of small cities need to have the capacity and the political willingness to adopt inclusive policies. Thus, good urban governance and effective

urban management are critical to ensure access to adequate housing and to urban services for the poor. However, the poor will also need suitable employment.

Many smaller cities and towns have not exploited their economic potential. As central governments devolve powers to local government, smaller cities can benefit, as they may have more economic potential than planners in the capital city tend to believe. The devolution of powers should encourage local governments to explore new paths to economic growth, but they need the human and financial resources to do so. Central government should help local governments of smaller cities enhance their urban management capacity, including a capacity for local economic development, to draw economic benefits from the devolution of powers.

Regional economic integration and trade and transport facilitation can increase economic opportunities for erstwhile disadvantaged cities and towns, by providing access to new markets and to transport hubs (such as deep-sea ports) that connect them to new markets. Myanmar's reforms policy is closely watched by surrounding countries and cities. As its economy opens, there may be new opportunities to link cities in landlocked regions to the Indian Ocean without having to pass through the Singapore Strait. Thailand showed interest in developing a deep-sea port in Dawei which is 300 km over land from Bangkok. It would give the city access to the Indian Ocean and make the long-debated construction of a canal across the Isthmus of Kra unnecessary. China is keen on developing the port of Kyaukphyu and linking it to Kunming in Yunan, while India is interested connecting its land-locked northeastern states to the port-city of Sittwe.

Better urban management and local economic development do not necessarily lead to inclusive urban policies and poverty reduction, as local elites may capture most of the benefits, leaving the poor no better off. Good urban governance with inclusive decision-making processes and inclusive policies can ensure access to better housing and basic infrastructure services for the poor, while the establishment of labour-intensive industries and services would create employment for the poor. When new economic opportunities emerge, the poor must, however, have the skills to seize these opportunities; access to education and training, information and credit are thus essential. On the other hand, enhanced skills will increase the interest by the youth and the more enterprising to migrate to the large cities where opportunities are more numerous and wages are higher.

Challenges of urbanization

The challenges of mega- and peri-urbanization, economic growth, poverty reduction and environmental protection are too complex to be addressed by separate polices, as they are just the symptoms of a broad lack of planning and coordination of public, private and popular sector investments. In the open economies of Asia, planning has a strained relationship with free-market policies and tends to be undermined by corruption and political machinations. It is often only "enforced" (under pressure of the private sector), when it supports private-sector initiatives. Given these conditions, policies should aim at empowering the poor and local governments to compete in the market for labour and investments respectively, and to enable civil society to lobby for environmental regulations. This implies major efforts to build the capacity, in the broadest sense of the word, of the poor, of local governments and of civil society.

Redistributing the urban population

The development of infrastructure services and land for low-income housing in smaller cities and towns, in the wake of the devolution of powers to local governments, would help reduce housing and infrastructure deprivation in these smaller cities and towns, particularly in less urbanized parts of the country. However,

the benefits of the devolution are often captured by the local elite rather than employed to adopt inclusive urban policies. Moreover, smaller cities and towns have fewer economic opportunities than the larger cities and migrants will weigh the economic and social advantages and disadvantages of the smaller versus the larger city. Smaller-city development, in particular if it includes economic development, will likely reduce migration to the large cities, but is unlikely to stop it.

Moreover, policies to rebalance the urban population tend to be based on the assumption that rural-urban migration is the main source of urban population growth. This may be so in some countries (e.g. China where rural-urban migration has for a long time been controlled by regulations), but not in many others. Urban population growth is also the result of reclassification of rural into urban areas and particularly of natural growth. Natural growth explained 50-65 per cent of the urban population growth in India in 1961-2001 and 60-70 per cent of the population growth of Bangkok in 1960-2000. Although fertility rates are lower in urban areas than in rural areas, the urban population tends to be younger, with many women in the childbearing age.

Moreover, the decision to migrate is usually based on the expectation that the destination offers more and better opportunities for upward mobility than the place of origin. Such a decision by the individual or the household is difficult to influence with spatial policies, while policies that force people to stay or to move are often detrimental to the economy and thus opposed by employers. Authorities should not move people by force or try to prevent their movement by regulation. What they need to do, if they see the current population distribution as undesirable from an equity point of view is to create socio-economic conditions in the new location to motivate people to move. This would require heavy public investments in infrastructure, as private investors tend to prefer large cities over small ones, given the unique advantages of the agglomeration economies of large cities.

Some policies aim at developing a distinct urban hierarchy with a large city at the core and several cities around it in one or several parts of the country (often in the landlocked interior), away from the existing mega-city. This is a challenging task, as the outcome depends on a careful selection of the urban centres to be promoted, and the development of an alternative urban hierarchy requires long-term political and financial commitments. Macro-economic and spatial policies also need to be aligned, because the economic policies can have implicit, unintended spatial outcomes in conflict with the spatial policy. The selection of the city is often becomes political, as huge investments are required and landowners can make hefty profits. What policy works also depends on the circumstances (Richardson, 1981: 279).

The future of peri-urban areas

The built-up area of mega-cities and other large cities are likely to continue to expand due to urban population growth (natural growth, in-migration and annexation of rural areas) and economic growth (as economic activities require more space and families seek urban living with lower densities. A laissez-faire approach, as currently prevails in many countries, would ensure a continuation of the peri-urbanization of rural areas around the city with all this challenges discussed earlier. Is this a desirable outcome?

Academics are still debating the future of the peri-urban area. Some consider the peri-urban area as a transitory phase in the process of urbanization that will end when it has become a fully urbanized and built-up part of the city, because the co-existence of agriculture and non-agricultural activities is an inefficient use of land and a hindrance to the rational use of space to generate maximum economic returns (McGee, 2009: 11). Others see the peri-urban area as a unique and permanent third type of development between “urban” and “rural”, due to the lack of effective urban planning systems in many Asian cities (Webster (2002: 5-6).

A third group sees the area around the city as an essential part of the eco-system of any mega-urban region and the preservation of its natural resources as critical to the region's sustainability (McGee, 2009: 12). They argue that the necessity of urban green spaces and the importance of urban food security point to the need to maintain at least a rural-urban balance in the peri-urban areas or to convert peri-urban areas into green belts. They see the protection of peri-urban wetlands and the support for peri-urban agriculture as more important than the expansion of the built-up area. They favour leapfrog urban development beyond the green belt, although this would generate its own challenges.

Managing peri-urbanization

Angel et al. (2010: 74-75) refute the idea that cities take up a substantial share of arable land. Although many cities in Asia have expanded rapidly, they still cover less than one per cent of the total land area and only 2-4 per cent of all arable land of a country (table 7). They agree, however, that a massive urban expansion in the future may lead to a significant loss of arable land. In that case, new land would have to be brought into cultivation and productivity would need to be improved to produce the sufficient food to feed the growing population.

Table 7. Urban land cover in sub-regions of Asia (2000)

Urban land cover			
as percentage of total land area		as percentage of total arable land	
Eastern Asia and the Pacific	0.45	Eastern Asia and the Pacific	3.39
Southeast Asia	0.85	Southeast Asia	3.64
South and Central Asia	0.58	South and Central Asia	2.30
Source: Angel et al, 2010: 35			

Angel's main concern (2008: 149, 152) is a sufficient supply of land to accommodate the growing urban population and keep housing affordable. He rejects the idea of a green belt, as it limits the supply of land for urban expansion and increases land and house prices. He also questions the ability of regulators to prevent the uncontrolled conversion of agricultural land for urban use, as zoning has proven to be ineffective in guiding urban expansion and corruption makes it even less reliable. He favours a minimalist approach: (a) designate sufficient land to ensure adequate supply to meet growing demand, (b) prepare plans for urban infrastructure, and (c) acquire open spaces of sensitive habitats and for nature parks ahead of development. An arterial (secondary) road network may suffice to guide the development with housing, infrastructure and transport services.

He also recommends enlarging city boundaries to cover the expected expansion. The absence of an effective regulatory authority in a peri-urban area (due to a lack of authority, capacity, resources or political willingness to regulate and enforce) is a crucial factor in its environmental degradation. Reclassification of peri-urban areas as urban makes it possible, in principle, to impose regulations (and provide alternatives) that resolve incompatible land uses, minimize uncontrolled disposal of solid waste and wastewater, deliver urban infrastructure services and limit the pollution of water, soil and air. However, given the cross-boundary nature of the problems, an authority covering the entire mega-urban region (or more) would in fact be required.

Agglomeration advantages

Some argue that economies of scale will eventually turn into diseconomies of scale at which point a large city will stop growing and populations and investments move to other cities, with less congestion and more affordable land, housing and production

costs. It is, however, not clear where that point would be. With a population of 38 million and a GDP of US$1,875 billion in 2010, Greater Tokyo is not only the most populous city, but also the largest urban economy in the world (UNPD, 2014: 13; Foreign Policy, 2012). Poor urban management and a lack of inclusive policies may be more important to determine the fate of a city and its population than its size. Many urban-economic policies therefore aim to exploiting the economies of scale and agglomeration of very large cities and mega-urban regions.

Rather than looking at each city or town separately, one should see them as the components of a network and tap their comparative advantages. One approach is the development of sub-centres within or around the mega-city. Such decentralization may improve the city's efficiency, but if sub-centres are developed too far from the main city, there may not be agglomeration economies, while sub-centres close to the city will likely merge with the city eventually. Corridor development compensates for the limited viability of the individual urban centres by enabling development along a inter-city transport corridor. Reduced transport costs are expected to reinforce the advantages of the end points and promote developments at the midpoint and along the axis (Richardson, 1981: 273-275).

Some see an urban corridor developing from Tokyo through Seoul to Beijing. Others have suggested that the corridor could extend beyond Beijing to Shanghai and Hong Kong. As another corridor is developing from Bangkok through Kuala Lumpur to Singapore with a possible extension to Jakarta and Surabaya, the Northeast-Asian and Southeast-Asian corridors could meet to form an Asia-Pacific corridor from Tokyo to Surabaya. These corridor developments occur without advanced planning by governments(s). In India, the government is developing a transport corridor from Delhi to Mumbai that is expected to bring economic growth to areas in between.

Urban corridors do not change the urban population distribution and reinforce the economic primacy of the large city, but they promote the economy of smaller cities and towns along the corridor. Their impact can be enhanced through a clustering of complementary activities (management and marketing, R&D, manufacturing, support services etc.) in different locations within relative proximity and connected through transport links. The cluster offers what a single location can rarely do: low-cost labour and land, quality physical infrastructure, efficiently performing institutions and highly skilled professionals. Clustering can yield a virtuous cycle of innovation, knowledge sharing and entrepreneurship, and increase employment, productivity and income (Istrate et al. 2011: 4). Certain parts of an urban corridor can become centres of labour-intensive manufacturing, providing employment to the low-income population.

Conclusions

The processes that affect peri-urban areas around large cities in Asia have several negative impacts: (a) inefficient urban development, as infrastructure services follow rather than precede development, (b) environmental degradation and competition and conflicts over natural resources, and (c) lack of income-generating opportunities for the poor who are pushed out of the city due to high land and house prices and need to commute to the city to earn an income. The main drivers of peri-urbanization are the urban middle class and the rich, local and foreign investors, and national government agencies, while the negative impacts are the result of a lack of effective planning instruments or of a political unwillingness to enforce plans and regulations in peri-urban areas. The lack or non-enforcement of regulations keeps production costs low in peri-urban areas which often become engines of economic growth.

Spatial policies dealing with urbanization and peri-urbanization need to be consistent with macro-economic policies to have the maximum impact. However, economic and spatial policies do not suffice to reduce poverty, as the poor lack the capabilities to

seize any new economic opportunities due to a lack of access to adequate housing and infrastructure services, to education, training, credit and information. The poor need to be empowered to participate in the labour and product markets, to negotiate with government agencies and voice their opinions in decision-making processes. Empowerment can be achieved through saving-and-loan groups, community-based organizations and labour unions. They would complement government interventions to achieve spatially more equitable economic growth and urbanization.

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