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Urbanisation

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Urbanisation

Contents

Urbanisation refers to complex and irreversible processes of social change that are expressed in the growth of urban settlement and economic forms and in large agglomerations. Urbanisation is a driver of economic development, and at the same time is often accompanied by a polarisation of income levels.

1 Definitions and terms

The term *Urbanisation* encompasses a complex bundle of processes of social change that is characterised by the change of settlement form and structure (▷ *Settlement/settlement structure*) and the distribution of the population in an area. The German term for urbanisation, *Urbanisierung*, has largely replaced the term *Verstädterung*, although the latter is still in use.

Urbanisation processes as social change processes that lead to a concentration of people in urban settlements have existed since the emergence of early urban cultures. The result of these processes is described, according to the temporal and regional context and particular research interest, as a 'ceremonial centre' (Wheatley 1971), 'oriental city' (Lapidus 1969), 'colonial city' (King 1976) or 'citizens' city' (Weber 1921). But the process that is equated with urbanisation in the narrow sense did not begin until industrialisation, which spread out from Europe in the 19th century. This process was characterised by the advent of new production and transport technologies (economies of scale), a transformation of the family structure from the large family to a small one, the transfer of the economic basis from ▷ *Agriculture* to non-agricultural production, and a mass immigration into the cities. This process developed in Europe and North America in the 19th and 20th centuries with varying speeds and intensities.

Finally, there was an additional impetus to urbanisation starting in the middle of the 20th century, which involved, in different ways, all countries of the Northern and Southern hemispheres, and still continues today. It is characterised by tendencies associated with global change in production, economies, the communication network, the value systems, urban ▷ *Lifestyles* and finally spatial manifestations.

This article focuses on the latter process, since it particularly shaped the heterogeneous structure of contemporary urbanisation to a large extent.

Urbanisation in general is deemed a driver of economic development in a country or ▷ *Region*, and at the same time, it is accompanied in many countries by a polarisation of income levels, social exclusion (▷ *Segregation*; ▷ *Gentrification*) and the emergence of slums and informal settlements.

In addition to the size and ▷ *Density* of the settlements, the essential aspects of urbanisation are a profound change in the economic and social structure (▷ *Social change*), as well as the diversity of the manifestations, which depends on the context.

2 Characteristics

As an aspect of social change, urbanisation cannot be narrowed down to physical or demographic phenomena; it also encompasses the change of ways of life and economic forms, social structures, environmental conditions, and the development of urban lifestyles. In general, the change of the economic foundation from agriculture to production and ▷ *Services* is deemed a central factor.

Regardless of this broadly conceived meaning of urbanisation processes, demographic indicators – the degree and rate of urbanisation – are overwhelmingly used in the interest of international comparability. This is based on a simplified classification of *urban* or *rural*. Most countries use the number of residents or the population density as a threshold value and/or administrative criteria (location of a regional administration) as a criterion. The spectrum of the lower limit values for the classification as *urban* is very broad. Only a relatively small number of countries combines economic characteristics (proportion of non-agricultural jobs) with criteria referring to the provision of ▷ *Infrastructure* (streets, water supply, electricity, wastewater systems) (UN Habitat 2007).

2.1 Growth of the urban population

The rate of urbanisation, frequently also described as urban growth, indicates the growth of the urban population of a certain area (country, region, world) relative to a certain time period (frequently a year). The growth rate of the urban population is especially important for policymaking and ▷ *Planning* because it indicates the dynamic of the social and (therefore) the spatial change processes.

The growth of the urban population and the dynamic of urbanisation differ significantly from region to region and over the course of epochs. Although between 1950 and 1955 the annual growth of the urban population still averaged around 3.1% globally, today (2010 to 2015) it lies at 2.1% (UN DESA 2012: 166 et seq.). In less developed regions and in the least developed regions, however, this value is higher, at 2.65% and 3.7% respectively (UN DESA 2012: 167). Moreover, the economic prerequisites differ enormously.

2.2 Degree of urbanisation

The degree of urbanisation identifies the relationship between the population living in cities and the total population in a certain area (country, region, world). To attain comparability of the degree of urbanisation of various countries and regions, a uniform definition for the category of city ▷ *City, town* or the term *urban* would be desirable. However, despite the efforts of international organisations, there is no such definition. In various ways, each country's respective criteria for the minimum size of a settlement may include the percentage of non-agricultural jobs, the urban infrastructure, and other factors. Despite these issues, the degree of urbanisation is the most frequently used indicator in the world for urbanisation phenomena. A sharp delineation between rural settlements and cities is increasingly seen as impossible today.

2.3 Density

The density of a settlement, as a sole criterion for delineation, is only partly suitable as an indicator of urbanisation processes. Rural areas in Bangladesh, for example, exhibit the same or a higher population density than cities in North America that stretch out into their environs. With their two-storey buildings, the settlement densities in the slums of Asian cities are up to 2,000 residents per hectare, whereas in densely built up European cities (▷ *European city*), where five storeys are common, it is 700 residents per hectare.

2.4 Development trends

The degree of urbanisation before the 18th century was under 3% worldwide. Around 1900, in the wake of industrialisation and the associated growth of cities, that value increased to 14% and in 1950 reached 29% (UN DESA 2012: 4). It is assumed that in 2008 the 50% threshold was exceeded.

The global urbanisation trend will continue in the future, to up to 67% in 2050, for example (UN DESA 2012: 4). Above all in less developed countries and regions, the urban population will increase drastically by about 3.2% between 2000 and 2050 (see Table 1) and its share will increase from 24% (2000) to 50% (2050) (UN DESA 2012). Out of a total of the further 3.4 billion people who became or will become urban dwellers from 2000 to 2050, around 3.2 billion live or will live in cities in the poor regions of the world (UN DESA 2012). Most of them will live in slums, according to current trends.

The figures in Table 1 show that urbanisation occurs mainly in developing nations and leads to a further increase in the poor urban population there.

Table 1: Urbanisation trends

Characteristic	2000	2015	2050	Growth 2000-2050
Urban population of the world* in billions	2.9	3.9	6.2	3.4
Degree of urbanisation in %	46.7	53.9	67.2	
Urban population of less developed regions* in billions	2.0	2.9	5.1	3.2
Degree of urbanisation in %	40.1	48.7	64.1	
Slum population** in billions	0.92 [2001]	1.3		
% of the urban population	31	33		

Source: The authors, based on *UN DESA 2012: 136 et seq.; **UN Habitat 2001

The following table shows that the largest growth dynamic in the world is in cities with fewer than five million residents and, with 24.3% in 2025, in cities with between 500,000 and one million residents (UN DESA 2012: 9). In the less developed regions, however, the strongest growth is in cities with one million to five million residents or in megacities (UN DESA 2014: 79).

Table 2: Urbanisation trends according to city size

City size	2000	2014	Growth 2000-2014
< 0.5 million	1.5 billion*	1.9 billion*	400 million
0.5-1 million*	291**	363*	72 million
1-5 million*	659**	827*	168 million
5-10 million*	167**	301*	133 million
> 10 million*	251**	453*	202 million

Source: The authors, based on *UN DESA 2014: 79;
****UN DESA 2004: 85**

3 Causes of urbanisation

The growth of the urban population is normally attributed to the following causes:

1) Natural population development: In the next 30 years, the urban population of the Earth will grow by more than two billion. Natural population development is held to account for the very disparate growth in the individual regions of the world. To that end, improved hygienic conditions, especially for the poorer urban population, and the political situation play an important role.

2) Migration: Rural-urban migration constitutes the largest growth factor, especially in dynamically growing cities. ▷ *Migration* is driven by the comparably better living conditions in the city, the opportunities to earn a monetary income, and sometimes also the status associated with life in the city (‘pull factors’). Normally, migrants are the most mobile, flexible, and best educated residents of the village. Unstable political systems (in countries south of the Sahara, for example), wars, famines and natural disasters are also significant drivers of migration into the cities (‘push factors’). Today, rural-urban migration is differentiated by permanent versus temporary migration, circular migration, and migration between cities of various sizes.

3) Political-administrative rezoning of rural areas: In many countries, the growth of the urban population is also attributable to the territorial growth of cities. An exact recording of urbanised areas is difficult, since data is determined based on national, territory-based statistics. These can include regions that might otherwise be characterised as rural. Conversely, the urbanised area sometimes encompasses multiple autonomous or partly autonomous administrative units that are brought together in a ▷ *Metropolitan region* (such as Metro Manila).

4) Global factors: In addition to local dynamics, integration in regional economic areas and the global interconnectedness of production and service locations is today of decisive importance for urbanisation processes (▷ *Globalisation*). For this reason, global or regional economic crises and/or political changes have a significant impact on local urbanisation trends.

4 Large urban formations

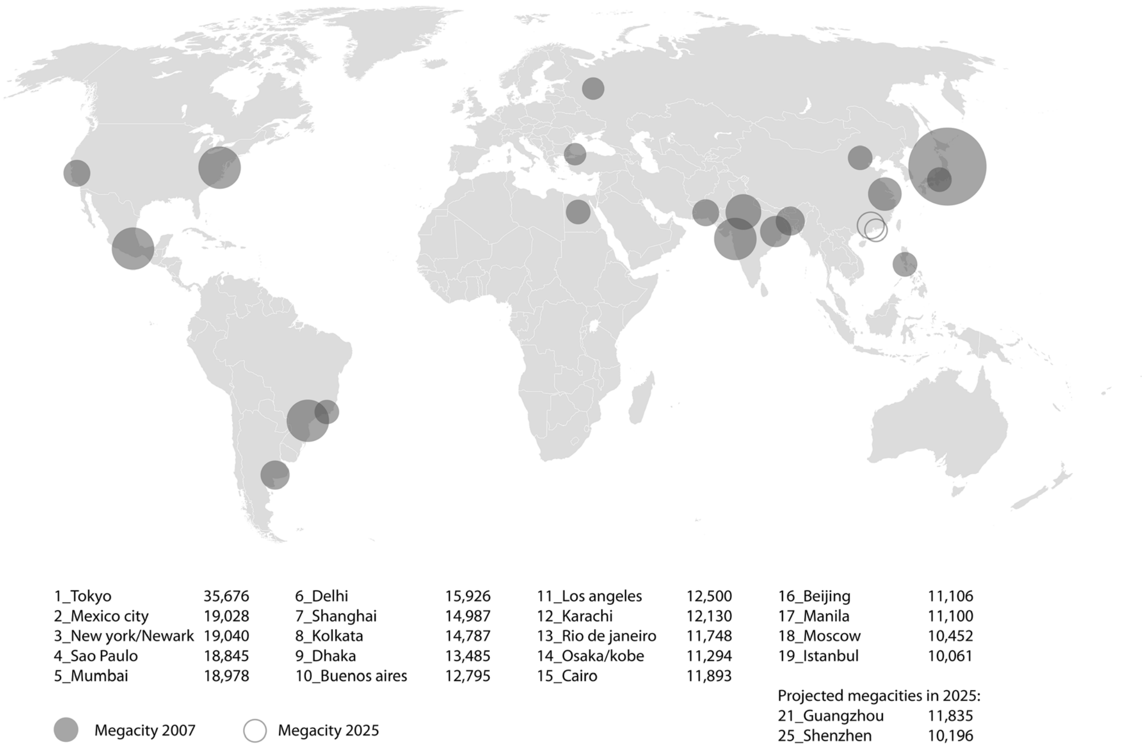
Contemporary urbanisation processes lead to urban formations that are not comparable with cities from earlier phases of urbanisation as regards their magnitude and complexity. Due to their significance and planning challenges, three of these forms of urbanisation are addressed below.

4.1 Megacities

The size criterion for megacities has been modified in recent years from five million to ten million residents (cf. Kraas/Mertins 2008: 4). They often have a monocentric structure (such as London or Mumbai), and others are polycentrically (▷ *Polycentricity*) organised (such as Tokyo, which consists of 23 autonomous districts). The term *metropolis* or *metropolitan area* is also frequently used (▷ *Metropolis / Global City*) in connection with megacities.

The development of the last decades shows a clear geographic shift in the emergence of large agglomerations (over five million residents) from Europe and North America to Asia (▷ *Agglomeration, agglomeration area*). Figure 1 provides an overview of the global distribution of megacities. For 2014, United Nations statistics list a total of 30 megacities with over 20 million residents, of which 17 are in Asia, two in Africa, three in South America, three in Europe, and three in North America. Megacities exhibit a high degree of economic interconnection and functional diversity that are not captured, or are only indirectly captured, by the criterion of size. They typically feature peri-urban settlement areas that are in part semi-rural and extend far into the environs. The urbanised area is also often deemed a metropolitan region for administrative purposes.

Figure 1: Map with distribution of megacities



Source: UN Habitat 2008: 6

4.2 Global Cities

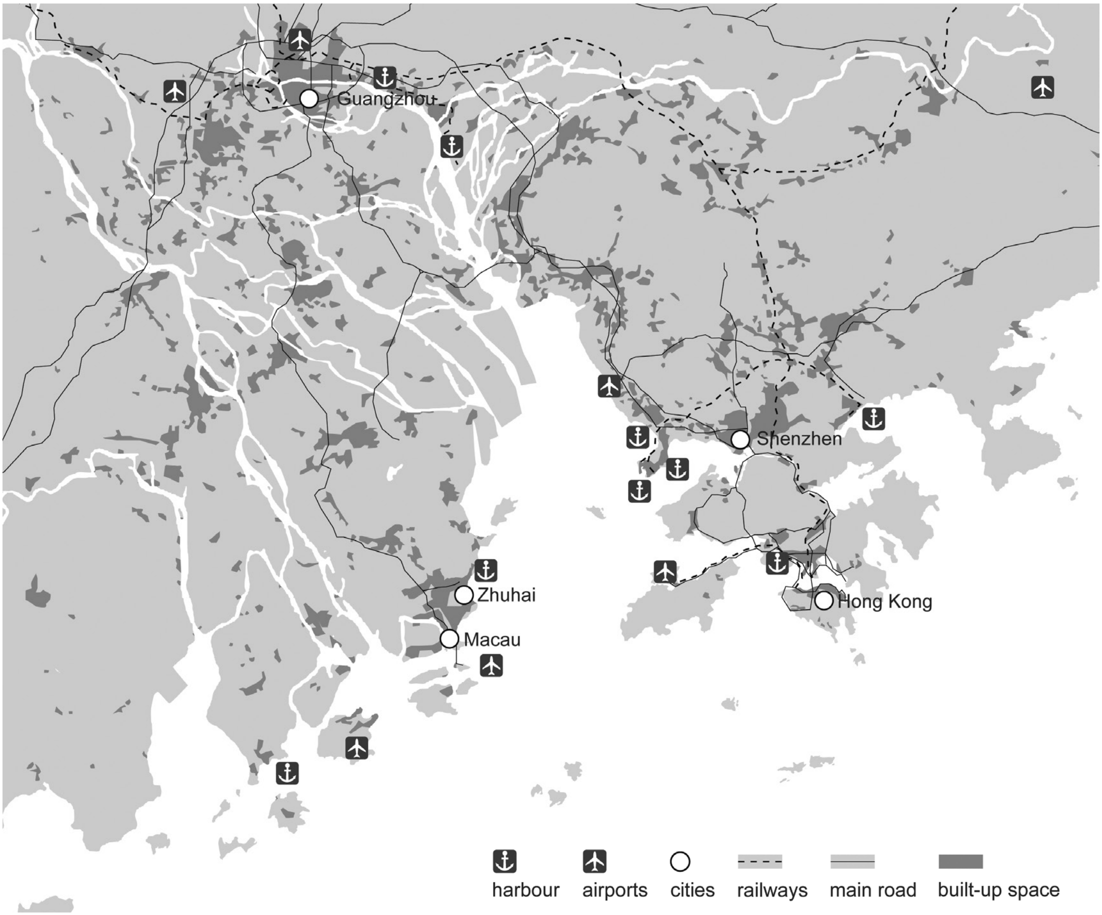
Global Cities are urban agglomerations which have supra-regional significance by being embedded in global markets and networks (▷ *Networks, social and organisational*). The literature mainly refers to global financial markets and company-oriented service providers. As hubs in the global service provider network, global functions are in the foreground, however, they can also take on a bridging function for the local economy. The separation of headquarters and production sites and a trend toward the islandisation of individual living environments of their residents is typical for Global Cities: while the employees in international firms withdraw into gated communities, a local low-wage sector provides basic services (Sassen 2001).

4.3 Mega-urban regions

In many countries, large, partly urbanised regions have formed as a result of national politics and the particular historical and economic circumstances; they far exceed the size of individual megacities and have a clear supra-regional or global significance. Typically, such urban regions (▷ *Urban region*) entail multiple urban hubs and overspill administrative boundaries. They are designated ‘mega-urban regions’ as they undermine the previously common delineation criteria of urban versus rural and exhibit forms of internal differentiation and a distribution of functions that do not fully correspond to either urban or rural systems (▷ *Relations between cities and surrounding regions*). Depending on the context, they are referred to in terms of 'desakota' (McGee 1991), the 'mega-urban landscape' (Herrle/Fokdal/Ipsen 2014), 'planetary urbanism' (Brenner 2013) or 'metapolis' (Ascher 1995).

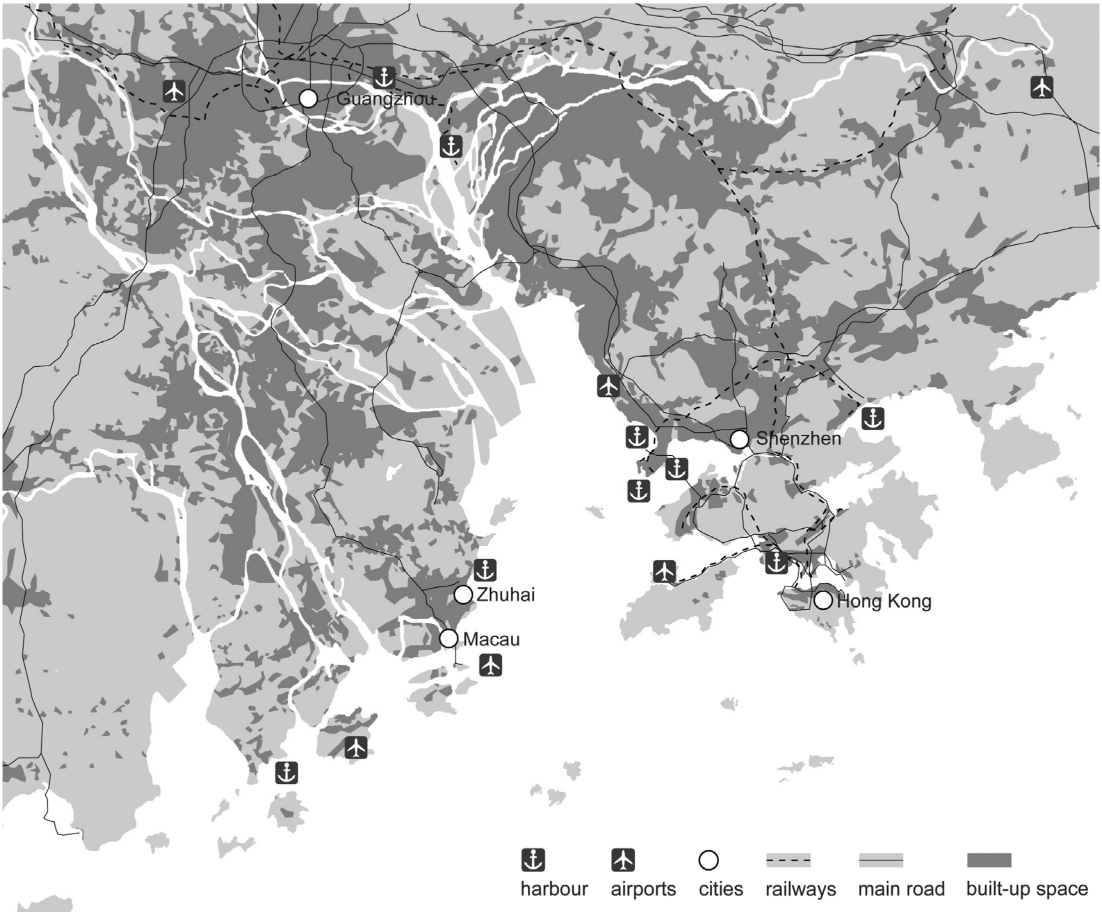
A typical space of this type is the Pearl River Delta in southern China, which encompasses around 120 million residents (cf. e.g. Herrle/Fokdal/Ipsen 2014); it is shown in Figures 2 and 3, and is urbanised in a patchwork of rural and urban regions on a large scale in which highly densified cities are integrated as polycentrally distributed cores. The dynamic is fed by its spatial proximity to Hong Kong, by investments from the entire world, and a migrant stream from all over southern China.

Figure 2: Developed areas in the Pearl River Delta in southern China in 2000



Source: Herrle/Fokdal/Ipsen 2014: 22 based on data from the Survey and Mapping Office (2000/2007), Lands Department, Hong Kong

Figure 3: Developed areas in the Pearl River Delta in southern China in 2007



Source: Herrle/Fokdal/Ipsen 2014: 23 based on data from the Survey and Mapping Office (2000/2007), Lands Department, Hong Kong

5 Heterogeneity of current urbanisation processes

The current wave of urbanisation does not lead to a uniform city type, but rather thoroughly different urban formations – not only globally, but also within individual regions and countries. A few examples should illustrate this heterogeneity:

a) A stable political situation, connections to national and global markets in connection with a significant economic development and a proactive urbanisation policy formed the basis for the emergence of mega-urban spaces with up to 120 million residents, such as the Pearl River Delta in southern China (see Figs. 2 and 3) or the Yogyakarta corridor in Java, which defy unambiguous classification as *urban* or *rural*.

b) Cities in crisis regions, such as in Africa south of the Sahara, grow through migration caused by war, without new jobs with secure incomes arising through a growing economy. This results in an exacerbation of existing social disparities and thus of conflicts in urban areas. Diminishing traditional support networks, the impoverishment of households, and sinking self-help potential lead to a loss of social security.

c) In a few Latin American countries such as Brazil, the economic dynamic is minimal, despite strong integration in the world market, while the income disparities are extreme. This causes informal settlers to be excluded from the supply of basic goods and services and the poor population to be pushed into stigmatised neighbourhoods. A comparably high degree of urbanisation, which, at over 70%, is equal to that of the old industrialised countries, causes the cities to grow slower and mainly on the peripheries, through informal settlements. Despite a highly politicised ▷ *Civil society*, the local administrations are inefficient. Fundamental principles of rule of law are not sufficiently implemented at the municipal level (such as land rights and fair taxation).

d) Typical of urbanisation processes in North America is dualisation in a generally highly densified, socially heterogenous downtown, on the one hand, and low-density peripheries growing far into the environs on the other. In European countries, sometimes also in the transformation countries of Eastern Europe, shrinking cities also appear as a consequence of demographic change and political changes (Oswalt/Rieniets 2006; ▷ *Demographic change*; ▷ *Shrinking cities*).

6 Challenges for planning and policymakers

The tendencies outlined here entail complex tasks for planners and policymakers. A few of these challenges are addressed below.

6.1 Urban planning and urban management

In many countries, the magnitude and complexity of the processes of contemporary urbanisation is set against a clear lack of steering capacity. In countries with a significant urbanisation dynamic, it has become evident that the familiar instruments of spatial planning – from master plans to the preparatory and binding land-use plans familiar in a German context, to strategic spatial plans and layout plans – can hardly keep up with the dynamics and consequences of urban growth (▷ *Preparatory land-use plan*; ▷ *Binding land-use plan*). UN Habitat postulates a gap between 'outdated planning instruments' and the requirements of the 21st century (UN Habitat 2009: 11). Frequently, plans are overtaken by the dynamic of informal processes and their implementation is circumvented by particular interests. The problem in this process lies less in the consistency of the plans than in not being able to implement them and a tenuous link to reality. Many plans fail due to lack of clarity in the stakeholder landscape, the waning authority of the state, and the associated informality of spatial development. In particular, there is virtually no opportunity in poor countries to steer or guide informal settlement activity.

Therefore, in most metropolises today, ▷ *Strategic planning* and stakeholder strategies with an emphasis on consensus-forming negotiation processes while including private investors and the civil population play a decisive role in steering. This corresponds to an orientation toward governance and management approaches and coproduction strategies, meaning the acknowledgement of stakeholders as equally entitled partners in the development process (cf. UN Habitat 2009: 72 et seq.). Depending on the scaling, planning is also operated as an allocation of macro-infrastructure, which induces development, or as action planning on the neighbourhood level in cooperation with the residents (▷ *Participation)*.

6.2 Informality

The term *informality* was initially developed in studies by the International Labour Office (ILO) in connection with recording local economies, and later transferred to other areas of social and urban development. Informality in ▷ *Urban development* refers in the first place to the development of settlements not regulated by state institutions (▷ *Informal planning*). It is frequently connected with occupying private or public land and is attributed to the failure of state or urban systems to supply all population groups with land, infrastructure (water, sewage disposal, streets), social services, safety, etc. In many countries, there are also grave deficiencies in the state's capacity to steer development, which results from deficits in local ▷ *Governance* and a lack of resources. The transition between formal and informal settlement activity is fluid: frequently, receipts for the payment of power and water bills are deemed to legitimate such activities. In many cities, informal settlements were initially nonexistent in the official city plans, although they occupied a large part of the urbanised area. 'Invasions' on the outskirts of large cities that are 'planned' (and sometimes agreed with the city administration) are typical in some Latin American countries. They quickly developed into independent cities with more than one million residents, which were legalised as autonomous local political units after decades of toleration.

Informal settlement development is not limited to the building activities of the poor urban population. Unplanned industrial operations and residential settlements for the middle class that bank on *ex-post* legalisation arise along the arterial roads of the large metropolises and their peripheries in Asia. This systematic process, which is driven by developers, serves a middle-class clientele disadvantaged by the markets. In India, it is called 'illegal land subdivision' (Risbud 2005: 160) and is responsible for the large-scale reuse of agricultural areas as building plots.

Informal economies are another significant aspect of informality, and account for up to two-thirds of all jobs in developing nations (UN-Habitat 2007: 9).

In more recent literature, the concept of informality has been expanded to other areas of unregulated social and private life (AlSayyad 2004; McFarlane/Waibel 2012; Herrle/Fokdal 2011).

6.3 Slums

Documents of the World Bank and the United Nations describe slums as inner city areas lacking infrastructure and the supply of basic goods and services that are occupied by poor families whose houses are built of temporary materials or are in a wretched state. The proportion of slums in sub-Saharan Africa is estimated at over 70%, and in Asia it is between 30% and 40% (UN Habitat 2010). Not all slums are informal or illegal. The use of land is highly commercialised through contracts and agreements in slums as well, and is characterised by power and exploitation structures. While *slum* is still a commonly used term, it has been criticised due to its negative connotation (e.g. Gilbert 2007) and largely replaced by the term *informal settlement*.

In most countries, local designations are used for settlements with poor living and housing conditions (such as *bidonvilles, favelas* etc.), that each have their own connotation depending on the context. An extreme form of this are the *pavement dwellers*, such as those in India, who lack access to technical infrastructure and sometimes live on the streets for decades in the most rudimentary of temporary shacks.

With the first Habitat conference in 1976, a change occurred in the perception of slums: they were no longer seen only as a problem, but also as a solution for the housing problems of poor migrants that originated from the social context (cf. Huchzermeyer 2011). Not only the sheer size of these areas makes them a relevant factor in the development of urbanisation, but also their function as residential and work locations for poor families without a formal income who supply a middle class and inner city companies with cheap goods and services.

A number of effective strategies for improving the living conditions in these areas have now been developed that increasingly envisage the intense ▷ *Participation* of the residents in all planning phases.

The spectrum of government measures extends from expulsion and demolition of the housing without compensation, to tolerance of the settlements, resettlement to the peripheries in ‘sites-and-services-projects’ undertaken by the cities, and to in situ renovations and the issuing of rights of use or possession with the participation of the residents or even initiated by them (Boonyabancha 2009; Mitlin 2008).

6.4 The environment and sustainability

According to a model calculation based on a concept by Wackernagel and Rees (1996), the ecological footprint of the Earth currently exceeds 21% of our planet’s biocapacity, meaning its ability to reproduce resources and absorb waste (UN Habitat 2008: 162). This development corresponds with accelerated urbanisation processes: On only 2% of the Earth’s land mass, in 2005 cities consumed around 75% of all natural resources (UNEP 2013: 14) and emitted more than 60% of the greenhouse gases that affect the climate (▷ *Climate, climate change*) (UN Habitat 2016, *WBGU* [German Advisory Council on Global Change] 2016).

The risks of climate change and the scarcity of resources are overlaid on the already precarious living conditions of the lower income classes in the cities, which include no or limited access to drinking water, sewage and waste management, and no or virtually no health care provision. UN Habitat estimates that the lives of ten million people are threatened by climate change (UN Habitat 2016). Especially in developing countries, climate change will increase migration and poverty (*WBGU* 2007: 2).

The energy consumption of countries with high incomes (UN Habitat 2008: 162) and the lifestyle of urban elites are deemed to play a decisive role (Satterthwaite 2008).

Even if the figures named are not uncontroversial (cf. Dodman 2009), their magnitude indicates the importance of global and national strategies for managing urbanisation processes. Therefore, cities are seen as one of the key factors in sustainable development (▷ *Sustainability*) and safeguarding the future (cf. UN Habitat 2008; Bulkeley/Betsill 2006).

There is consensus that the complexity and trans-nationality of urbanisation processes, despite the fact that they are difficult to influence through national policies, constitute decisive factors in the development of sustainable forms of settlement development. For this reason, the approaches for improved steering of these processes must be designed on a multi-scalar and transnational basis and – beyond spatial planning – encompass social, commercial, and economic aspects.

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