# TOPIC GUIDE:

Planning for Sustainable and Inclusive Cities in the Global South



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# Topic Guides

Welcome to the Evidence on Demand series of Topic Guides. The guides are being produced for Climate, Environment, Infrastructure and Livelihoods Advisers in the UK Department for International Development (DFID).

The purpose of the Topic Guides is to provide resources to support professional development. Each Topic Guide is written by an expert in the field. Topic guides:

- Provide an overview of a topic
- Present the issues and arguments relating to a topic
- Are illustrated with examples and case studies
- Stimulate thinking and questioning
- Provide links to current best 'reads' in an annotated reading list
- Provide signposts to detailed evidence and further information
- Provide a glossary of terms for a topic.

## About this Topic Guide

This Topic Guide, *Planning for Sustainable and Inclusive Cities in the Global South,* explores the poverty and environmental challenges facing cities of the global South, and current thinking on how urban planning and management of the built and natural environment can be harnessed to address these challenges.

The Topic Guide is written for DFID staff, but is relevant to all development professionals. It is suitable for both non-experts and experts on urban planning. The **aim** of the guide is to provide information to enable development professionals to take practical steps in their day-to-day work, and highlight sources of further information.

The **objectives** are to enable advisers to:

- be better able to influence policy and decision makers for impact on poverty reduction;
- examine the challenges of urbanisation and principles of sustainable and inclusive urban planning;
- indicate how these principles can be integrated across sectors to promote sustainable urban development and poverty reduction;
- understand the nuances of working in low-income cities, informal urban contexts and fragile situations;
- highlight where donors can contribute in engaging with governments, the private sector and civil society on urbanisation.

The **central message** of this Topic Guide is that urban planning has the potential to bridge urban divides, but only if interventions are locally-appropriate and pro-poor in intent, and if local governance is equitable and transparent. The **challenges** addressed in this Topic Guide are that problems are most acute where capacity to manage urban change is least effective, and that planning interventions tend to favour elites and disadvantage the poor. These challenges mean reconceptualising interventions to address social need, build local government capacity, ensure open and participatory processes, protect sensitive environments and focus resources on areas of most need.

## About the author

This Topic Guide has been written by lead author, Alison Brown, Professor of Urban Planning and International Development at Cardiff University, with guidance from DFID staff, particularly Simon Ratcliffe, and Abhijit Ray. The Topic Guide has also benefited from reviews by Professor Yap Kioe Sheng, and inputs from PhD students at Cardiff, Gayle Wootton and Saeed Ud Din Ahmed. The views expressed here are those of the author and not DFID or Cardiff University.

# Summary of key points

Managing urban growth has become one of the most important challenges of the 21st century. In cities with transparent governance and effective legislation, urban planning can be a creative tool for fostering regeneration or directing urban growth. However, some of the most acute challenges of rapid growth – poverty, environmental pollution and risk – occur in the poorest and most fragile states, especially in sub-Saharan Africa and South Asia, where innovative problem-solving is required.

The philosophy of *planning sustainable and inclusive cities* integrates the principles of *sustainable development* (e.g. resource and energy conservation and environmental improvement) with those of *social inclusion* (e.g. reducing poverty and improving access to housing and urban services). Urban planning interventions need to be fit for purpose, based on a sound understanding of the local environment, politics and economics, with a recognition of contextual and capacity limitations, and the degree of political willingness to intervene. A central problem is that, in many countries, planning legislation is inherited or outdated and is no longer fit to deal with 21$^{st}$ century challenges of growth, poverty or climate change.

Drawing on a wide review of practice and academic literature, this Topic Guide summarises key debates to provide an understanding of the potential and limitations of urban planning as a tool for urban management and governance. The report has seven chapters. The links to chapters are clickable.

Following the introduction in Chapter 1, Chapter 2 examines the context of urban planning, emphasising the importance of history and legacy, the role of local government as a key delivery agency of urban planning, and limitations of planning under different paradigms of land ownership. The implications for practice suggest the need for reliable population and urban statistics and effective local governance.

Chapter 3 outlines the complex challenges of informal urban development, now the norm in many cities of the global South. The chapter looks at informal settlements and housing (considering housing as both a service and an asset), evolving approaches to housing policy and the informal economies, which form the main source of livelihoods for the urban poor. The implications for practice are that understanding the complexity of informal cities is a crucial role for urban planners.

Chapter 4 discusses spatial planning approaches typical of formal planning systems, including the genesis of urban planning, principles of participation and the challenge of working in poorly developed administrations. Techniques of strategic planning, development management, action planning and common planning tools are also explored. The implications for practice suggest the need for locally-appropriate and pro-poor solutions to urban challenges that integrate physical and institutional change.

Chapter 5 examines the potential for intervention where informal development is the norm, examining issues of inclusion/exclusion in cities that necessitate innovative use of urban planning tools. The chapter explores drivers of exclusion, including gender and ethnicity, before examining the potential of rights-based approaches to development, and the right to the city agenda, to frame new planning paradigms and inform slum upgrading and community-led development initiatives. Finally, the challenge of working in fragile states is explored.

Chapter 6 examines concepts of sustainable development and sustainable cities. It first explores the role of urban planning in conserving urban food, energy and water resources, before examining concepts of resilience and climate change adaptation in responding to urban hazards. The chapter examines urban planning as a key delivery mechanism for fostering sustainable cities through compact city design and public transport-led growth. Finally, the role of technology in improving data access and responsive urban design is examined.

Overall, the guide argues that urban planning has huge potential to address the major threats to cities of the 21st century – poverty, inequity and environmental risk – but its potential is undermined by the dominant market paradigms, and a stronger social-justice approach is needed to address challenges posed by dominant market paradigms.

# 1. Introduction

In 2008 the world passed a milestone when, for the first time in human history, more than half the world's population lived in cities. Yet growth has not slowed and predictions suggest that by 2050 67% of the global population will live in cities. The majority of growth will take place in the global South, where environmental and governance challenges are most acute. This Topic Guide explores issues that urban planners and donors must address.

Challenges to achieving effective urban planning are acute. Urban planning is a process of negotiated change involving key players driving urban development, including governments, civil society and the private sector. It has considerable potential to address the major threats of the 21st century – poverty, inequity and environmental risk or degradation. Yet current neo-liberal and free-market economic policies demand deregulation that only acknowledges urban planning if it supports the market, and strategic pro-poor choices are consistently subverted by short-term policies and corruption. This Topic Guide demonstrates the significant potential of urban planning, but argues that it can only be effective if integrated with fundamental change that prioritises people and the environment above economic growth.

The years 2015 and 2016 are marked by several milestones that affect cities. The first is the Post-2015 Development Agenda, which will follow the *Millennium Development Goals* (MDGs) (UN, 2014b) with new *Sustainable Development Goals* (SDGs) (UN, 2014a). The SDGs will apply to all countries, and urban planning will be a key delivery mechanism. The second milestone is *Habitat III,* the 2016 *UN Conference on Housing and Sustainable Urban Development* (UNH, 2014a), which is likely to set a new policy focus on cities.

This Topic Guide is part of a wider programme by DFID and other donors to highlight the importance of cities. DFID's priorities cover education, health, economic growth and the private sector, governance and conflict, climate and environment, and water and sanitation, and DFID has programmes in 28 countries[1].

Among multilateral donors, the World Bank has a strong urban focus (WB, 2014c). Its 2009 urban strategy, *Systems of Cities Harnessing Urbanisation for Growth and Poverty Alleviation* (WB, 2009; 2014a) recognises the need to take account of urban growth, integrate strategy across urban agglomerations and develop new diagnostics for urban planning. The regional development banks, Asian Development Bank, African Development Bank and Inter-American Development Bank, also focus on urban issues, prioritising loans housing, infrastructure (transport, energy, water, waste management, broadband etc.), governance and private-sector development (ADB, 2014; AfDB, 2014; IADB 2014).

UN-Habitat (United Nations Centre for Human Settlements), the UN agency with a mandate to promote sustainable towns and cities, makes urban planning a priority and has many useful downloadable publications. The UN-Habitat *2014-2019 Strategic Plan* addresses seven focus areas: urban legislation, land and governance; urban planning and design; urban economy; basic services; housing and slum upgrading; risk reduction, and research; and gender as a cross-cutting area. However, most bilateral agencies have moved away from specific urban programmes.

This Topic Guide focuses on cities in the *global South*, where urban expansion has outpaced national and local regulatory and planning frameworks. However, there are many regional differences in the drivers of urbanisation and character of cities. The term *global South* here refers to low and middle-income countries with high levels of poverty, as defined by the World Bank (WB, 2014d). The OECD Development Assistance Committee (DAC) *List of Official Development Assistance (ODA) Recipients* (OECD, 2013) classifies developing countries slightly differently. DFID programmes focus on Asia and Africa, but many excellent urban planning innovations are emerging from Latin America, with several cited as case studies in this guide.

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[1] Afghanistan, Bangladesh, Burma (Myanmar), Democratic Republic of Congo, Ethiopia, Ghana, India, Kenya, Kyrgyzstan, Liberia, Malawi, Mozambique, Nepal, Nigeria, Occupied Palestinian Territories, Pakistan, Rwanda, Sierra Leone, Somalia, South Africa, Sudan, South Sudan, Tajikistan, Tanzania, Uganda, Yemen, Zambia and Zimbabwe

# 2. City contexts

## 2.1 Urbanisation and the challenge of small towns

Managing urban growth has become one of the most important challenges of the 21st century and is critical to the planning of sustainable cities. Between 2014 and 2050, the global population is expected to increase from 7.2 billion to 9.6 billion, and the urban population from 3.9 billion to 6.3 billion (Table 2.1). Over 90% of growth will take place in cities and towns of the global South.

This chapter discusses three framing contexts within which urban planning operates: urbanisation processes, urban governance and urban land.

### Urbanisation and patterns of urban growth

Overall, the proportion of the world's population living in cities is expected to rise from about 54% in 2014 to about 66% by 2050 and most of this growth will take place in less-developed regions (Table 2.1). In 1990 there were 10 mega-cities with a combined population of 153 million; by 2014 these had increased to 28 and their combined population nearly trebled to 453 million (UNDESA, 2014, p24)[2].

*Table 2.1:  Population estimates, projections (billions) and annual growth rates (%)*

(Derived from: UNDESA, 2014, pp20–24) © United Nations

|  | Urban population (billion) | | | Rural population (billion) | | | Proportion urban (%) | | | Annual av. change (%) |
|---|---|---|---|---|---|---|---|---|---|---|
|  | 1990 | 2014 | 2050 | 1990 | 2014 | 2050 | 1990 | 2014 | 2050 | 2010-15 |
| World | 2.29 | 3.88 | 6.34 | 3.04 | 3.36 | 3.21 | 43% | 54% | 66% | 0.9% |
| More developed regions | 0.83 | 0.98 | 1.11 | 0.32 | 0.27 | 0.19 | 72% | 78% | 85% | 0.3% |
| Less-developed regions | 1.45 | 2.90 | 5.23 | 2.72 | 3.09 | 3.02 | 35% | 48% | 63% | 1.2% |

There are considerable differences in the levels of urbanisation by region. Among countries in the global South, Latin America and the Caribbean have relatively high rates of urbanisation, where the focus will be on managing existing urban areas. However, Africa and Asia are still urbanising and face major challenges of urban growth (Table 2.2).

*Table 2.2: Percentage urban by region (Derived from: UNDESA, 2014, pp24–29) © United Nations*

|  | Percentage urban (%) | | | Annual av. change (%) |
|---|---|---|---|---|
|  | 1990 | 2014 | 2050 | 2010-2015 |
| Africa | 31 | **40** | **56** | 1.1 |
| Asia | 32 | **48** | **64** | 1.5 |
| Europe | 70 | 73 | 82 | 0.3 |
| Latin America and the Caribbean | 71 | **80** | **86** | 0.3 |
| North America | 75 | 81 | 87 | 0.2 |
| Oceania | 71 | 71 | 74 | 0.0 |

### Small towns

Much of the urban population growth will take place in small towns in developing regions (Figure 2.1), which face the twin challenge of rapid urbanisation and weak governance capacity. As their populations increase, problems of land supply, congestion, eco-system degradation and risk will emerge.

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[2] Urbanisation estimates are compiled every 2-3 years by UNDESA (UN Department of Economic and Social Affairs) from data provided by 231 countries. Data are estimated from two census points, converging to global trends. However, a key problem is that country definitions of 'urban' vary (UNDESA 2014).

Although trends in urbanisation can be predicted with some confidence, urbanisation research presents methodological challenges, particularly in fragile states (Cohen, 2006). First, there is no agreed definition of 'urban', which can be based on population, administrative boundaries or economic function.

Second, it is hard to agree the extent of an urban area due to scattered peri-urban develop-ment. Third, comparisons between countries are difficult (e.g. in China, statistics for the 1980s show a massive jump in the urban population, partly due to a change in definition) (Cohen, 2006). Fourth, population estimates rely on census data, at best collected every 10 years. Finally, new forms of settlement are emerging that are not easy to enumerate, for example trans-border towns (e.g. San Diego-Tijuana on the US/Mexican border).

*Figure 2.1: Total world urban population (m) by city size*
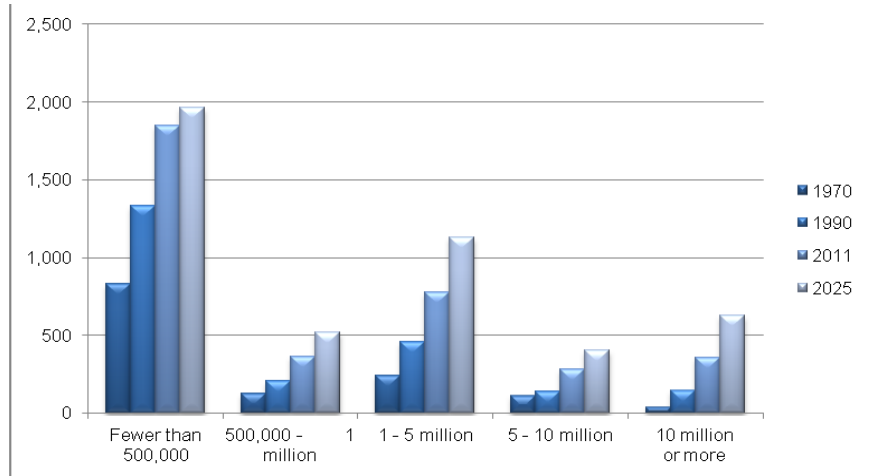
## Drivers and policy responses

*Urban growth* is caused by several factors, including natural population increase, international migration, rural-urban migration and boundary reclassification. In countries with low levels of urbanisation (the urban to total population ratio), the rate of urban growth tends to be higher than countries with medium and high levels of urbanisation, although drivers of urbanisation are very different in different regions.

The *rate of urbanisation* presents key challenges. In general, high urban growth rates are an indicator of economic success. For example, cities in Asia that experienced unprecedented growth in the 1970s and 1980s – Hong Kong, Shanghai and Seoul – are now among the top global trading centres (Cohen, 2006). In China, where urbanisation increased from 20% to 50% from 1980 to 2011, urban workers earn on average three times more than rural workers, their productivity boosted by government commitments to infrastructure spending (Turok and McGranahan, 2013).

However, in Africa, unlike Asia and Latin America, urbanisation seems to have been decoupled from economic growth, resulting from push factors such as drought, harvest failure or conflict, rather than pull factors of economic opportunity (Cohen, 2006). Africa's urban population is likely to increase from 295 million in 2000 to 748 million by 2025, more than doubling the size of Africa's cities in just 25 years, with the result that the development benefits of urbanisation may be outweighed by challenges such as overloaded infrastructure and water shortages (Turok and McGranahan, 2013).

The number of urban residents living in hazard-prone areas is also increasing. UNDESA's 2011 analysis of towns over 1 million suggests that over 890 million people lived at risk from at least one natural hazard, for example flooding (233 cities) or drought (132 cities) (UNDESA, 2011, p17). Particularly at risk are Tokyo (floods and cyclones), Delhi (floods/droughts), Cuidad México (floods/landslides), and Shanghai (floods).

Urban diagnostics in low-income countries are often weak, which affects the ability to prepare effective policy responses and planning solutions. There is an urgent need for reliable population projections, and data on intra-urban disparities, to allow city governments to address vulnerabilities, to plan effective land policies and infrastructure investment, and to act before sprawling poorly-served informal settlements emerge where residents are locked into poor quality environments.

## 2.2 History and legacy

*Economic, political and social history* have considerable impact on development agendas, affecting patterns of urbanisation, legal systems and the operation of local government. Colonial legacies influence modern urban planning and recent political histories affect government decision-making.

The history of colonisation still affects the legal, spatial, economic and political drivers of urban change, although many countries have been independent for 50 or 100 years. Often local economies reflect former colonial ties and national legislation usually carries the imprint of the colonial past. In Francophone Africa and Latin America legal systems are mostly based on Napoleonic codes (deriving from the French Civil Code of 1804–08), whereas in Anglophone countries English common law principles apply, although the adoption of international business practice is muting the distinctions.

In Latin America and the Caribbean, the larger economies of Brazil, Mexico, Colombia and Argentina saw rapid urbanisation in the 1950s–1970s and are now about 80% urbanised but in the smaller countries urbanisation is still below 50%. Asia's dramatic transformation has seen its urban population increase from 17% in 1950 (237 million people) to 45% in 2011 (1.9 billion people) driven by economic growth in China, India and the Asia tiger economies (S. Korea, Singapore, Hong Kong and Taiwan). Sub-Saharan Africa is the least urbanised region, but has high rates of urban growth. In the Middle East and North Africa (MENA), where Gulf economies have been transformed by oil since the 1970s, urbanisation is expected to reach 70% by 2050 (UNH, 2009b, p25).

Population structure has significant implications for urban planning. China, has an ageing population, and by 2050, 33% of the population is expected to be aged over 60. Other countries face a youth bulge, for example in 2015 the population aged 0-24 will be 47% in India, 54% in Pakistan and 63% in sub-Saharan Africa (UNDESA, 2012, Table 2.3). A large young workforce is a *demographic dividend*, but the challenge is for new job seekers to find work. In countries such as Botswana and Zimbabwe the HIV/AIDs epidemic has led to a decline in working populations (UNH, 2009b, p26).

Table 2.3: Proportion (%) of the population, [Derived from UNDESA, 2012 (medium fertility)]

| Region/Country | Year | 0-24 | 60+ |
|---|---|---|---|
| Sub-Saharan Africa | 2015 | 63 | 5 |
| Sub-Saharan Africa | 2050 | 52 | 8 |
| China | 2015 | 32 | 15 |
| China | 2050 | 25 | 33 |
| India | 2015 | 47 | 9 |
| India | 2050 | 33 | 18 |
| Pakistan | 2015 | 54 | 7 |
| Pakistan | 2050 | 36 | 15 |

Modern political history also leaves a legacy. In Africa, many countries gained independence during the 1960s. Several leaders created visions of African socialism, for example Julius Nyerere's *ujaama* (socialism with self-reliance) in Tanzania, which weakened local government and depleted capacity for urban management. Many African cities still have segregated enclaves, and once settler colonies are now neighbourhoods of the rich. Some regimes, such as that of Pinochet in Chile (1973–1989), embraced a free-market economy, which left a legacy of large-scale industrial development. History thus leaves a legacy that affects the legal, economic and spatial structures of cities, and is important in determining the context of current urban planning.

## 2.3 Urban governance

Governance is central to urban planning and determines the legal and administrative processes that underpin development, and the roles of formal and informal actors that shape urban change.

*National governments* establish the constitutional and legal framework within which governance takes place, *federal government* (where it exists) enacts national policy, and *local governments* usually implement urban planning policy and manage development. Three areas of state authority are particularly important in urban planning: a) the powers, operation and financing of local government; b) legislation relating to the ownership, occupation, use and transfer of land rights and c) the operation of the urban planning system; (a) and (b) are discussed briefly below and (c) in Chapter 4.

Many other areas of urban law and policy also impinge on urban planning, including infrastructure and highway regulations, housing policy and environmental regulation etc. Increasingly, the private sector also

plays a major role in urban development, both as the main investor in land and buildings, and through the privatisation of urban services such as transport, water supply and waste collection.

## Defining governance

The term 'governance' has been widely adopted in international development literature to describe the relationships between civil society, the state and private sector with many interpretations The UNDP defines governance as *'the system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sector* (UNDP, 2011b, p287). In contrast 'government' is more narrowly defined as '*the formal and institutional processes which operate at the level of the nation state to maintain public order and facilitate collective action'* (Stoker, 1998).

Many actors and institutions influence urban development outcomes. Broadly, these include: local, regional and national agencies of government; civil society, including non-governmental organisations (NGOs), community-based organisations (CBOs), social movements, trade unions, political parties, religious groups, and the private sector (Devas, 2004, p25). The distribution of powers between various actors is crucial to urban development (Figure 2.2).

*Figure 2.2: Actors and institutions of urban governance*

(Derived from: Devas, 2004, p27 and UNH, 2009b, p75)
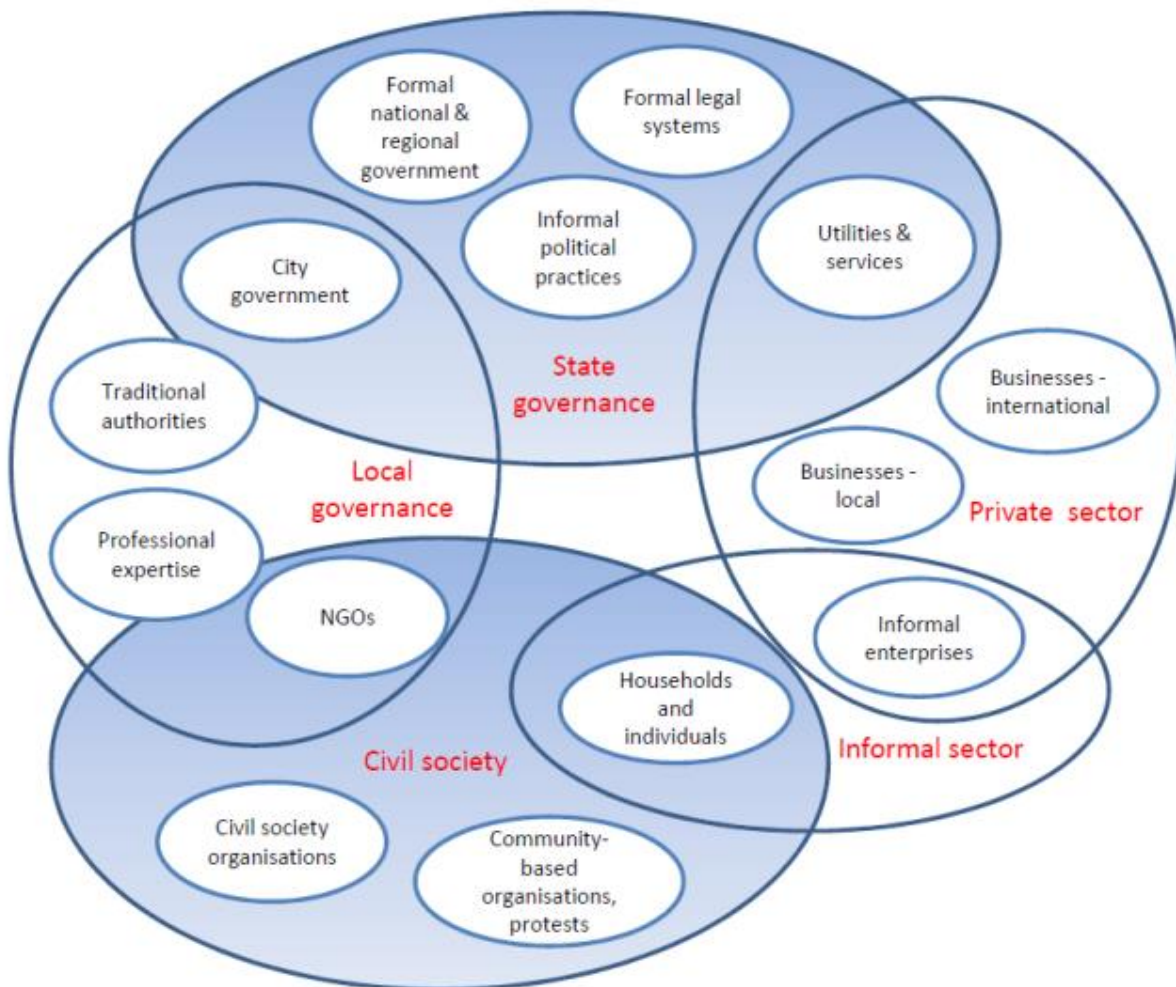
UNDP argues that three attributes are core to effective government capacity:

- *institutions* with the capacity to deliver public services and design and implement development;
- *adaptability* to changing needs or shifting priorities, and
- *stability* achieved through institutionalising good practices and norms (UNDP, 2011b, p271).

## Local government and urban planning

The operations of local government are important, but are increasingly subject to political struggles over resources. The capacity of local government officials varies depending on whether decision-makers are elected or appointed; whether chief officers are civil servants or local appointees; how local government is financed, and access to skills or technology. Competition between different tiers of government, centrally appointed mayors or chief executives, uncertain central-local financial transfers, weak local revenue-raising powers and poor staff capacity all limit the potential of local government.

The effectiveness of urban planning depends on the interplay of power between three key sectors of society – politicians, landowners/investors and civil society. UN-Habitat (2009, pp73–74) distinguishes *command-and-control* power wielded by those with access to finance or expertise from *enabling* power that mobilises diverse stakeholders through collective action. In societies where power is exercised through coercion, consensual processes are difficult.

Recent policy has promoted the decentralisation of powers to sub-national governments. Arguments *for decentralisation* are that: it is not possible to make effective decisions about service delivery centrally; local need is more likely to be met if decisions are made locally; and, in democracies, local people demand the right to influence local resource spending (Devas, 2004, p29). Arguments *against decentralisation* suggest that it leads to fragmentation of the nation state or results in uneven service delivery. Nevertheless, research suggests that, overall, bringing decision-making closer to beneficiaries creates new opportunities for participation and incremental gains for the poor (Devas, 2004, p31).

## Good governance

Since the late 1980s, the concept of 'good governance' through decentralisation and democratisation has been widely promoted and is considered essential to effective urban planning. UN-Habitat identifies seven characteristics of 'good governance':

- *sustainability:* balancing social, economic and environmental needs for present/future generations;
- *subsidiarity:* taking decisions at the lowest appropriate level of government;
- *equity or inclusiveness:* level of participation in decision-making and access to basic services;
- *efficiency:* in service delivery and promoting local economic development;
- *transparency and accountability:* of decisions;
- *civic engagement:* of citizens; and
- *security:* of individuals and their living environment (UNH, 2009b, p74).

DFID-funded research on governance and poverty in 10 cities concluded that 'bad governance' undermines the poor, in particular oppressive regulation of informal enterprises and settlements (Devas, 2004). The study suggested that the design of the city-level political system matters, including democratic structures and checks and balances between executive and legislature, and that periodic elections should be supplemented by broader participation to ensure that decisions reflect citizen's needs. It concluded that most city governments face severe capacity constraints, lack the vision to address urban growth, and need better information on poverty, environment and services. Ensuring access to land for housing and jobs, and providing basic services, are the most significant ways that local governments can support poverty reduction (Devas, 2004, pp194–198).

Many governance processes are opaque or informal and thus promoting effective and transparent local governance is essential to effective urban planning.

## 2.4 Urban land

Urban land has a crucial role in urban development and poverty reduction, strongly influenced by traditions of land ownership and government objectives. In free-market systems, access to land for urban development depends on functioning institutions that define property and development rights, and resolve land disputes. Markets operate by balancing demand and supply, but land is an unusual 'commodity' as supply is limited and so land values are often inflated by profit motives. Where state ownership is the norm, land access is usually dominated by state-led processes.

In contexts of rapid urbanisation, access to urban land is a crucial problem for the poor. In both private- and state-led systems the urban poor are often marginalised in development processes, and many access land through non-formal tenure arrangements, often by paying bribes to informal land agents or middlemen. Facilitating access to affordable land, particularly for housing, is one of the most important functions of urban planning systems.

There are widespread variations in land tenure and property rights. Payne (1996, pp5–7) identifies six main tenure types which confer 'bundles' of property rights, to use, develop, sell, inherit or transfer land.

- *Public land ownership or control* – virtually all societies recognise public ownership of land. At one extreme, the state may own all land and allocate rights of access, use, development or transfer (e.g. in much of Africa or China). Elsewhere, public control is accepted to protect public interests.

- *Private land tenure* – was originally embodied in English common law and the Napoleonic code. Private property rights have shaped W. European and N. American societies, although governments usually retain rights of 'eminent domain' to acquire land. Many different types of rights exist (e.g. *absolute rights* = freehold; *finite rights* = leasehold, rental or contract; *derived rights* = cooperatives, condominium rights, or strata title etc.).

- *Customary tenure* – entails traditional rights of use or disposal recognised by the community without legal status. Many versions exist, often as a form of land stewardship, both individual and collective. In some countries, for example Senegal and Tanzania, these rights are now codified in law.

- *Religious land holdings and rights* – there are many forms of religious land holdings. For instance, the Islamic traditions recognise four main land categories: *waqf* (religious land); *mulk* (individual ownership); *min* (state-owned with individual use rights); and *musha* (collective or customary land).

- *Imported tenure* – imported land rights often coexist with indigenous systems, for example where colonial land law established freehold title for settlers and 'occupancy permits' for local people. An emphasis on individual title undermines traditional or collective rights.

- *Contemporary non-formal urban tenures* – in some cities up to 75% of all households have informal tenure, for example in illegal settlements, subdivisions or construction. In many informal systems, written 'titles' signed by a respected elder have been commercialised by informal land agents. Despite the potential of collective tenure, most informal urban tenures adopt individual title.

*Land policy:* The effectiveness of *public land policy* depends largely on the capacity and integrity of administrative systems, which are often not well adapted to contexts of rapid urbanisation where state land may be informally occupied or traded (Payne, 2002). Few governments can afford to intervene directly in land markets to help the poor, so policies often concentrate on simplifying land registration or regularising informal tenure. Where land registration and transfers are legalised and reliably recorded, the impacts of policy intervention are relatively predictable, but where many transactions are informal and it is difficult both to assess policy impacts and to collect property tax.

### Land tenure regularisation

*Tenure regularisation* is widely promoted as a strategy to reduce poverty, but the issues are complex, compounded by the coexistence of formal/informal tenure land submarkets in most cities. The urban

poor often lack the resources to go to court to claim legal occupancy rights even when they have title. In theory, diverse tenures should increase opportunities for access to land, but overlapping or ambiguous rights may increase conflict, reduce equity and fail to achieve the revenue potential from property tax.

An influential advocate of tenure regularisation is the Peruvian economist, Hernando de Soto. His thesis is that formal property rights are crucial to effective functioning of markets and economic growth, and that lack of legal and transferrable property rights denies the poor access to credit and limits their potential to accumulate capital. He argues that informally owned land is 'dead capital' that cannot be mortgaged, preventing the poor from becoming capitalist entrepreneurs. In Peru, his consultancy advised on the regularisation of over 1 million plots between 1988 and 1995 (de Soto, 1989, p2000).

Critics of de Soto's approach have argued that the requirement for formal titles excludes those who cannot afford to pay for registration and discriminates against those without occupancy rights, and that the economic benefits of secure title have been overstated (Davis, 2006; Gilbert, 2001), and that Soto's simplified distinction between formal rights backed by national legislation and 'extra-legal' rights with individual title discriminates against those with collective tenure rights (Otto, 2009). Instead, various forms of intermediate tenure are preferable (GLTN, 2014).

*Customary or cooperative systems:* McAuslan (1998) argues that assimilation of informal or customary rights into (often imported) formal systems is rarely politically or socially successful, particularly in cities. However, some countries have sought to regularise customary land rights, and customary land rights are common for example in Pacific cities and towns.  In some cities cooperative laws allow shared land ownership, although these are not widely used.

Nevertheless, the consensus is that security of land tenure, with or without legal title, is vital to poverty reduction but that formal systems are often too expensive for the poor. Secure tenure, even for 5-10 years, is important for owner-occupiers as it provides an incentive to improve and maintain dwellings. Without security, housing conditions remain poor. Secure tenure does not need to be legalised; it can be perceived by the owner-occupier as resulting from government action such as installing services. A variety of intermediate tenure systems, such as residential licences, are now widely accepted[3] (GLTN, 2014).

## Urbanisation – implications for practice

Several key messages emerge from this analysis:
- Reliable population projections are essential to allow city governments to plan land policies and infrastructure investment, and avoid the emergence of sprawling informal settlements;
- Where urban agglomerations span administrative boundaries, there is a need to establish effective systems for cross-boundary collaboration;
- The political and colonial history of a country leaves a spatial, social and institutional legacy. Appreciating this legacy is important in development interventions;
- The local governance context, including the relationship between local, regional and national authorities, civil society and the private sector, is central to effective urban planning;
- Addressing the problem of poorly performing local authorities is probably one of the most important factors in supporting effective poverty reduction and urban planning; this means improving revenue collection, building capacity and more transparent decision-making;
- Access to urban land is a crucial problem for the urban poor many of whom land through non-formal tenure arrangements. Facilitating access to affordable land in accessible locations, particularly for housing, is thus one of the most important functions of the urban planning system;
- Making tenure more secure is important, but the urban poor often cannot afford formal land title. There is now growing experience in intermediate tenure solutions, for example residential licenses.

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[3] For further information see UN-Habitat's Global Land Tools Network

# 3. Informal cities

## 3.1 Defining urban informality

Rapid urban growth over the last 60 years has led to increasing *informality in* many facets of urban life, as governments lack capacity and legitimacy, and regulation fails to keep pace with dynamic urban change. Although urban activities have always taken place despite, rather than within formal frameworks, the scale of informality has grown and in many cities of the global South most housing, jobs and many services are provided outside the scope of urban regulation.

The term *informal sector* was first used by Keith Hart in his pioneering analysis of people in Ghana who worked in small-scale enterprises outside the formal labour market (1973) and the ILO (International Labour Organization) then adopted the term in a 1973 study of small-scale economic activities in Kenya (ILO, 1973). The term *informal economy* is now used to describe both enterprises and workers without legal or social protection. The concept of informality was soon extended to land and property, and the term *informal settlements* is now widely used.

In practice there are numerous, complex links between formal and informal development processes. Four schools of thought define the relationships between the two. *Dualists* see informality as separate and marginal to formal operations, a safety net for the poor that will become redundant as poverty declines through economic growth. *Structuralists* see urban informality as subordinate to formal activities, a way of minimising development costs and increasing competitiveness. *Legalists* see informal activities as a rational response to unattainable and unaffordable regulation (Carr and Chen, 2001). *Pluralists* argue that urban informality is an integral proves within neo-liberal market economies (Cross and Karides, 2007).

The term *informal* is now generally applied to activities that take place outside formal laws, bylaws or regulation, often described as socially acceptable activities taking place through non-compliant processes. *Formal state regulation* generally governs land use, property registration, urban planning, construction, taxation, public land acquisition and business operations. Many so-called 'informal' activities comply in part with state regulation, and contemporary analyses of urban development now see formal-informal relations as a continuum. Activists argue that the term 'informal' is pejorative and, in Latin America, the term 'autonomous' and in India 'unorganised' carries less stigma (UNH, 2009, p132).

This chapter explores two aspects of urban informality, informal settlements and the urban informal economy. The chapter has three sections covering: informal settlements; housing policy; and urban informal economies.

## 3.2 Informal settlements and housing

*Housing* is one of the largest land uses in cities and for many households is their most expensive asset. Most households aspire to own their own homes but for many poor and middle-income households the cost of access to secure shelter is unaffordable, and they have to create shelter or buy, rent or share accommodation, often in informal or unauthorised settlements. Large-scale land invasions, such as those experienced in Karachi after partition and in Lima in the 1970s, are now rare due to increasing land values, and most low-income urban housing now comes from illegal occupation, subdivision or building. Although low-income housing can occur anywhere in a city, it is often concentrated in older slum areas or newly emerging informal settlements.

*Informal land and property development* is generally a response to ineffective planning, inappropriate standards and unenforceable regulations (UNH, 2009b, p134). Planning regulations are often inherited from colonial powers and are ill-adapted to meet the requirements of informal settlements. Where the majority of urban development takes place outside the law, then the concept of 'planning control' and its underlying legislation needs revisiting.

## Informal settlements

There are many different types of *informal settlements (*e.g. shanties, *bidonvilles*, *favelas*, squatter settlements or slums) each a distinct response to prevailing political, social and economic contexts. Informal land and property development may occur in areas zoned for housing, on vacant government land, on the urban fringe, or on hazardous land liable to floods or landslips. A distinction is usually made between *informal occupation* and *informal subdivision* sanctioned by landowners. *Illegal building* includes the development of backyard shacks, the replacement of existing buildings, addition of extra storeys or rooftop development. *Illegal occupation* includes the occupation of previously-used buildings (e.g. former 'company housing'). It should be remembered that much informal development occurs in middle and upper class areas, and that not all occupants of informal settlements are poor.

Land in accessible urban locations is now scarce, and many low-income households have to pay a middle-man to buy, rent or share housing or to access land. A distinction is made between 'squatter owners' and 'squatter tenants', and in many informal settlements (e.g. Kibera in Nairobi) most occupants are tenants (Hendriks, 2010). Landlords are often the main source of capital investment in informal settlements.

*Tenure security* depends on who originally owned the land, who sanctioned the transfer to new occupiers, how long land has been occupied and government policy on tenure regularisation (UNH, 2009b, p133). Once land has been settled for a while, political clientalism and the provision of services may lead to *de facto* tenure security. Informal housing tenure shares many of the complexities of land tenure (see Section 2.4), and may give rights to to the living space but not always to the housing land. Lack of secure tenure means that households face the threat of eviction and often cannot access urban services, such as water and electricity, or bank loans. In India, the Mahila Housing SEWA Trust has worked with slum dwellers to decouple service provision from land tenure (Box 3.1).

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**Box 3.1 The work of Mahila Housing SEWA Trust (MHT) on securing services for slum communities**

The Mahila Housing SEWA Trust (MHT) mobilises slum communities to improve housing and living environments for poor women working in the informal economy and lobbies for community-led approaches to slum upgrading. Based in Ahmedabad, MHT was established in 1994 as an affiliate to the Self-Employed Women's Association (SEWA), a trade union of 1.1m women workers. MHT provides technical and legal assistance to slum communities and works with local governments to design and implement basic services.

MHT has pioneered an innovative approach to the provision of legal services. Many slum communities cannot get water and electricity supplies legally because they do not have property titles and so resort to illegal connections that result in leaking pipes or dangerous electricity supplies. MHT worked with the city corporation and electricity company to develop the *500 NOC* form, a 'no objection' certificate stating that the property can access legal services but not legal title; this has facilitated service delivery to over 100,000 households.

MHT is also campaigning for a simplified approach to obtaining tenure security, at present a legal minefield. Through a case study of Jadibanagar, a slum of 87 households in Ahmedabad, MHT demonstrated the complexity of obtaining legal title. Tracing records over 40 years when the land was first illegally 'sold' to squatters in a transaction which gave no legal rights, MHT pursued the legalisation process for two years, necessitating payments to the government and the original owner's heirs of nearly twice the land's current value. MHT is now lobbying central government for a more streamlined approach.                    Source: Author's research

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## Housing

*Housing* is one of the most important and expensive assets of urban households and there is growing recognition of the links between housing deprivation and poverty. Costs of housing are high because of cost of materials, the scarcity of serviced land, or restrictive planning and building regulations (Yap, 2010). Where 1-2 storey development is the norm, as in much of sub-Saharan Africa, low-income households can build incrementally, adding facilities as income allows but in larger cities where high-rise development is common this flexibility is not available. Another Topic Guide in this series covers *Provision and Improvement of Housing for the Poor* (Patel, 2013).

Housing has two facets. It provides *a service* in creating shelter and *an asset* that contributes to wealth (through increasing property values, or providing space for rent or home-working) (Yap, 2010). Governments often fail to understand the complexity of low-income housing and with a 'hidden agenda' to modernise cities and access scarce building land see slums as 'eyesores' to be removed. There are many cases of attempts to 're-plan' slums on centrally-located land, for example Dharavi in Mumbai, Kampung Baru in Kuala Lumpur, or the slums in Rio before the 2014 World Cup and 2016 Olympic Games.

Low-income households access housing in a number of ways. Most governments provide *public housing* for poor households but this typically meets only a fraction of housing need. Instead households have to find shelter through *private rental* (formal or informal), *informal purchase* or *self-help*. Eviction of urban households from informal housing is common, despite widespread evidence of the acute misery and poverty caused. The activism of NGOs and housing rights' coalitions has created a global campaign against evictions, for example by *Habitat International Coalition* (HIC) and *Shack/Slum Dwellers International* (SDI, 2014). Women are still disadvantaged in access to housing in many societies (see Section 5.2).

Many urban households lack access to *housing finance* for home occupancy or improvements. Although micro-finance is now well-established in many countries, housing micro-finance is less well-developed as it requires larger loans, more collateral and confidence that lenders can trace borrowers. Group lending and solidarity schemes become more difficult to operate as loans become larger. Many slum areas and informal settlements do not have an address system, making borrowers difficult to trace (UPU, 2014) and borrowers without a legal identity may be subject to unscrupulous lending practices.

*Rental housing* is rarely addressed in government policy because of a bias that home ownership is desirable and because of the rental sector is complex (Kumar, 1996). The communities in rental housing – often migrants or the very poor – may not be political priorities for city governments so tenants are rarely considered in government housing policies.

## Identifying slums

Low-income housing settlements are often described as *slums* but the term is loosely used to describe a wide range of settlements and/or informal housing, and has many local interpretations. The word 'slum' may refer to any housing in poor condition, including older formal housing that is ill-maintained or overcrowded, and urban informal or unplanned settlements.

The term 'slum' was first used in London in the 1820s to describe the poorest housing and later defined as housing unfit for human habitation so has negative connotations (UNH, 2003, p11). In many countries local terms lack pejorative connotations, and a variety of terms describe a complex range of settlement types, for example the French/African *bidonville,* or *habitat spontané,* Mexican *colonias populares,* Brazilian *favelas,* Indian *chawls or bustees,* Turkish *gecekondu* or Pakistani *katchi abadi* (UNH, 2003, p12).

Worldwide, it is estimated that 18% of all housing units (around 125 million units) are non-permanent structures, and 25% of all housing does not meet urban construction codes (175 million units) (Table 3.1). In reality, this figure is probably much higher (UNH, 2007). In some countries of sub-Saharan Africa over 75% of city populations live in slums, for example Chad (89%) or Ethiopia (76%) (UNH, 2013, pp148–149).

In practice, the word *slum* usually refers to older housing in accepted residential areas where buildings and services have deteriorated, for example tenement housing. *Informal settlement* refers to newer self-build housing on vacant or peri-urban land. However, Gilbert (2007) argues that resurrecting the term 'slum' will resuscitate many myths about the urban poor that years of research have discredited.

*Table 3.1: Proportion (%) of urban population living in slums (Source: UNH 2013: 151) © UN-Habitat*

| Major region or area | 1990 | 1995 | 2000 | 2005 | 2007 | 2010 | 2012 |
|---|---|---|---|---|---|---|---|
| Developing regions | 46.2 | 42.9 | 39.4 | 35.6 | 34.3 | 32.6 | 32.7 |
| Northern Africa | 34.4 | 28.3 | 20.3 | 13.4 | 13.4 | 13.3 | 13.3 |
| Sub-Saharan Africa | 70.0 | 67.6 | 65.0 | 63.0 | 62.4 | 61.7 | 61.7 |
| Latin America + Caribbean | 33.7 | 31.5 | 29.2 | 25.5 | 24.7 | 23.5 | 23.5 |
| Eastern Asia | 43.7 | 40.6 | 37.4 | 33.0 | 31.1 | 28.2 | 28.2 |
| Southern Asia | 57.2 | 51.6 | 45.8 | 40.0 | 38.0 | 35.0 | 35.0 |
| South-eastern Asia | 49.5 | 44.8 | 39.6 | 34.2 | 31.9 | 31.0 | 31.0 |
| Western Asia | 22.5 | 21.6 | 20.6 | 25.8 | 25.2 | 24.6 | 24.6 |

Giving the definitional difficulties, UN-Habitat now defines *thresholds* of indicators used to define slums (Table 3.2), and in 2002 agreed a definition of a *slum household* as a group of people living under the same roof which lacks one or more of the following:

1. *Durable housing* in a non-hazardous location, built of permanent materials that protect against extreme climate conditions;
2. *Sufficient living space,* which means not more than three people sharing the same room;
3. *Easy access to improved, safe water* in sufficient amounts at an affordable price;
4. *Access to adequate sanitation* in the form of a private or public toilet shared by a reasonable number of people, and
5. *Security of tenure* that provides effective protection against forced evictions (UNH, 2007, p19).

In some cities, the size of settlement or level of poverty may be important in defining slums. In India, the census definition of a slum is an area including least 300 poor people, or 60 poor households living in a settlement cluster (UNH, 2003, p11).

*Table 3.2: UN-Habitat thresholds for defining slum settlements (UNH, 2003, p12)*

| Characteristic | Indicator | Definition |
|---|---|---|
| Access to water | Inadequate drinking water supply | Less than 50% of households have an improved water supply, i.e. <br> - household connection <br> - access to public standpipe <br> - rainwater collection <br> providing at least 20 litres/head/day within an acceptable distance |
| Access to sanitation | Inadequate sanitation | Less than 50% of households have improved sanitation, i.e. <br> - public sewer or septic tank <br> - pour flush latrine or ventilated improved pit latrine <br> considered acceptable if shared by no more than two households |
| Structural quality of housing | Location | Proportion of households on or near a hazardous site, e.g.: <br> - geologically hazardous (landslide, earthquake, or flood-prone) <br> - on or near garbage mountains <br> - around areas of high industrial pollution <br> - around other high risk areas (e.g. railway, airports, power lines etc.) |
| | Permanency of structure | Proportion of households living in temporary or dilapidated structures e.g.: <br> - poor housing construction (poor materials for wall, floor or roof) <br> - compliance with building codes or bylaws |
| Overcrowding | Overcrowding | Proportion of households with more than two persons per room, or <br> - below a minimum floor area per person (e.g. 5 m$^2$) |
| Security of tenure | Security of tenure | - proportion of households with formal title deeds to land and dwelling <br> - proportion of households with formal title deeds to land OR dwelling <br> - proportion of households with enforceable tenure agreements |

## 3.3 Housing policy

A central role of urban planning is to deliver housing land to meet needs that result from urban population growth and the replacement of sub-standard dwellings. In fast-growing cities, the identification of new housing land is influenced by government policy and effectiveness but is rarely planned. Historically, housing has been seen as an *economic good* that should be provided by the market and governments have focused on economic development rather than social investment in housing. This approach rarely meets housing needs (Yap, 2010) and thinking on housing policy has evolved significantly in the last six decades, as outlined below.

## Evolution of housing policy

*1945-1973 Modernity and conventional housing:* Immediately after World War II, neo-liberal development approaches promoted by the World Bank and IMF focused on industrialisation and 'modernisation' of economies. In the 1950s and 1960s, rapid decolonisation, newly industrialising economies and the lifting of population controls led to a surge in urban growth, resulting in a critical shortage of housing and the first major state-led housing interventions (Frediani, 2006; Pugh, 2001; Harris and Godwin, 2007).

Many newly-independent states adopted 'modern' housing standards, aiming to build *conventional housing* with completed dwellings for low-income populations were often built by large employers, such as mining companies, or by governments, for their workforce. 'Modernity' reflected international architectural trends and traditional buildings were generally seen as backward (Stren, 1990 in Jenkins et al., 2007, p154). However, the numbers of units built were completely inadequate to meet demand. As a consequence, land invasions and squatting were the only housing options available to many new urban residents.

*1973-1984 Growth with equity and the self-help housing paradigm:* From 1973, the World Bank pursued a major programme to address problems of urban poverty (Cohen, 2001, p39). The concept of *self-help housing* gained prominence, partly due to John Turner, an English architect working in Peru who argued that squatter areas were not social aberrations but triumphs of social action and that it is *'what housing* does *for people that matters more than what it* is, *or how it* looks' (Turner, 1976, p97; Jenkins et al., 2007, p158), while Lloyd (1979) re-characterised squatter housing as 'slums of hope'.

Ramirez (1990) identifies three phases in the evolution of self-help housing approaches:

i. initially, *sites and services* provided support for land purchase and basic infrastructure but the amount of housing produced was again insufficient to affect housing need;

ii. by the late 1970s, emphasis shifted to *upgrading* existing slums through community participation, and

iii. by the 1990s the focus shifted to city-wide *upgrading programmes* with concern for housing and livelihoods.

Critics of the self-help approach argue that it absorbs housing into the market economy and that the costs of state intervention eventually limit access (Jenkins et al., 2007, p163).

*1986–1990s Market enablement:* In response to the 1980s debt crises in developing countries, the World Bank and IMF promoted market enablement, supported by structural adjustment programmes designed to cut government spending, remove subsidies and loosen import controls. Housing was seen as a market sector and slums a consequence of its inefficiencies (Frediani, 2006).

*Figure 3.1: Potential consequences of giving squatters title (Source: Author)*
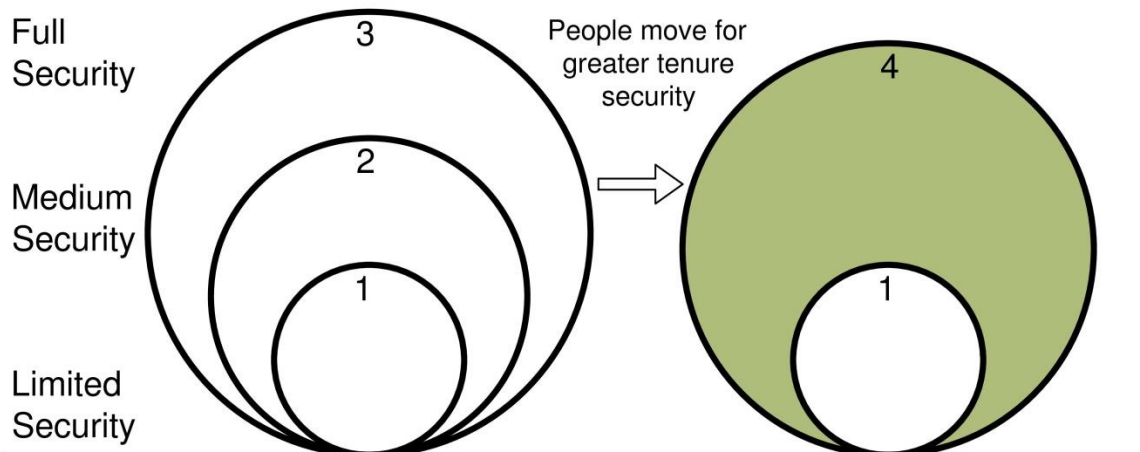
1. Limited Security: Squatter Tenant/Owner; 2. Medium security: Unauthorised Subdivision Tenant/Owner; 3. Legal Tenant/Owner; 4. Upgraded from Limited Security.

Tenure regularisation through granting title was an important component of this approach, but in many localities, beneficiaries simply sold the property to realise the gain in value (see the shaded circle in Figure 3.1). Payne (2001) has argued that a better approach is to give small increments across a range of tenure categories (e.g. across Tenures 1–3).

As evidence mounted that structural adjustment exacerbated poverty, the World Bank's 1993 report *Housing: Enabling Markets to Work* emphasised the importance of private-sector housing (Jenkins et al., 2007, p169). The United Nations Centre for Human Settlements (UNCHS later UN-Habitat) also promoted 'housing enablement' to expand private-sector provision of middle-income housing and release government resources for low-income housing. This approach helped to improve housing conditions for the middle class but was less effective in improving housing for the poor.

***Post-2000:*** Since 2000, housing has been seen within the wider paradigm of urban poverty reduction and the framework of the MDGs. The UN-Habitat report, *The Challenge of Slums,* noted that approaches to slums and informal settlements have largely shifted from eviction or neglect to more positive approaches such as enabling and rights-based approaches (UNH, 2003, ppxxvi–viii). The report suggests that: upgrading should address livelihoods and urban poverty as well as the traditional focus on housing and infrastructure; security of tenure is more important than home ownership; effective local governments are crucial for service delivery and upgrading; and tenant populations need specific policy priority, as renting is now the norm in many slums.

Worldwide, the proportion of slum residents in the developing world has dropped from 39% in 2000 to 33% in 2012 and more than 200 million people have benefited from improved water, sanitation and housing (UN, 2014b). However, slum growth is still occurring faster than improvements, and access to secure tenure often remains unresolved.

## 3.4 Informal economies

Informal economies are extremely important in most cities of the global South, both as a source of jobs and in contributing to urban economies. The informal economy embraces a panoply of activities from the *mama lishe* (cooked food vendors) of Dar es Salaam, to rickshaw drivers of Dhaka, or piece-work construction workers of Guangzhou. Informal activities are relationships outside the criminal economy but fall in a continuum between illegality and legal activities – a vast grey area of middle ground. The *products* may be legal, but the *processes* through which they are pursued may not be fully compliant with regulations, for example where businesses do not pay taxes or are not registered (Brown, 2006, p5).

Following research in the 1990s and 2000s, it is now widely recognised that the urban poor draw on a portfolio of assets to sustain their livelihoods (Moser, 1998; Rakodi, 2002). Both housing and livelihoods are often part of the informal urban economy and access to housing is important for income-generation to provide income from renting, home-working or storing goods. Secure housing also tends to support better health for its occupants, and enables kinship and other community networks to thrive.

In practice the informal economy is characterised by own-account employment (self-employment) and casual labour, as the formal sector may outsource production to the informal sector and employ workers informally (i.e. without the social benefits required by law).

The International Conference of Labour Statisticians (ICLS) uses three official statistical definitions: the *informal sector* is an enterprise-based definition referring to production and employment in unincorporated small or unregistered enterprises; *informal employment* refers to employment without legal and social protection, both inside and outside the informal sector. The *informal economy* incorporates all these elements – enterprises and workers and their outputs.  Informal employment is further defined (Chen, 2012) as comprising:

*Informal self-employment:*
- employers in informal enterprises
- own-account workers in informal enterprises
- contributing family workers (in informal and formal enterprises)
- members of informal producers' cooperatives (where these exist)

*Informal wage employment* (employees without social protection or as paid domestic workers)
- employees of informal enterprises
- casual or day labourers
- temporary or part-time workers
- paid domestic workers
- contract workers
- unregistered or undeclared workers
- industrial outworkers (homeworkers)

### The informal economy today

Mapping the informal economy, the numbers of people involved and their economic output, is difficult. Informal-economy workers often pursue activities that do not fit researchers' classifications and much economic activity goes unrecorded. The lack of regulation and constant change in the informal economy makes collecting accurate statistics very difficult, so there is a tendency to under-report and under-estimate (Chen et al., 2012). However, in many regions informal employment is increasing. In Africa, informal work accounts for perhaps 60% of urban employment and over 90% of new jobs. In Asia, informal work accounts for around 40-60% of urban employment (ILO, 2002).

National data suggests that more women than men usually work in informal employment. In a recent survey of 46 countries the ILO found that in the 30 countries where data was disaggregated by sex, women outnumbered men in informal employment (i.e. non-agricultural employment); in India, Mali, Bolivia, Honduras, Madagascar, Paraguay, Peru, Zambia, Uganda and El Salvador this includes more than 70% of all working women (ILO, 2012). Informal employment is also correlated with low income per capita and high poverty rates, which suggests that people in extreme poverty have to accept informal employment.

Data can sometimes be derived from labour-market surveys, but city-level labour-market estimates are rare. However, the French research institute Développement, Institutions et Analyses de Long Terme (DIAL) has constructed city-level estimates for eight African cities (Figure 3.2). In these cities, nearly 8 in every 10 people in work are in informal employment.

*Figure 3.2: Informal employment as a proportion (%) of non-agricultural employment in eight African cities (Source: Herrera et al., 2011, p15)*
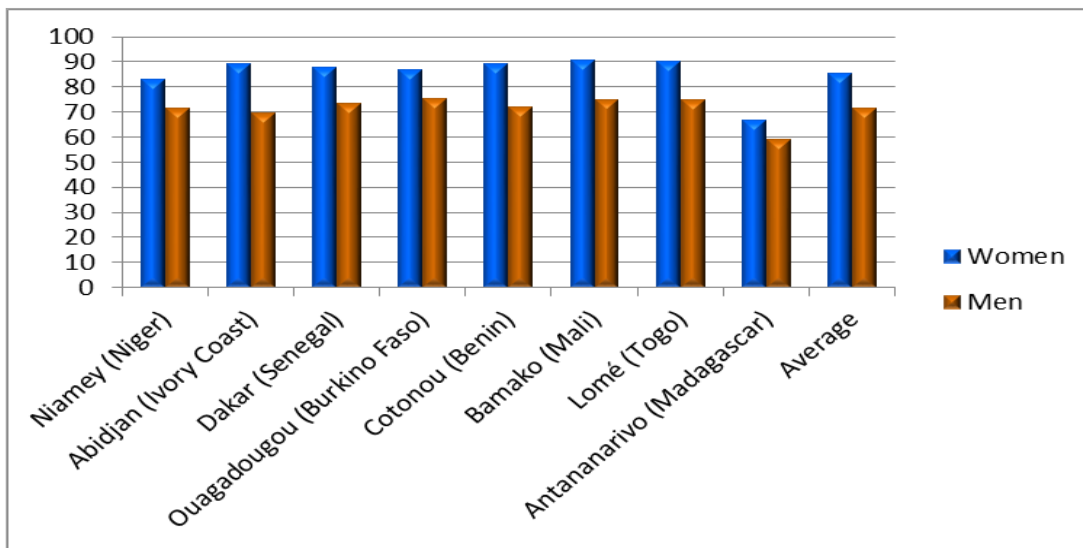


A substantial body of work now sees the informal economy as a source of growth and flexibility, a rational response to processes of globalisation and the increasing urbanisation of poverty (Cross and Karides, 2007; Potts, 2009; Brown, 2010). This view necessitates a global shift from a modernist economic paradigm where informal-sector enterprises were seen as survivalist, inefficient and parasitic, to a post-modern agenda in which the informal economy is seen as integral to economic development. For example, in 2001 some 5,000 to 8,000 traders at a Durban site reported a turnover of one billion Rand, just below that of the largest shopping centre in KwaZulu Natal (Nomico and Sanders, 2003).

It must thus be recognised that those working in the informal economy are not always poor and the relationship between poverty and informality is often assumed but not well understood. Average incomes for informal workers are generally, but not always, less than those of formal sector workers. When formal sector wages fall, workers often respond by taking up a second job, which is often informal (Chen, 2012).

The categorisation of the informal economy as marginal means that government policy is often hostile and in many cities street-clearances are common. Nevertheless, some governments have started to recognise the informal economy's potential. For example in southeast Asia, many local governments allocate space on footpaths to street vendors, close streets for night bazaars and oversee informal public transport (motorcycle taxis and minivans), seeing the low-cost goods and services these produce as important in reducing costs of urban living and retaining international competitiveness.

International agendas generally seek to formalise the informal economy. This is unrealistic and (as with informal tenure) it is more important to understand degrees of informality and aim for incremental increases in security in order to protect jobs, allow asset accumulation, and encourage improvements in

productivity and the quality of goods produced. The aim should be to reduce vulnerability rather than formalise *per se,* so that governments capture the benefits of local economic growth but avoid bureaucratic procedures that exclude the poorest. Surveys show that workers in the informal economy often make substantial payments to work and access space and goods, but most are not captured by the state. Increasing the proportion of payments to local government, and using the revenue to benefit informal economy workers, should be policy priorities. Urban planning can play an important role in improving conditions, outputs and incomes in the informal economy by allowing space for informal-sector activities, and modifying regulations and standards to accommodate this.

## Examples of informal economy sectors

*Street trade:* Street trade is one of the most visible and controversial components of the informal economy. To find custom, street traders often locate in busy downtown streets, where competition for space is acute and local authorities and business elites harass traders, castigating them as illegal or criminal. The distinction between market trade, fixed street trading and hawking is blurred and in practice, street trading is part of a continuum within the street economy.

In many parts of Africa, street trade is an important entry job for young job seekers, in India it is a traditional trade inherited through generations, while in China many street traders are migrants without an urban household registration *(hukou)*. Although street trade was once a traditional activity, many sub-sectors are now intricately linked to global systems of trade. Second-hand clothes exported from Europe, Australia or the USA are graded, sorted and resold throughout Africa, while Chinese imports permeate markets throughout sub-Saharan Africa and Latin American (Lyons et al., 2013).

By no means all street trading is informal and traders often pay a daily fee to local authority collectors or local 'strongmen' who control key trading sites. Local authority policy towards street traders ranges from benign neglect to violent eviction. Evictions can be a daily cat-and-mouse game with local police, or may be widespread clearances that destroy livelihoods, while urban 'beautification' projects often displace local economies. Local authority initiatives to accommodate street trade in off-street markets are rarely successful, such as the six-storey Machinga Complex in Dar es Salaam opened in 2011, which remains almost empty (Brown, 2006, 2010). In contrast, an enabling policy approach should be to work with street traders to resolve problems of congestion and support street-traders' livelihoods.

*Waste picking and recycling:* In response to environmental concerns of the 1980s, modernisation of solid waste systems included a new focus privatisation of services, and on waste reduction and recycling, often described as 'the three Rs' – *Reduce, Reuse and Recycle*. As developing countries shifted to consumerism, the nature of the waste stream has changed and with it emerged an informal economy of waste pickers and recyclers who collect and sort materials they can sell (Scheinberg, 2012). Sampson (2012) uses concept of value chains to link the formal and informal recycling economies, and to demonstrate the gendered nature of recycling value chains.

Recycling initiatives are largely industry-driven, depending on profitability and the position of national economies within international trade flows (Sampson, 2010). Global prices have a considerable impact on the price of scrap material, including paper, cans and cardboard collected by recyclers but most sectors saw a drop in prices after the 2008 global economic crisis (WIEGO, 2014).

One continuing concern is the extent to which privatisation of waste collection and disposal has excluded waste pickers. Activism has now shifted from an initial emphasis on governance, health and image problems to campaigns for including waste pickers in municipal waste systems, so that criteria for privatisation of waste collection services do not exclude existing micro-waste-picking enterprises. There are some excellent examples of success, particularly in Latin America where local authorities have contracted recycling cooperatives, securing jobs and improving working conditions. In Brazil, the government of Belo Horizonte helped start waste-picker collectives and gave them priority for the collection of recyclables.

## Informal cities – implications for practice

Informal urban development has now become the norm in many cities of the global South and understanding its complexities and dealing with challenges are core tasks for urban planners. Key issues are summarised below.

•   The term *informal* generally applies to activities that take place outside formal laws, bylaws or regulations, often described as socially acceptable activities taking place through illicit processes;

•   Housing is one of the largest land uses in cities, and is for many households their most expensive asset. However for many poor and middle-income households informal housing is the only accessible or affordable option;

•   Housing provides both *a service* in creating shelter, and *an asset* that contributes to wealth, but governments often fail to understand the complexity of low-income urban housing;

•   Most governments provide some form of *public housing* for poor households, but this typically meets only a fraction of housing need. Instead households have to find shelter through *private rental* (formal or informal), *informal purchase* or *self-help;*

•   Eviction of urban households from informal housing and settlements remains common, despite years of anti-eviction campaigns and widespread evidence of the acute misery and aggravation of poverty caused;

•   Approaches to slums and informal settlements have largely shifted from eviction or neglect to more positive approaches, such as enabling and rights-based policies (see Chapter 5);

•   The informal economy is now a core element of urban economies, both as a source of jobs, and in contributing to urban economic development and municipal revenue;

•   However, mapping the informal economy, both the numbers involved and their economic output, is difficult as workers do not fit statisticians' categories, and much economic activity goes unrecorded;

•   Where reliable evidence exists, data demonstrates that the number of informal economy workers is high – in some cities the informal economy employs up to 80% of the non-agricultural labour force, usually providing jobs for more women than men;

•   Government policy towards the informal economy should recognise its dynamism, job-creation potential and role in local economic development; providing a secure place to work with access to basic services, can significantly contribute to poverty reduction.

# 4. Spatial planning

## 4.1 Urban planning – evolution

Urban planning emerged as a spatially oriented discipline in the late 19th century in response to rapid urbanisation in Europe and North America, unsanitary housing for the burgeoning urban workforce, and air and water pollution. Its philosophies were embedded in 19th century philanthropy and utopian idealism, but its practice supported emerging urban land markets and the objectives of state control. In much of the global South, urban planning imported by colonial powers was largely ineffective in addressing realities on the ground.

Today, urban planning is largely government-led and its effectiveness depends on the capacity of local administrations, and acceptance by the majority of urban builders. Its main component, *spatial planning,* has two core functions, to shape *strategic growth* of human settlements through the allocation of land for urban development, and to provide the framework for day-to-day *development management*. Urban planning contributes to the broader discipline of *urban management* – which includes all the activities that provide, maintain and upgrade urban infrastructure and services. Urban planning has also developed as a core mechanism for delivering wider social and environmental goals (Chapters 5 and 6).

In countries with effective regulatory capacity, the majority of urban planning processes are formal, buthere governance and oversight are weak, much urban development takes place outside formal regulatory frameworks. Chapter 4 discusses spatial planning approaches normally applied in formal planning systems, and Chapter 5 examines the potential for intervention where informal development is the norm. In contexts of rapid development, the principles outlined in Chapter 4 are relevant but practice needs to be innovative and people-centred, as outlined in Chapters 5 and 6.

### The genesis of spatial planning

From the late 19th century, 'modernist planning' emerged as a technical and ideological discipline. Early planners were engineers and public health officials who aimed to improve sanitation and living conditions in 19th century cities of the USA and Europe. Urban planning promoted well-ordered cities through physical design, end-state plans and a driving vision of 'public good' (UNH, 2009b, p49).

Three *utopian ideals* have proved remarkably resilient in influencing urban planning principles. First was the romantic vision of the *landscaped city* exemplified in the 1868 plan for Chicago's Riverside suburb, and the UK's early 20th century 'garden cities', such as Letchworth and Welwyn Garden City. Second was the pioneering work of 19th century philanthropists in providing *social housing* for the needy, for example London's Peabody Trust and the Guinness Trust. Third was the *'modernism'* of Swiss/French architect, Le Corbusier who, from 1910, applied the ideals of industrial production to designing skyscraper cities. His vision of multi-storey living has influenced urban form from North America to Asia.

The early 20th century saw the global spread of planning principles, often with limited adaptation to context. Many countries embraced the new planning approach, for example Malaysia's 1923 *Town Planning Enactment* borrowed ideas from the UK and Australia. After World War II, the redrawing of national borders and need for reconstruction led to the introduction of comprehensive planning systems and an emphasis on master planning. In the UK, legislation nationalised the use of land and introduced strict planning controls, and the 1945 Abercrombie London plan was one of the first for a major conurbation. In Africa and Asia, newly-independent countries adopted colonial planning systems that were ill-equipped to deal with rapid urban growth and urban planning ideals were often subverted to political ends (Box 4.1).

From the 1970s onwards, environmental concerns, increasing car use and calls for public participation influenced the redesign of planning systems. The 'public good' elements of spatial planning, such as open space or road widths, were increasingly codified in planning standards. Urban planning also provided security for private investment in urban development, although many have criticised the resulting privatisation of space that excludes the poor (e.g. in gated communities) (Webster, 2002). Although

master planning is still used in socialist countries, in capitalist economies planning largely serves private-sector interests, for example 'gentrification' of inner city neighbourhoods often displaces poor communities.

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**Box 4.1 Urban planning in South Africa**

Mabin and Smit (1997) explore the history of planning in South Africa. Initially aiming to control black settlement and regulate subdivisions, urban planning was broadened during the 1930s depression to embrace the ideals of CIAM (*Congrès International d'Architecture Moderne*) and tackle problems of industrialisation and automobile use. After World War II, movements for reconstruction and racial separation gained force, while industrial growth funded the restructuring of cities, culminating the Group Areas Acts of 1950 and 1957 which embedded apartheid into city structures. Urban planning thus married the twin objectives of racial zoning and spatial planning. Other planning systems in sub-Saharan Africa also embedded racial segregation in urban planning (e.g. Zimbabwe).

Source: Mabin and Smit, 1997

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'Modernist planning' principles, including the end-state fixed plan, have proved remarkably resilient to change because of a lack of capacity to reform outdated planning systems, lack of traditions of citizen involvement and the unwillingness of elites to cede control over land (UNH, 2009b, pp57–58). Yet 'modernist planning' completely fails to address the dynamic urban change typical of many cities of the global South. Regulations are often based on developed-country norms and are unaffordable to the poor. Master plans present unattainable objectives, as they are not tied to budgets and reinforce spatial and social exclusion (UNH, 2009b, pp58–59). It is crucial to change perceptions that well-planned cities should be tidy.

## 4.2 Formal planning processes – issues and concepts

### Statutory and non-statutory systems

Important in formal spatial planning processes is the distinction between *statutory* and *non-statutory* interventions. Both can be legal processes, but statutory plans are those required in law, ranging in scale from national and regional spatial strategies to city-wide local and cadastral plans, for example:

- *National or regional spatial strategies* may lead development by identifying economic growth poles, strategic development corridors or major new infrastructure, for example ports or airports; an excellent example is Malaysia's National Physical Plan (Figure 4.1);
- *Metropolitan plans* may identify directions of urban growth, locations for new peri-urban housing and related infrastructure requirements. 'Structure plans' may be at metropolitan level or may cover a group of districts;
- *Neighbourhood or local plans* may, where cadastral mapping exists, identify permitted land uses, density or zoning (see further comments on zoning below).

*Statutory instruments* may specify stages in the plan preparation process, for example requirements for publicity, public participation, challenge and approval. In countries with well-developed mapping and enforcement systems, statutory planning has a significant influence on the resulting urban form, but statutory processes are often cumbersome and slow, and plans may be out-of-date before being finalised.

FIGURE 4.1 : 'CONCENTRATED DECENTRALISATION' DEVELOPMENT STRATEGY
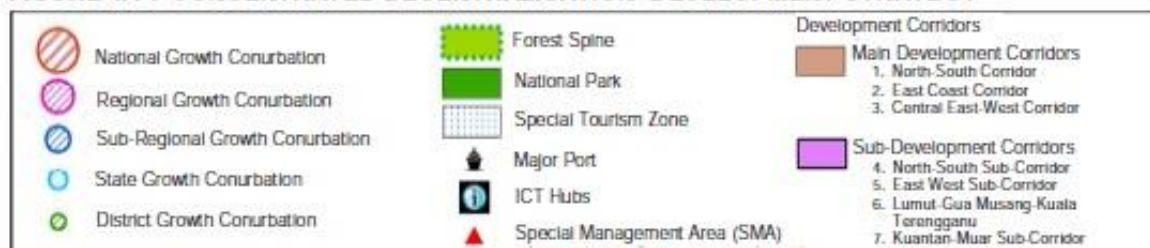
Source: National Physical Plan-2, 2010

Where governance capacity is limited, statutory systems are often ineffective at managing urban change – as Kyessi and Burra said of the Tanzanian planning system:

> *In terms of plan-making the system has been rather efficient. All urban settlements with populations above 30,000 have a general planning scheme (either a Master Plan or an Interim Land-Use Plan) … but most of these plans are rarely implemented or land-use change decisions followed up* (ISOCARP, 2008, p161).

*Non-statutory plans* are those permitted in legislation but not required, and are often more responsive and quicker to prepare than statutory plans. Non-statutory plans may express a shared or community-led vision for an area, promote integrated infrastructure investment or encourage private-sector development. They typically focus on specific areas or issues, for example the city centre, a slum-upgrading project, urban water catchments, shoreline protection, built heritage or tourism management. Where planning capacity is weak, the approach should be to confine statutory planning to core issues (e.g. the location of housing land), and focus on non-statutory problem-oriented planning.

*Assessing existing planning systems:* In considering city or country interventions, it is crucial to evaluate existing capacity and processes, noting the legal frameworks for planning, and processes and effectiveness of plan-making, development control, appeals and enforcement (e.g. ISOCARP (2008) which analyses planning systems in 101 (mostly developed) countries).

## Participation in planning

*Public participation* has been embedded in planning systems for several decades and is seen as central to good practice. Settlement planning is seen as a professional/technical exercise that involves responsiveness and accountability to those affected by planning interventions. Theories of public participation distinguish between *communicative planning,* which suggests that better decisions are reached through dialogue with affected communities, and *collaborative planning,* which implies joint decision-making (UNH, 2009b, p93). Various typologies of participation have attempted to distinguish between participation for 'show' and transformative processes (Table 4.1). A number of highly successful examples of participation exist, although these are often locally specific and rarely move from nominal to transformative approaches (Hamdi and Goethert, 1997) (Box 4.2).

*Table 4.1: Typology of participation in planning (Source: based on UNH, 2009b, p94) © UN-Habitat*

| Type of Participation | Purpose | Means and Significance |
|---|---|---|
| Nominal | Display, manipulation | Information giving or nominal representation, to legitimise government action |
| Consultative | Assembling useful information | Information collection via data collection and consultation, resulting in better-informed decisions, but with no guarantee of outcomes |
| Instrumental | Increases effectiveness and stretches external resources | Communities may contribute labour or finance. Provides a means of organising disparate views and gives communities greater leverage # |
| Representative | Gives people a formal say in decision-making | Direct influence in representative political system or through advisory bodies. Increases voice and aggregates disparate views |
| Transformative | Long-term goal | Formal 'contracts' between government and citizens, devolved control over budgets. Collaborative decision-making with civil society or NGOs |

\# There are good examples of community participation in DFID programmes in India and Bangladesh. In India, these practices have been scaled up to national schemes.

**Box 4.2 Participatory budgeting, Porto Alegre, and public finance in India**

Participatory budgeting in Porto Alegre (Brazil) originated as an experimental, consultative process driven by the city government and social movements in the late 1980s, whereby a proportion of the city's capital budget is determined through an annual consultative cycle. The process is now widely adopted in Brazil. A World Bank evaluation in 2008 found high levels of participation and a real shift in capital spending towards pro-poor projects, but with problems of monitoring outcomes. The process had mainly enabled citizens to influence capital investments, rather than creating space for wider public debate (WB, 2008).

In India, a major World Bank study promoted the concept of public financial management and accountability (PFMA) as a foundation for better urban governance. The 74th Constitutional Amendment in 1992 recognised Urban Local Bodies (ULBs) as an autonomous third tier of local government, and the Right to Information Act 2005 empowers Indian citizens to hold government answerable to the people for public spending. The PFMA methodology was developed with the Ministry of Urban Development and donor agencies, including DFID, to improve links between budgeting, implementation and reporting. The aim is to establish realistic, comprehensive and participatory budgets, which reflect ULB priorities, and to allow for independent spending oversight to increase accountability and participation (WB, 2007).

Sources: WB, 2008; WB, 2007.

## Statutory planning in underdeveloped administrations

In many cities of the global South, effective formal planning is impossible due to lack of up-to-date mapping; weak development control and enforcement powers; out-of-date planning processes; and little public knowledge or compliance with land-use regulation. Where government land-holding agencies and urban elites ignore planning controls (e.g. building villas on protected coastal strips) there is no incentive for others to comply. Moreover, globalisation, deregulation and free-market policies often shift decision-making powers on urban development to the private sector.

Most urban development is controlled in some way or other and, where government processes fail, control is undertaken by landowners, informal land agents or middle men. Although informal settlements may be referred to as 'unplanned development' there is usually considerable non-government control over access to land. Several problems arise from 'unplanned development'. For example, retrospective provision of infrastructure may be expensive to build and service; low-density layouts increase the cost of providing water, roads and sewerage. Most critically, the urban poor may pay high costs for informal access to land, and government administrations miss out on potential property revenue (see Chapter 5).

Where planning control is weak, governments should adopt action-planning approaches to address critical problems and demonstrate the value of intervention, for example protecting road alignments in peri-urban areas, protecting wetlands, preserving green space, or securing land tenure for marginalised populations, with a focus on problem-solving rather than plan-generation. A vital role for governments is to coordinate land development with trunk infrastructure for basic services and to ensure transparent decision-making in development approvals.

## 4.3 Strategic planning

Urban planning approaches fall into three categories: *strategic planning*; *development management*; and *thematic* or *action planning.* Each is discussed in a section below.

Strategic planning may take place at any scale. *National spatial plans* are intended to direct patterns of urban growth and infrastructure investment, but in practice national plans are relatively rare because of the difficulties of controlling urban growth. At municipal level, *city plans* may include *city-wide strategies* to identify major land-use needs, or *topic plans* that pursue specific themes, for example conservation of environment or heritage. Small-area medium-term *neighbourhood or local plans* are more effective in contexts of rapid change and can provide a shared vision that balances social, economic and environmental objectives.

Planning strategy is usually based on core goals, sometimes linked to national development objectives (e.g. MDG targets) or to five-year economic plans. These often relate to housing provision, slum

upgrading, protection of biodiversity, promotion of sustainable development, reducing fossil fuel emissions, or protecting built/natural heritage, etc. Common issues at different levels of planning are discussed below.

## Metropolitan planning

Metropolitan plans typically incorporate population projections for 10, 15 or 20 years, test spatial strategies for accommodating population growth and coordinate major infrastructure plans.

*Population projections:* Population projections should encompass all urban groups. Accurate predictions are difficult because of lack of up-to-date estimates, unknowns, for example the effect of new projects, and hidden populations such as migrants or tenants. The *cohort survival method* for demographic projection uses trend analysis of census data, birth rates, death rates and net migration to predict cohort survival (in 5-year age groups) into the next census period. For sub-national populations other methods may be better for example the *housing unit method,* which estimates the number of dwellings, average persons per household and projected change. Censuses are expensive and only provide projections every 10 years, so some countries now use rolling estimates from big data such as local authority, health or schools data.

*Spatial growth patterns:* Spatial strategies need to identify the broad directions of future urban growth and sensitive areas for protection (e.g. *natural areas:* forests, steep slopes, coastal zones, flood-prone areas or mangrove swamps, and *built areas:* heritage zones). Expansion strategies may propose compact high-density development, poly-nucleated development (i.e. with several district centres) or planned urban extensions. For urban extensions, infrastructure should precede housing, and new areas should include employment in order to avoid development of unserviced settlements or dormitory suburbs. Compact urban form that promotes transit-oriented development is important in reducing carbon emissions.

*Transport and land use:* Large cities need effective mass-transit systems, but these must be sensitively designed to minimise land take and the displacement of informal settlements or livelihoods. Following the success of bus rapid transit (BRT) in Curitiba (Box 6.3) and elsewhere (Bogota, Medellin), many cities have adopted BRT systems to provide relatively flexible mass transit at less cost than a metro. However, BRTs can exacerbate poverty through expensive fare pricing, routing that avoids low-income neighbourhoods, displacement of low-cost transport (e.g. minibuses) or disruption to livelihoods (e.g. vending on the transit corridor). Sensitive planning is needed to minimise displacements. New public transport routes can encourage urban growth when planning controls are weak, as good accessibility attracts development. Conversely, areas where development already exists generate travel demand.

*Green city planning:* The health and social benefits of urban greenspace are now widely recognised, and policy-protection for greenspace is a key strategy for protecting forests, shorelines and river frontages, and other areas often lost to elite developments. Under the banner of 'green environments', developers are proposing *eco-city* or *zero-carbon* schemes that minimise carbon emissions from transport or buildings and maximise urban biodiversity and quality of life (see Chapter 6). Many such innovations represent real progress in combatting climate change and other impacts of urban development, but care should be taken to ensure that such measures are not simply 'window dressing' by promoters to get development approval in sensitive areas.

## Neighbourhood or local planning

*Planning for districts and neighbourhoods:* At local level, detailed or cadastral plans can identify *potential development sites,* together with appropriate land uses and design requirements relating to built form, density, environmental protection or  planning gain necessitated by the development, for example off-site road improvement or school expansion. Other important factors may include protection of *built heritage* and *public space, town centre* improvements, or protection of *parks, waterways and local greenspace.*

*Green building codes* encourage the use of renewable materials and small-scale power generators, such as solar panels or micro wind turbines. *Sustainable urban drainage systems* (SUDs) seek to limit rainwater run-off to natural flows to counter impermeable surfaces and limit localised flooding.

## 4.4 Development management

Day-to-day control of development is known variously as *development management* or *development control*, through which *development permits* or *planning permissions* are granted. Several aspects of development, both new-builds and conversions, are commonly regulated including: the land-use activity (e.g. residential, commercial etc.), volume and height of buildings, number of dwellings (e.g. apartments), design, access and relation to surrounding properties. Some systems incorporate building control intended to ensure construction safety and fire prevention. Development control regulations often specify submission formats, map scales, supporting documentation and decision-making procedures.

Development control systems are predicated on several assumptions: that all development should have a permit; that developers will seek permission before building; that government administrations have the capacity to enforce the permit system, and that decisions will be transparent and fair. Even in developed countries, these assumptions do not always apply. In many cities of the global South larger development schemes may get formal planning approval, but most small-scale development takes place without approval or outside boundaries where urban control applies. Where capacity for development control is limited, the focus should be on managing developments with significant environmental or social impacts.

Influence and corruption are major problems in planning decisions. The grant of planning permission can add considerable value to a property, particularly for conversion of undeveloped to developed land. Decisions may be influenced by political pressure or under-the-counter payments. Influence affects all planning systems but can be minimised through transparent decision-making processes.

*Mapping:* A critical problem in both slums and areas of rapid growth (e.g. on urban fringes) is the lack of accurate mapping. Good quality mapping is expensive because it is produced from remote sensing and ground survey. Ahmedabad Municipal Corporation is using Google Earth photos with a cadastral overlay to give public access to planning information; these images are not rectified (checked through ground survey) but are an inexpensive way of providing public information. GIS mapping (a digital map with data overlay) is an extremely powerful planning tool, but only where authorities have the technical skills and computing capacity to keep systems up-to-date. ePlanning will continue to revolutionise the relationship between local authorities and citizens and widespread use of mobile phones is providing new horizons a) for citizens to access government information and b) for research.

*Environmental appraisal:* For major projects, environmental appraisal is generally a standard requirement of national governments, the World Bank and donors and most countries now have environmental appraisal legislation. *Environmental appraisal* examines the impacts of projects and *strategic environmental appraisal* considers the cumulative impacts of programmes or linked projects. Environmental appraisal is an essential tool for integrating environmental and social concerns into development projects, and requires multi-disciplinary inputs. The World Bank's *Environmental Assessment Sourcebook* is a useful reference (WB, 1999). Scoping is important to identify the topics for appraisal, which for urban projects may include: population, economy, transport, water supply, sewerage, land take, energy, community impacts, local governance capacity, social and cultural issues etc.

## 4.5 Action planning

Action or problem-oriented planning may address a wide range of issues and problems. Common topics include the protection of built heritage, small-area planning, upgrading or renewal, public space strategies, waterfront plans or other focused initiatives. Authoritarian planning tools such as master planning or zoning have proved inflexible in dealing with urban change, and have been replaced by innovations, such as planning agreements or tradable development rights, but establishing transparent rights and resolving conflicts over new instruments remains a challenge.

## Planning innovations

Many planning innovations are redefining the potential for urban intervention. Four important approaches are outlined below (UNH, 2009b, p60, the author):

- *Urban design and new spatial forms* adopts the principles of sustainable development to promote ideas of compact cities, mixed-use neighbourhoods, green cities and walkable, pedestrian-friendly environments (see Chapter 6). New development paradigms are important in allowing cities of the global South to bypass developed-country problems (e.g. car-dependent development);
- *Action planning* is a community-partnership approach to addressing critical urban problems, which then builds consensus for larger-scale urban change based on mutual engagement social enterprise and good governance (see Chapter 5);
- *Participatory planning* seeks to ensure that marginalised groups have a voice in urban planning, and to overcome resistance by professionals and politicians to learning from participatory processes (e.g. participatory budgeting in Porto Alegre, Brazil, and the Kerala People's Campaign for Decentralized Planning) (see Chapter 5);
- *Land regularisation and upgrading* recognises the positive role of informal settlements in providing accessible low-income housing. Aims include regularising land tenure, supporting *in situ* upgrading, coordinating public infrastructure investment, the capture of rising land values and working with informal economy actors.

## 4.6 Planning tools

This section introduces a number of common planning tools used for development management.

## Planning standards

*Planning standards* are often used as statutory requirements or non-statutory guidelines to influence development outcomes. Standards can secure public gain from development, such as landscaping or open space, but operate most effectively in well-resourced government agencies where decision-making is transparent and monitoring effective. Standards are sometimes divided into 'planning standards' covering district to cadastral (plot) level, and 'building control' covering building construction. For example, Hong Kong uses a comprehensive set of planning standards that has produced a distinctive urban form, largely as a result of the application of residential plot ratios (GoHK, 2014).

Planning standards can be used in two ways: a) as *minimum requirements* to which new development must conform, or b) as guidance on *acceptable principles* for development. It is easier to apply standards to new development than to existing areas and there is a danger that if standards are retrospectively applied they exacerbate illegality, particularly where informal subdivision or building is the norm.

Planning standards are less useful in contexts of widespread informality and have several disadvantages: for example by increasing development costs and making housing unaffordable, or stifling innovative design. Rigid application of road widths can limit the 'place-making' potential of variable road reservations (i.e. creating focal points along the street through widening or narrowing distances between buildings).

*Common planning standards* include:
- housing density = number of units per hectare
- floor area ratio (FAR) = site area to built floor space ratio (= plot ratio = floor space index (FSI))
- building set-backs from the plot boundary
- height (either number of storeys or total building height e.g. ground floor to eaves)
- distance between buildings
- road reservations (total land in public ownership = carriageway, sidewalks + utility reserves)
- public open space (play space, pitches, local parks etc., based on population or distance criteria)
- protection zones (e.g. along water courses or coastal zones, around electricity sub-stations)
- hazardous development (cordons around hazardous development, e.g. waste incineration)
- drainage and flood retention ponds.

*Density:* Density standards have an indelible influence on urban form and cannot easily be changed once built. High-rise development can increase housing density on small plots but other designs can also produce high densities (e.g. medium-rise perimeter blocks). High-rise development has long-term drawbacks, including high energy and operating costs, poor street environments, localised ground-level wind effects and future problems of rebuilding or retrofitting. In some cities new to high-rise development (e.g. low-income areas of Nairobi) poor urban environments result. High densities also make it difficult to preserve green space, which is key to creating good quality urban areas.

*Zoning versus criteria-based land-use planning:* Many planning systems, for example the USA use *land-use zoning* to segregate incompatible land uses such as residential, commercial or industrial activities. Zoning is usually operated by local governments and zoning ordinances may specify densities, height or building codes. In practice zoning is often used to protect the interests of urban elites. Studies of USA metropolitan suburbs found that those with restrictive zoning were more income-segregated than those with more permissive regimes (Rothwell and Massey, 2010). Zoning is easy to conceptualise but does not reflect urban complexities and may prohibit potentially acceptable uses (e.g. nursery schools in residential areas). Zoning is, however, useful in protecting sensitive or hazardous areas such shorelines or river banks.

*Criteria-based planning* is more flexible than zoning, but more complex to operate as it requires judgements as to whether the criteria have been met. Examples of criteria against which development may be assessed include the land uses proposed, the volume of development, design or its traffic impact.

## Planning techniques

*Transferrable development rights (TDR):* TDRs allow for the transfer of unused development rights from one plot to another, under specified conditions, for example to protect historic buildings or open space (see Figure 4.2).

*Figure 4.2: Transferrable development rights*
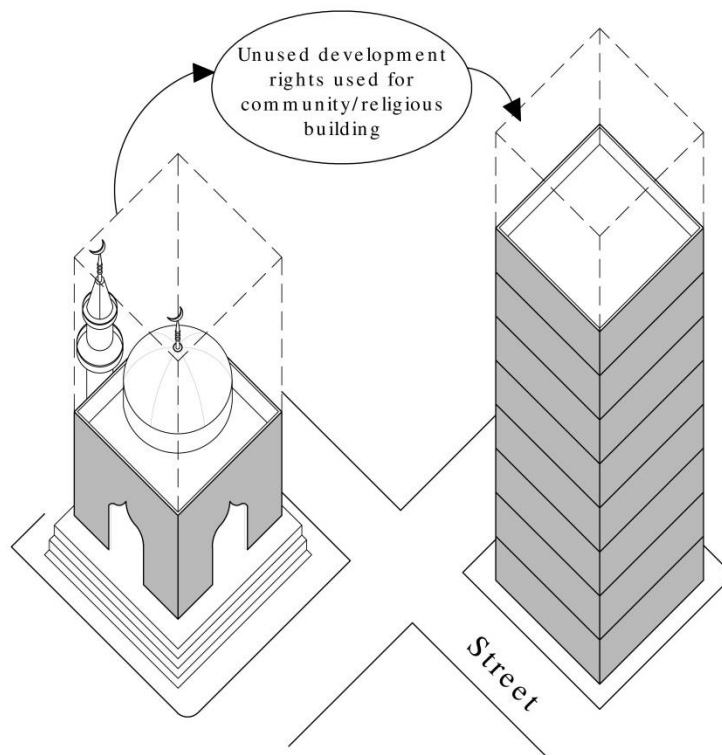
In a variation of TDR, a developer who provides a community benefit is granted an increase in FAR (floor area ratio). This approach has been successfully used in Hong Kong to provide pocket parks on the site of a new development, and in Curitiba to promote high-density development along the rapid-bus axes. Aerial photos clearly show tall buildings on the Curitiba's transport axes where increased FAR is allowed.

In Mumbai, slum dwellers have successfully negotiated TDRs to finance community-led slum upgrading. Community developers must rehouse slum dwellers and are given a FAR incentive to encourage investment in slum upgrading. If the *replacement + incentive floor space* is greater than the permitted floor area, the developer may sell the surplus to another developer, provided that it is used north of the city centre, to avoid further congestion in the city centre (Barra, 2003).

*Land pooling and land readjustment:* Pressures for development on the urban fringe often result in gradual and unauthorised conversion of farming land for housing. The resulting urban layout often makes inefficient use of land, lacks adequate roads or open space, and makes post-installation of services impossible or expensive. The concept of land pooling or land readjustment has been used for at least 200 years, particularly in Japan, S. Korea and India, to coordinate sporadic urban development.

Often initiated by local or national government, the aim is to combine small land holdings into larger parcels, map the development parcels and the main infrastructure, and amend the land-use category to urban development. Landowners receive back a slightly smaller plot, while a proportion is retained by the state to provide roads, schools or open space. *Land pooling* refers to the re-planning of the whole site; *land readjustment* refers to the adjustment of existing plot boundaries. Under both systems owners receive a smaller plot, but their land gains value from urban zoning and new road access. Some of the retained land may be sold to commercial developers with the proceeds used to help fund infrastructure.

*Rights of appeal:* In many countries, there is a *right of appeal* to an independent party against the refusal of planning permission. Statutory appeals ensure some checks and balances against biased or poorly justified decisions, but only work when an independent judicial process can be assured. Non-statutory appeals use a respected professional, judge, or senior independent planner to advise on development.

## 4.7 Emerging challenges and responses

*Planning mega-cities:* In 2011, developing countries contained 21 of the world's 28 mega-cities (population of 10 million+): *Latin America (4),* Mexico City, São Paolo, Buenos Aires and Rio de Janeiro; *Asia (13),* Delhi, Shanghai, Mumbai, Beijing, Dhaka, Karachi, Kolkata, Chongqing, Manila, Guangzhou, Tianjin, Shenzhen and Jakarta; *Middle East (2),* Istanbul and Cairo; and *Africa (2)* Lagos and Kinshasa (UNDESA, 2014, p26). By 2025, the number of mega-cities will reach 40. Urbanisation is also taking place beyond city boundaries to create mega-urban regions, for example around Beijing, Shanghai and Jakarta, and adjacent cities are joining to create urban conglomerations, as in China's Pearl River Delta, or India's Mumbai-Pune corridor.

Mega-cities create particular urban planning and management challenges. In most mega-cities there are at least two tiers of government, a metropolitan or state government and district or municipal governments. However, the built urban area often spans administrative boundaries, making cross-boundary working essential. Coordination of strategies is important, including *vertical coordination* between tiers of government (e.g. metropolitan-district) especially where competences overlap, and *horizontal coordination* between administrations at the same level. Critical problems occur when resources do not match development pressures, for example the city centre may have higher property rates, but urban development pressures are in outlying districts. Decentralisation can make coordination more difficult.

Some functions – particularly transport, environmental protection, solid waste disposal and trunk sewer or water provision – are best undertaken at city-wide level but problems occur when policy-setting departments are divorced from budget-setting and revenue-raising agencies. Functions which require regular monitoring are best undertaken by lower tiers of government, for example collection of property revenue, development management or solid waste collection. Problems can occur when different tiers of

government have different political affiliations and financial leverage; strengthening technical capacity and devolving revenue collection to the lowest appropriate level can reduce conflicts.

*Financing urban development:* Municipal governments need a *financing system* for public goods in appropriate quality and quantity at an affordable cost so that cities run effectively. There are significant differences in the amount of municipal finance *per capita* between the developed world and the global South. For example, in 2007, local government expenditure was 13.7% of gross domestic product (GDP) in China but only 0.06% of GDP in Kenya (UNH, 2009a); powers and responsibilities also differ significantly.

Municipal governments obtain finance from a range of sources (Figure 4.3). Central government transfers are often the most significant, based on formulae that cover recurrent and capital spending, but transfers can be erratic. Locally-generated revenue falls into three broad categories: *property taxes, business taxes* and *user fees*.

Figure 4.3: Financing instruments (UNH 2009a: 18) © UN-Habitat

| Private | Public | Redistributive | Spillovers |
|---------|--------|----------------|------------|
| Water Sewage Garbage Transit | Police Fire Local Parks Street lights | Social assistance Social housing | Roads Transit Culture |
| User fees | Property tax | Income tax | Transfers |

Property taxes have significant revenue-raising potential but are often under-used due to lack of up-do-date address registers, lack of mapping, limited staffing or political opposition.

Central governments often decentralise responsibilities for service provision and development to local government without appropriate revenue support. In some cases, this has been accompanied by municipal finance decentralisation, forcing local governments to fund an increasing number of local services. Major infrastructure investment may require loans for significant capital expenditure. Although most borrowing has been by central government, some larger cities are now accessing private capital.

*Public-private partnerships (PPPs):* Many municipalities have used the private sector to deliver and fund public services through *public-private partnerships* (PPPs). PPPs can take a wide range of forms, varying from management and operating contracts through build-operate-transfer (BOT) projects to joint ventures where part of the asset is divested. PPPs allow municipalities to build additional facilities without incurring capital costs and can improve revenue collection. The disadvantages are that if contractual arrangements break down the municipality is still responsible for the service[4]. PPPs need to be sensitively designed in order to protect the jobs of informal service providers, for example waste-picker groups.

*Transport development:* An efficient transport system is crucial to the functioning of modern cities. The main transport modes within emerging cities include: walking, cycling, public transit (metro, bus, rapid bus, collective/informal transport etc.), private transport (motorcycle and car) and freight transport. Cities in low-income countries face major transport problems including: a limited or inadequate paved road network, poor traffic management, poor use of existing road space and high accident rates. In low-income cities a high proportion of trips are non-motorised – usually walking or cycling – which are rarely considered in transport policy.

In many cities, the mainstay of public transport is *collective transport,* including minibuses (e.g. *dalada* in Dar es Salaam or *matatu* in Nairobi), shared taxis (e.g. *trotro* in Accra), or motorcycle taxis (e.g. *okada* in Lagos, *boda-boda* in Kigali or *ojek* in Jakarta). Transport authorities often see collective transport as the main contributor to traffic congestion, and governments seek to ban or control it, but its operation and maintenance often provides a large number of urban jobs (Cevero, 2000, p41).

Governments often envisage fixed metro or light rapid transit (LRT) as the best way to modernise public transport but these are expensive to build, and where construction costs are high and revenue is low governments have to make up the shortfall. Many cities have experimented with bus rapid transit (BRT) as a flexible and cheap alternative. Although bus lanes are easier and less expensive to construct in cities

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[4] Information on PPPs is available from the World Bank's PPP in Infrastructure Resource Center (WB 2014a) and the multi-donor facility PPIAF (Public-private Infrastructure Advisory Facility) (PPIAF 2014).  The Private Infrastructure Development Group (PIDG) (DFID and World Bank) also supports private infrastructure investment (UK Government 2014).

with wide roads (Cevero, 2013), BRT development can have the same displacement effects as other infrastructure projects.

*Major development:* A key role for strategic planning is determining the location and scale of major development (e.g. new or expanded airports, ports, industrial sites, pipelines and transport corridors), urban renewal or redevelopment, land reclamation and new suburbs or settlements. Since the 1980s many mega-projects have been linked to visions of urban competitiveness and entrepreneurialism, such as major tourist facilities; redevelopment of industrial or port areas; high-tech industrial developments such as Malaysia's Cyber-Jaya; new satellite cities such as Konza Techno City outside Nairobi; and Eko Atlantic outside Lagos. Such developments may not be not accessible to the urban poor and infrastructure can have a major displacement effect.

*Mega-sporting events:* Another facet of urban entrepreneurialism is the competition for mega-sporting events, for example the Olympic Games or the FIFA World Cup. The paradox is that cities increasingly compete to host mega-sporting events, despite evidence they do not generate significant economic benefits for the host city or region. Mega-events may reach a global audience, support city marketing and foster planning innovations, but may have disadvantages such as escalating costs and overstated economic benefits (Duminy and Luckett, 2012). There is now extensive work on the displacement effects of mega-events, through eviction of low-income communities and slum clearances, and displacement of informal economy workers. There are also concerns that mega-event investment diverts social spending, for example on health or education (Duminy and Luckett, 2012).

## *Spatial planning - implications for practice*

Effective urban planning depends on locally appropriate solutions, integrated approaches to development challenges and combining physical interventions with strengthening governance capacity.

- Urban planning emerged from 19th century utopian idealism, but its practice has sometimes supported urban land markets and the objectives of state control to the exclusion of the poor;
- Today, urban planning is a largely government-led process and it effectiveness depends on the capacity of local administrations, and acceptance of the system by the majority of urban builders. The potential of urban planning is considerable, although its practice is often exclusionary;
- In many cities of the global South, statutory planning is ineffective due to limited capacity and little public acceptance of land-use planning regulation. Where formal processes fail, most urban development is informally controlled with the result that the urban poor pay disproportionate costs for land access and governments miss out on potential property revenue;
- Urban planning by government authorities has a vital role in enabling transparent development decisions and pro-poor service provision. Where planning control is weak, governments should intervene selectively, through problem-oriented planning that respects informal processes;
- Participation of communities in development agendas is essential to give poor communities a voice. However, transformative development processes depend on collaborative decision-making. Successful examples of collaborative practice exist, for example participatory budgeting in Porto Alegre;
- *Planning strategy* is often based on fundamental goals or national development objectives. Metropolitan plans may identify directions for urban growth, locations for new housing development and major infrastructure requirements and local plans may identify potential development sites and protected areas;
- *Development regulation* is often predicated on assumptions that all development should have a permit, and that decisions will be transparent and incorrupt. These assumptions are unrealistic when most urban building is informal, and there development control should focus on priority areas (e.g. to identify housing land or ensure environmental protection);
- *Action planning* has led to a number of planning innovations that are redefining the potential for urban intervention. These include: urban design and new spatial forms; participatory planning; and land regularisation and upgrading;

- Planning for mega-cities poses particular challenges of vertical and horizontal policy coordination. Strategy should focus on key metropolitan functions, such as the provision of transport infrastructure, solid waste disposal, and trunk sewage and water provision;

- Municipal governments need a system for financing public goods in appropriate quality and quantity at an affordable cost, so that cities run effectively. The main sources of revenue are property tax, business tax, user fees and central-local transfers;

- Where major infrastructure is planned, capital can be raised through *public-private partnerships* (PPPs), but these should protect jobs for informal-sector service providers (e.g. waste pickers);

- Major infrastructure development and mega-sporting events are important in promoting city image and are seen as a component in promoting economic development. The poverty impacts of such development need greater consideration.

# 5. Inclusion in cities

## 5.1 Equity and inclusion in cities

This chapter examines how the paradigm of *inclusion* is used to address poverty and to complement the conventional approaches to urban planning discussed in Chapter 4. The term *inclusive cities* generally refers to the inclusion of marginalised communities in urban processes – slum dwellers, migrants, minority groups, women or young people – albeit with differences of approach. The name is found in several flagship programmes – in ADB's slum rehabilitation programme (ADB, 2011), in the Commonwealth Local Government Forum's 'good governance' network (2014) and as a global advocacy network for informal economy workers (IC, 2014).

To explore the paradigm, this chapter first examines causes of social exclusion, including poverty, gender and ethnicity, and the problems of fragile cities, before considering how participatory, rights-based and community-led urban planning are addressing problems.

## 5.2 Dimensions of inclusion/exclusion

Cities have always been places of diversity and using the concept of *inclusion* to frame the fight against poverty and exclusion is a key dimension of urban planning. Exclusion is related to power imposed by a dominant group over others, and the term 'social exclusion' is widely used in urban planning literature to reflect the unequal consequences of urban development (Fainstein, 2010).

Low income is an important component of exclusion, but is often combined with other factors, such as gender, ethnicity or disability. Certain groups are more likely to be excluded than others – women, the elderly, disabled people, young people or ethnic minorities. For example, there is now growing evidence of a *feminisation of poverty,* reflecting the high proportion women among the world's urban poor (Chant, 2008). Globally, young people face high levels of unemployment (Beall et al., 2013).

Exclusion is also spatially defined, as living in a poor area limits education and job opportunities (Byrne, 1999). Graham and Marvin (2002) argue that urban life is splintering societies in profoundly undemocratic and non-egalitarian ways. Spatial segregation can be economically, politically or socially imposed. Migration exaggerates spatial clustering as new arrivals often move into the same locality. The gentrification of older neighbourhoods can drive out the urban poor (Byrne, 1999).

### Urban poverty

Urban poverty is major determinant of exclusion, and one of the major urban challenges of the 21st century. Globally there have been significant gains in reducing poverty. The headline figures are impressive. UN figures suggest that Target 1A[5] in the Millennium Development Goals (MDGs), to halve the proportion of people living in extreme poverty between 1990 and 2015, was met five years ahead of schedule. Gains are largely driven by impressive development in China. Yet figures suggest that in 2010, 1.2 billion people, around one in eight of the world's population, still lived in extreme poverty, more than 100 million children under five were undernourished, and numbers of people displaced by conflict or persecution was at its highest for 18 years, totalling 45.2 million (UN, 2014b).

Defining poverty is relatively simple. It is generally accepted that all urban dwellers needs adequate access to food, clean water, secure shelter, health care and schooling, and a level of income by which to access these needs. Measuring poverty is much more complex: poverty lines are sometimes based on income levels and sometimes on consumption estimates, and usually include an *absolute poverty line* calculated from household surveys to establish the income needed for 'food energy intake' or the 'cost of

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[5] Millennium Development Goals, Target 1A, '*Halve between 1990 and 2015 the proportion of people whose income is less than $1 a day'.* The poverty line in 2000 was estimated at $1 a day, now increased to $1.25 a day.

basic needs'; the *relative poverty line* is defined in relation to average consumption levels of a country (Mitlin and Satterthwaite, 2013, p15; WB, 2014a).

The multi-dimensional nature of poverty is now widely understood, and it is recognised that poor people draw on a range of assets to survive, including social and kinship networks, but many basic needs are difficult to measure such as political and civil rights, or social support mechanisms (Moser, 1998; Rakodi, 2002, Box 4.1). Mitlin and Satterthwaite (2013, pp279–280) argue that broadening the definition and measurement of poverty would fundamentally change the basis for action, and that urban programmes and plans should shift perceptions to consider poor people as 'citizens' with rights, rather than 'objects'.

## Housing poverty

Inadequate housing, including insecure, hazardous or overcrowded housing, is a major factor contributing to poverty, and although the 'right to adequate housing' is enshrined in international human rights law it is far from being met (OHCHR and UNH, 2009, p14). Housing poverty can be influenced by the location, the structure and the tenure of a dwelling. Housing provides shelter, but is also an important asset for income-earning, including renting space and home-based work.

The costs associated with urban housing need to be better understood. For example, the lack of a permanent structure may lead to poor health and lost income. Poor families may have to repay loans for purchasing land or building materials, and may also pay for electricity, water, toilets or waste collection services provided by the informal sector. Specific groups are particularly disadvantaged by lack of adequate housing. Women may face cultural or legal barriers to owning property or inheriting housing from their spouse. Urban migrants are particularly vulnerable, often relying on social networks to find shelter. Ethnic or religious groups may also face housing discrimination. In some communities, elderly people, child-headed or HIV/AIDS-affected households have limited access to housing.

Protection against forced evictions is a key element in housing rights, and important for urban planning. Since the mid-1970s many NGOs and social movements have been highly effective in highlighting the devastating effect of forced evictions, for example Habitat International Coalition (HIC-HLRN 2005), and SDI (Shack/Slum Dwellers International) – a network of urban poor CBOs in 33 countries in the global South (SDI, 2014).

## Gender – women and girls
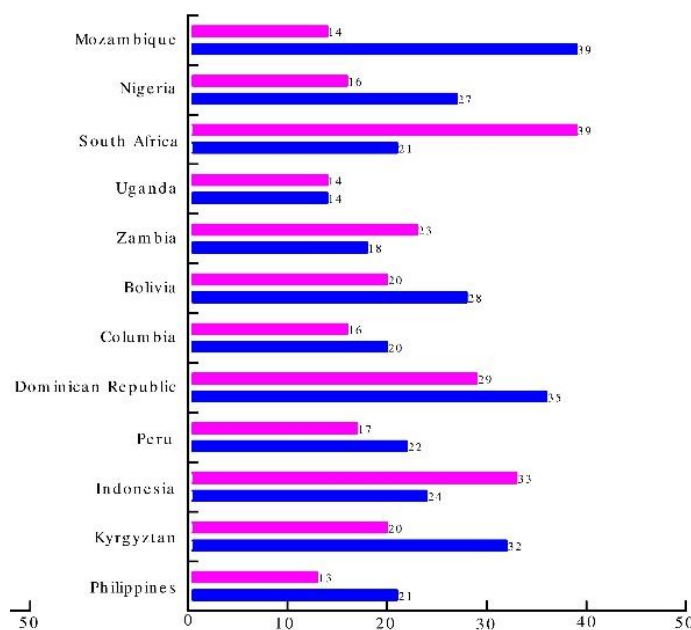


*Figure 5.1: Female school drop-out due to pregnancy and early marriage, slum and non-slum population (Source UNH, 2013a, p47) © UN-Habitat*

Women make up a substantial majority of the world's poor and, increasingly, the majority of the urban population, particularly in Latin America and the Caribbean. In addition, a high proportion of female-headed households live in poorer areas. Within low-income communities, women and children are more likely to be poor and malnourished and less likely to receive health services, clean water or sanitation than men. Women often have poorer education, are paid less than men for similar work, and are frequently restricted to informal, low-productivity and unregulated work.

The term *feminisation of poverty* is now widely used and recent trends have exacerbated the marginalisation of urban women. First is the growth of female-headed households (FHH) (Chant, 2008; Moghadam, 2005). In a study of 18 Latin

American countries from the 1990s to 2009, Chant (2013) found that the proportion of FHHs had increased from 3% to 16%, due to family breakdown, widowhood, lifestyle decisions and greater acceptability of working women and single mothers. FHHs often have the double burden of labour and childcare (Medeiros and Costa, 2008; Chant and Datu, 2011; Tacoli, 2012).

Second is the problem of inequalities within households, and the deprivation of women/girls, that results in the unequal allocation of resources for food, schooling, marriage etc. (Figure 5.1). For example, women may not have rights to own or inherit land or property. Finally, empirical studies suggest that women disproportionately experience the effect of neo-liberal policies and structural adjustment, through paying fees for health care and schooling, or experiencing higher rates of employment discrimination than men (Moghadam, 2005, Stavropoulou and Jones, 2013). Understanding the gender implications of interventions is thus central to promoting inclusion in urban planning.

## Ethnicity and multiculturalism

Ethnicity is a factor in exclusion and ethnic minorities, both established communities and new migrants, often face discrimination in accessing urban housing and services. In some cities, *international migration* is increasingly important − approximately 215 million people live outside their country of origin, including about 13 million refugees (IOM, 2013). Migrants are from many backgrounds, and include highly skilled migrants with banking or technology skills and economic migrants in low-skilled and low-paid work.

Migrants often contribute much of the low-paid labour in cities, doing all the 'difficult, dirty or dangerous' jobs that make cities function, and poor migrants are among the most vulnerable groups in cities. Yet migrants make significant contributions both to families at home, and to their host cities, taking jobs which the local workforce is unwilling to accept, and usually their contribution to GDP is greater than their demographic share (Balbo, 2009). Migrants tend to congregate in successful international cities, but often work in undeclared jobs with limited access to employment protection, health care or housing (Box 5.1).

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**Box 5.1 Cross-border migration in southern Africa**

Cross-border migration has been common in SADC countries for many years, dating from at least 150 years ago when labour migrants worked in the Kimberley diamond mines. Sending countries include Mozambique, Malawi and Lesotho, and receiving countries South Africa and Namibia. Botswana and Swaziland fall into both categories. The 2001 census in South Africa found 345,000 registered non-national Africans in the country, although other estimates put the number at between 500,000–800,000 in the large cities. In South Africa, xenophobic attacks on migrants are common. Public space becomes dangerous and people may only feel safe at work. Their precarious state has been likened to that under an apartheid regime. Many migrants do not settle but work in cross-border trade, perhaps travelling weekly from cities such as Maputo. The presence of international migrants is very visible in some areas.                                                                 Source: Ostanel (2010)

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Modern cities host multi-ethnic and multi-lingual communities who leave spatial, social and economic imprints on their environment. Diversity can provide a rich patina of vitality as multicultural cities celebrate the faiths and practices of a global community, but has implications for urban planning, for example in the demand for sites for specialised markets, new religious buildings or burial sites. In London's central borough of Westminster, more than 120 languages are spoken in primary schools, and the Notting Hill carnival, with its West Indian roots, is one of the largest street festivals in the world. Urban planning in cities with large migrant communities is complex due to conflicting demands of different constituencies.

## Spatial exclusion

Exclusion is often represented spatially in cities. Urban space is important for urban migrants, who often congregate in 'ethnic quarters' which provide specialist services, for example for remittances, but also intensify exclusion (Balbo, 2009). The term *divided cities* can be applied to most modern cities as a framework for understanding the political, social and multicultural logic of partition, why it occurs and its consequences. Although divisions within cities are longstanding, the form of city restructuring found today is relatively new. Marcuse (2003) identifies several emerging types of enclaves: the gentrified city;

the suburban city; the tenement rental city; and the forgotten city of the poor. What is new, he argues, is the rapidity of displacement and expansion, governments' role in promoting private developments, and international influences on urban space (Marcuse and van Kempen, 2002; Marcuse, 1993).

Some cities face extreme partition. Spatial exclusion can be the result of political strife or civil war, leading to zones within cities defended by armed militias. Jerusalem's Green Line existed from 1948–1967; Belfast has been divided into Protestant and Catholic zones since 1969; Beirut's Green Line operated from 1974–1990; Mostar has had two autonomous sectors since 1993; and Nicosia has been divided between the Republic of Cyprus and Turkish Republic of Northern Cyprus since 1963 (Calame and Charlesworth, 2012). In Karachi, political parties are organised along ethnic and sectarian lines supported by the city's Urdu speakers, Sindhis, Baloch, Pashtuns or Barelvi Sunnis who pursue neighbourhood wars, as in the sprawling area of Lyari, housing 1 million people (The Economist, 2012). In Kingston, Jamaica, Clarke (2006) shows how ghetto politics of race and class resulted in the creation of garrison communities; but from 1980 onwards, drug money displaced political influence and since the 2010 arrest of a major drugs baron, rivals have been jostling for power (Davis, 2014). Koonings and Kruijt (2007) argue that the drivers of exclusion include the failure of the (local) state, police and judiciary, and their replacement by armed groups.

In such contexts, urban planning can sometimes ameliorate spatial divides, but usually only in the context of strong political support. Local governments have to work with communities to achieve small, tangible gain, for example in service improvements, to re-establish stability.

## 5.3 Rights-based urban planning approaches

Addressing acute deprivation requires innovative urban planning and rights-based approaches to development that empower urban communities to direct and manage their own space.

*Rights-based approaches* promise radical solutions to complex issues of poverty, marginalisation and exclusion, with the potential to challenge the existing distribution of economic, political and social power, and the prevailing neo-liberal economic paradigm. These approaches have significant appeal, but raise major questions, such as what rights they cover and how rights can be delivered. Watts and Fitzpatrick (2013) examine how international human rights instruments influence the national sphere to create *programmatic rights* that inform policy but are not enforceable (eg: some constitutional rights), and *legal rights* to services such as housing or education, which are relatively rare because of the complexities of delivery of those rights.

In Latin America, particularly Brazil, rights-based agendas have underpinned several bold experiments in participatory governance, and the *right to the city* is proving a powerful paradigm in reframing urban planning legislation. The idea of the right to the city is linked to the work of French sociologist and philosopher, Henri Lefebvre (Brown, 2013). Lefebvre's 1968 publication, *Le droit à la ville* became a *cause célèbre*, and he argued that the *use value* of cities as centres of cultural, political or social life is being eroded by the commodification of urban property, creating *exchange value* which excludes many people from the benefits of urban life. Instead, Lefebvre proposed the right to the city as a radical tenet that:

> ....*manifests itself as a superior form of rights: right to freedom...to habit and to inhabit…the right to the* **oeuvre**, *to* **participation** *and* **appropriation** *(clearly distinct from the right to property)* (Lefebvre, 1968 in Kofman and Lebas, 1996, p174).

As a critical urban theory, the right to the city is a collective right that may embrace, but is not defined by, individual rights such as the right to shelter (Marcuse, 2009). However, its strong appeal has become a rallying cry for social movements and, as David Harvey suggests, the right to the city emerges as:

> '*far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city'* (Harvey, 2003; 2008).

The *right to the city* reframes the nature of citizenship, suggesting that citizenship is held by all who inhabit the city irrespective of national citizenship (Brown, 2013). Parnell and Pieterse (2010) identify four tiers of citizens' rights: individual rights to freedom and voting; collective rights to basic services e.g.

shelter and water; city-scale entitlements such as safety and social amenities, and freedom from human-induced threats of economic volatility or climate change; only the first two they argue are widely applied.

From an urban planning perspective, the right to the city provides a paradigm that challenges the role of neo-liberal and free-market policies that support profit-oriented urban development, and contests the nature of private property and the expropriation of urban public space by urban elites for market-led urban development. Instead planning is reframed to recognise the social function of urban property, giving legitimate claim to the land needs of the urban poor.

Led by experience in Brazil, the right to the city is revolutionising approaches to urban planning. Following extensive lobbying, Brazil's 1988 constitution included a right to the city, leading eventually to the ground breaking *2001 City Statute,* which enshrined the social function of property in legislation and set up a new Ministry of Cities (Box 5.2). Several other countries in Latin America have adopted similar rights in national constitutions (Ecuador, and Colombia), or in City Charters (Chile and Mexico City), providing a legal or policy basis for participatory urban planning (Brown, 2013).

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**Box 5.2 The *Right to the City* in Brazil**

In Brazil, a confluence of radical idealism and social action resulted in a movement to redefine urban rights that has persisted for over 30 years. In 1988, under the new civilian regime and as a result of lobbying from civil society organisations, the new federal constitution included two sections on urban issues (Articles 182 and 183). After 1988, the National Urban Reform Forum (FNRU) was set up and campaigned for 12 years for implementation of the articles. The right to housing was recognised as a fundamental right in the 2000 Constitution, and Law 10.257/2001, the *City Statute,* was passed in 2001.

The Statute explicitly recognises the *right to the city* as a collective right. It redefines the concept of land ownership, establishing a new legal paradigm, the *social function of property* (i.e. need for land for low-income communities); promotes democratic participation in urban management and legal instruments to regularise informal settlements; and empowers municipalities in urban planning (Fernandes, 2007). A national charter to implement the *City Statute* was approved in 2002. FNRU fought for the promulgation of the National System of Social Interest Housing law, passed in 2005. Two demands have been met, the creation of a Ministry of Cities, and establishment of a National Council of Cities.

While many problems of implementation remain, Fernandes (2007) argues that the existence of a legal instrument supporting the right to the city is fundamental to its success.                    Source: Brown 2013

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## Planning for informal cities

Informal urban systems provide dynamic and flexible solutions in modern cities, and have become the main way in which most of the urban poor in cities of the global South access housing and employment, As highlighted in Chapter 3, the informal processes through which low-income residents claim shelter and construct livelihoods are complex and interdependent, and rely on social capital and rapid adaptation.

To date, urban planners have found informal urban processes difficult to analyse, as they are not easy to enumerate, map or control. Planning as a discipline has suffered from neo-liberal economic ideology and elite capture, serving the interests of profit-oriented development rather than the needs of low-income communities. Despite the potential of urban planning for strategic and mediated development, in too many instances planners have failed to protect the housing and livelihoods of the poor. Fundamental change is required if urban planning is to counter the dominance of market-oriented development.

At the core of the new approach should be a commitment to community-led development and the avoidance of eviction or relocation of homes or jobs, unless exceptional circumstances put lives at risk (e.g. due to flooding or landslips). International and local urban policy often promotes formalisation of tenure and employment, but this approach fails to recognise the factors which discourage formalisation, such as prohibitive regulations, or the cost of land-title or business registration. If, instead, the priority shifts to reducing vulnerability, a more nuanced policy approach can be achieved.

Policies for informal settlements should respect informal land rights and encourage working with communities to upgrade services. There are many examples of inspiring public space improvements in slums which have encouraged 'owners' to improve surrounding property, for example in Kibera, Nairobi's

largest slum (KDI, 2014). For urban space occupied by street traders, waste pickers or other informal economy workers, negotiated solutions can often be achieved. As experience in Brazil has shown, the dangers of waste picking can be reduced when city governments open contracts for private waste collection services to low-income groups or cooperatives.

Thus, in addition to land-use regulation and mapping, urban planners have to play a new role, leading negotiations between conflicting groups to create partnership-based designs and inclusive spatial arrangements for urban land that meet the needs of modern urban populations. This requires imagination, flexibility and a social-justice approach.

## 5.4 Slum upgrading

Approaches to slum upgrading stem from rights-based, participatory campaigns that challenge the eviction of poor urban dwellers and seek to build consensus among communities around alternative development paradigms. Slum upgrading is often most effective as a part of a wider development strategy that combines a number of elements: physical improvements to water, sanitation, drainage and electricity; addressing problems of insecure tenure[6]; improving schools, health and providing for youth; advancing gender equity; and supporting livelihoods (Box 5.3).

Improvements to housing may be achieved through a combination of measures, such as constructing public or social housing, targeted housing allowances, or rebuilding by property owners emboldened by increasing confidence in the area. Housing finance is important for slum upgrading and can be provided through the mortgage market or government guaranteed funds.

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**Box 5.3 Core components of slum upgrading**

Core components of a slum-upgrading project may include:
i)      establishing a representative community-led organisation as a liaison body throughout the upgrading;
ii)     community-led enumerations to establish who has recognised rights to live in the area;
iii)    provision of trunk infrastructure to the edge of the slum and an allowance for local connections;
iv)     participatory processes to establish appropriate cost recovery for basic service provision (e.g. drinking water, drainage, sewage disposal, waste disposal and electricity);
v)      planning and installation of basic services, taking account of their livelihoods potential;
vi)     review of building codes for new or improved buildings, and exemption for existing buildings;
vii)    a focus on women's access to land and property;
viii)   land regularisation: establishing legal land ownership, securing collective rights for the continued existence of the slum or informal settlement, establishing appropriate intermediate tenure for individual households (e.g. residential licenses); and setting up a process to resolve land disputes;
ix)     establishing the form for any new-build property development, including public sector supported housing and private-sector low-income housing, e.g. number of storeys, size and internal facilities;
x)      exploring options for incremental housing, e.g. construction of garage-like structures which can be augmented at a later date;
xi)     developing community-run services, e.g. nursery and infant schools, youth facilities etc.

Source: The Author

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[6] For innovations in land tenure see UN-Habitat's *Global Land Tools Network* site (GLTN) with publications on issues such as: land mediation; designing land records for the poor, sustaining land information; innovative land and property taxation (UNH 2014a).

A strong element of slum upgrading is the emphasis on participatory processes, involving residents in designing solutions, exploring innovative funding mechanisms and developing self-help solutions. This process is often led by urban planners to coordinate infrastructure delivery. Sri Lanka's *Million Houses Programme* adopted an innovative participatory approach that built homes for at least 300,000 households during the 1980s (Box 5.4). Another renowned example is Rio de Janeiro's *Favela-Bairro* programme, noted for the multi-sector and wide-ranging approaches taken by the city government to reduce spatial and social exclusion (Box 5.5).

Participatory practice in slum upgrading is still developing. UN-Habitat's *Participatory Slum Upgrading Programme* was launched in 2008, and works at regional policy level to address slum-upgrading challenges. The programme spans 34 countries and 150 cities in the African, Caribbean and Pacific Group of States (ACP) and is implemented through a partnership between the European Union and the ACP (UNH, 2014b). Although not updated, the Cities Alliance (2001) has extensive resources on policy approaches to urban upgrading.

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**Box 5.4 Sri Lanka's *Million Houses Programme***

Sri Lanka's *Million Houses Programme* is a well-documented example of participatory approaches to low-income housing, initiated by the Urban Housing Division of the National Housing Development Authority (NHDA) and implemented through the Community Action Planning approach (CAP). The programme was at its height from 1978-1991, and generated many innovations to support low-income communities in improving their living conditions.

The programme started in 1978-1983 with the *Hundred Thousand Houses Programme* aimed conventional housing production. The target was to build 36,000 of units in urban areas, 85% of which were for low-income families, but targets were not met. The *Million Houses Programme* was them launched in 1983 aimed at reaching one million households and supporting self-help housing improvements. Municipal governments implemented the programme, and all settlements involved had to go through a process of community organisation to set up a Community Development Council (CDC).

The CAP approach sees people as the main resource for development, rather than objects of development. The aim was to mobilise low-income communities to lead upgrading, starting with a two-day workshop involving leaders in the CDCs and NHDA staff, followed by issue-specific workshops. Land tenure was a key problem and where land was not in government ownership, the NHDA introduced a form of lease purchase for land regularisation. Households were offered loans for upgrading and basic services were provided through community construction contracts, which improved the quality of construction. Urban livelihoods were supported through improved access to credit for micro-enterprises, and the establishment of women's cooperatives for savings and borrowing. The outcomes of such a dispersed programme were difficult to track but around 260,000 rural households and 46,000 urban households accessed upgrading loans. Community workshops were held in at least 136 settlements between 1986 and 1991.

Source: UNCHS (1993)

**Box 5.5 Rio de Janeiro's *Favela-Bairro* programme**

Rio de Janeiro's *favelas* are world-renowned. The 2010 census showed that 22% of the city's residents live in informal settlements (CCLA, 2013). The majority of the *favelas* lack adequate sanitation or building standards, leading to water pollution, soil degradation, methane emissions from waste, and other social, health and safety issues. The *favelas* have various forms of social organisation but as drug-crime has increased the level of cohesion has declined (de Sherbinin et al., 2007).

*Favela-Bairro* (slum to neighbourhood) was an urban planning initiative started by Rio de Janeiro's city government in the 1990s. The aim was to reduce social exclusion and to improve basic infrastructure, health and education. Phase 1 was a US$600 million programme from 1994–2000 in 119 *favelas*. Phase 2 followed, and by 2007, 81% of households in participating *favelas* were connected to piped water compared to an average of 56% in other *favelas*. Formal land ownership increased by 3%, and house values rose by up to 44% compared to communities outside the project (IADB, 2011).

Although the service upgrading was successful, both phases of *Favela-Bairro* have been criticised for limited input from communities (De Souza, 2005). School attendance increased, but job training targets were missed and credit facilities for local entrepreneurs were not delivered (IADB, 2010; Soares, 2010). Despite the priority on *in situ* improvements, over 2,000 people were displaced to Morar Feliz, over 60 km from downtown Rio de Janeiro (COHRE, 2003).

*Morar Carioca* of 2010, the third phase of *Favela-Bairro*, aims to achieve full scale upgrading of all slums by 2020 through holistic urban planning, re-zoning, infrastructure upgrading, housing improvements, regularisation of land tenure and extending city services. By 2013, investment totalled BRL2.1 billion and 68 projects had been completed, benefitting 65,000 households and winning the project an award at the inaugural City Climate Leadership Awards (CCLA, 2013). Critics have argued that *Morar Carioca* is an extension of the *Bairro* projects, and prioritises physical intervention over social action. One important improvement is the requirement that construction companies hire 40% of their labour from the local community (Lara, 2013). However, plans for the 2014 World Cup and 2016 Olympics have exacerbated displacements.

## Community-led development

Community-led development can deliver lasting improvements in urban upgrading and there is now growing experience of the power that emerges when communities shape their own urban planning agendas. This section includes two well-known case studies of community-led development. The *Orangi Pilot Project*, dating from the 1980s in Karachi, is an unusual coalition of self-help approaches supported by enlightened professionals working in partnership with local government which now manages a settlement of over a million people (Box 5.6). The *Community-led Infrastructure Finance Facility* (CLIFF) programme is a more recent DFID-funded initiative, managed by the NGO ReAll (formerly Homeless International). CLIFF works with SDI affiliates and other slum communities to provide bridging loans for community-led development (Box 5.7).

**Box 5.6** *Orangi Pilot Project*

In Karachi, the main commercial centre of Pakistan, approximately 60% of the urban population of 15 million people live in informal settlements. Orangi, the largest informal settlement, is situated on the edge of the city with 1.5 million residents (OPP, 2012). As the settlement developed in the late 1960s and 1970s, housing land was provided by middle men who subdivided government land, and sold plots to low-income families who built incremental housing. The city government provided some facilities, for example main roads, water lines and electricity, but these soon proved inadequate. By the 1980s, the use of bucket latrines or soak pits combined with waterlogged land caused health problems such as typhoid, malaria and dysentery (OPP, 1995).

In 1980, the Orangi pilot project (OPP) was established by Dr Hameed Khan to supply homes with water services. The first OPP staff were keen to avoid foreign aid, costly loans and technology too advanced for low-cost maintenance. OPP staff drastically reduced the cost of sanitation to around PKR1,000 (US$31) per dwelling, by simplifying design and slashing contractor rates.

OPP also employed surveyors to map and plan improvements for each lane, typically 10–15 houses. Lane managers, including many women from the community, collected household contributions, resolved disputes and supervised the work (Maskrey and Turner, 1988). By 1993, 4,974 lanes were improved and in its first 16 years, the project assisted over 1 million people with improved sanitation (OPP, 1995).

The principle underlying OPPs work is that 'the community has the resources it needs for development, but needs support to develop these skills' (OPP, 1995, p230). Training masons in sanitation engineering and the lane managers has improved confidence. OPP research shows that residents routinely maintain and repair their systems. The OPP sanitation programme has been rolled out to 463 settlements in Karachi, 44 cities/towns and 93 villages in Pakistan (OPP, 2012). Despite global recognition, since 2013 OPP has encountered problems due to increasing politicisation and violence in Karachi. In March 2013, the widely respected OPP director and architect Parveen Rehman was assassinated (bin Perveiz, 2013).

Sources: Maskrey and Turner, 1988; OPP, 1995; OPP, 2012; bin Perveiz, 2013

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**Box 5.7 CLIFF (Community Led Infrastructure Finance Facility)**

The Community-led Infrastructure Finance Facility (CLIFF) is a venture capital facility that enables organisations of the urban poor to improve their access to public, private or civil society programmes. CLIFF helps partners establish their own funds, and provides bridging loans for capital projects to community organisations that would not otherwise be able to afford finance.

CLIFF was established in 2002 through funding from DFID (over £6.8 million, and the Swedish International Development Cooperation Agency (Sida) (£3 million). Phase 1 of CLIFF was completed in March 2010. DFID has now committed a further £15 million and Sida approximately £3.6 million to support Phase 2 of CLIFF until March 2015. CLIFF partners work with organisations of the urban poor, many of whom establish small savings groups to complete projects.

CLIFF works in India, Kenya, the Philippines, Malawi, Angola, Zimbabwe, Nepal, Tanzania, Egypt, Mozambique, Nigeria and Uganda, and on water and sanitation projects in West Africa. In Mumbai, with the help of Homeless International and the Society for the Promotion of Area Resource Centers (SPARC), pavement dwellers formed a network known as Mahila Milan (women together) to fight evictions and lobby the authorities for resettlement. Work on a housing development began in 2003 and was completed in 2006. Mahila Milan has since helped over half a million people to settle into affordable housing. In the two years from April 2012, CLIFF supported the construction of more than 2,600 homes (together with water and sanitation), benefitting over 12,800 people.

In February 2014 the CLIFF programme was awarded the UN-Habitat Scroll of Honour, an international award that recognises contributions to poverty reduction and improving human settlements.

Source: ReAll (formerly Homeless International), 2014

## 5.5 Planning in fragile cities

Planning in fragile and conflict-affected cities poses particular challenges and more than 1.5 billion people live in countries affected by violence, conflict and fragility. Many of the world's poorest and most vulnerable people live in conflict-affected states or those with high levels of criminal violence, where infant mortality is high and school attendance low (WB, 2011). While not all those affected by violence live in cities, the urban impacts are acute. As the 2011 World Development Report highlights, conflicts remain and many regions suffer from weak governance, cycles of violence, and chronic instability (WB, 2011).

There is no internationally agreed definition of 'fragile cities', but the terms 'fragile states' or 'fragility' generally refer to a fundamental failure of the state to maintain core services, e.g. providing for security and the rule of law, basic services and economic opportunity (McLoughlin, 2012; Moser, 2004). However, this review argues that in an urban setting, the concept of 'fragile cities' should cover both the impacts of civil war and political uprisings such as the 2011 Arab revolutions, and the localised impact of sectarian or criminal violence.

Including a focus on urban areas in post-conflict recovery is important for several reasons. First, spatial exclusion, a driver of urban poverty and violence, is highly visible in urban areas. Second, in fragile states there is often an influx of migrants to urban areas. Third, with the rise of global media and mobile/internet technology, central urban squares or spaces often become symbolic in political struggles.

Strong local government is seen as central to stabilising post-conflict environments, with decentralisation giving voice to local populations and enhancing participation in peace-building. Urban planning agendas in conflict-affected cities are similar to those in informal settlements, with a focus on building capacity in local institutions, particularly local governments, extensive community involvement, and small, achievable and visible targets, such as those achieved by Medellin, Colombia (Box 5.8).

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**Box 5.8 The Metrocable in Medellín, Colombia**

Medellín, the Andean capital of the State of Antioquia, Colombia, has successfully used spatial planning as a tool in fighting urban violence. For many years urban violence had scarred the city. The Metrocable (cable car) was conceived in the mid-1990s to improve access to the metro system for poor communities living in steeply-sloping informal settlements that ring the city, to unlock the potential of these districts, and to encourage integrated urban development and social transformation. Totalling nearly 10 km, three lines were opened in 2004, 2008 and 2010 at a cost of US$92 million. The city has also installed a 1.2 km moving escalator. Although the capacity is limited to 3,000 passengers per hour, the cable car requires limited land take on the city's steep slopes (Dávila, 2014). The social impact has been impressive. In two districts connected by the cable car, the homicide rate plummeted from 188/100,000 residents in 2003 to 30/100,000 in 2008 (Cerdà et al., 2012).

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## *Inclusion in cities - implications for practice*

The term *inclusive cities* is widely used to refer to the inclusion of marginalised communities – slum dwellers, migrants, minority groups, women or young people – in urban processes. Using the concept of *inclusion* to frame the fight against poverty is a key dimension of urban planning, but should be based on an understanding of the drivers of *exclusion,* summarised below:

• Urban poverty is a major determinant of exclusion, and data for 2010 suggest that poverty still affects 1.2 billion people, or around one in eight of the world's population. Urban programmes need to consider poor people as 'citizens' with rights, rather than as 'objects'.

• Inadequate housing, including insecure, hazardous or overcrowded housing, is a major factor contributing to exclusion. Protection against enforced eviction is key to the *right to adequate housing* and reducing poverty.

• Gender and ethnicity are also major drivers of exclusion. Growing evidence suggests that women-headed households are disproportionately represented in poor urban neighbourhoods. Migration status and ethnicity are also linked to discrimination.

- Exclusion is often expressed spatially in cities and the term *divided cities* refers both to cities partitioned by civil war, but also to those segregated along ethnic, sectarian or class lines. Urban planning can sometimes ameliorate spatial divides, but needs strong political backing.

Addressing problems of inclusion requires innovative urban planning tools and rights-based approaches to development that empower urban communities to plan and manage urban space. Such approaches include:

- embedding rights-based approaches in urban planning – for example in Brazil the *right to the city* is proving a powerful paradigm in reframing land and planning legislation, and the 2001 *Statute of the City* introduces a new social function of property.
- In planning for informal settlements and slum upgrading, adopting a commitment to community-led development that challenge the eviction of poor urban dwellers from homes or jobs, supported by policies that respect acknowledged informal land rights and help communities upgrade services. Good examples can be found in Sri Lanka's *Million Houses Programme,* and Rio de Janeiro's *Favella Bairro* programme.
- recognising that community-led development can deliver lasting improvements in urban upgrading, and powerful agendas emerge when communities shape their own urban planning agendas, as demonstrated in Karachi's Orangi Pilot Project, and the DFID-funded CLIFF programme.
- in fragile and conflict-affected cities, adopting urban planning agendas that build capacity in local institutions, support peace-building and community involvement, and aim for small, achievable and visible targets.

Thus, where resources are scare, informal development is the norm, or conflict is rife, urban planning must move away from conventional regulatory approaches to lead negotiated settlements between conflicting groups that shape development paradigms. This requires imagination, flexibility and a social justice approach.

# 6. Planning for sustainable cities

## 6.1 Sustainable development and sustainable cities

Urban areas pose threats to sustainable development objectives (e.g. through high energy use and carbon emissions). However, as concentrations of population and economic activity urban areas are also a key part of the solution. The urban impacts of climate change, water use, energy use, chemicals, wastes and coastal and trans-boundary pollution, are now better researched, but responses rely on adequate knowledge and effective action.

Evidence is mounting that, to date, action to promote sustainable development agendas in cities has had limited effect. As climate change threatens resources and natural ecosystems, an integrated global compact to address these threats is urgently required. Meanwhile poverty and hunger remains persistent in many countries, and rapid urbanisation calls for major changes in the way that urban development is planned and managed (UNDESA, 2013).

This chapter briefly introduces the concepts of *sustainable development* and *sustainable cities*, discusses the resource systems on which cities depend, and issues of risk, resilience and climate change, and examines the role of urban planning in promoting resilience and delivering urban development that minimises resource use.

### Defining 'sustainable development' and 'sustainable cities'

The concept of *sustainable development* was initially developed to support ecological ideals promoted by the International Union for the Conservation of Nature (IUCN) (Allen and You, 2002). In 1983, the UN Secretary General set up the World Commission on Environment and Development (WCED). The 1987 report, *Our Common Future*, adopted the common definition of sustainable development:

> *Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.* (WCED, 1987).

In response, the UN General Assembly set up the *Earth Summit* in Rio de Janeiro in 1992, the UN Conference on Environment and Development (UNCED), and its outcome, *Agenda 21* (UN, 1992) was signed by 178 governments[7].

*Sustainable development* is usually considered to embrace three core domains, environmental, social and economic, based on principles of limiting use of renewable resources to recovery levels and restricting the use of non-renewable resources to ensure inter-generational equity. Some protagonists argue for *strong sustainability* of natural assets that have no substitutes and should be preserved. Others argue for *weak sustainability* which argues that scientific advances will substitute for lost resources (UNDP, 2011a, p15).

A more people-centred approach emphasises the importance of *sustainable human development,* promoting the choice, freedoms and capabilities inherent in human development (UNDP, 2011a, p17; Sen, 1999, Neumayer (2010).

The term *sustainable city* is often used rather loosely, but usually refers to a policy agenda designed to reduce the environmental impacts of urban development. However, while urban practices can contribute to 'sustainable development' agendas, it is unlikely that cities will ever reach a state that can be described as a 'sustainable city'. *Sustainable urbanisation* is the application of sustainable development principles to new urban development (e.g. in peri-urban areas or new settlements).

There is now broad agreement that sustainability objectives should be measureable, transparent and equitable. In the last few decades, donors have become interested in developing indicators that reflect the impacts of development efforts. The Millennium Development Goals were one attempt, but developing internationally comparable indicators that that can be easily measured has proved difficult.

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[7] Two follow-up *Earth Summits* have been held, Rio+10 in 2002 and Rio+20 in 2012 (UN, 2012).

Although many urban indicators have been developed, these usually draw on national data. City-level data may not be available, especially where city governments are poorly resourced. However, indicators are important, so a list of potentially useful urban indicators (Table 6.1) has been drawn from work by UNDESA (2007) for the global Commission for Sustainable Development (CSD). The United Nations Sustainable Development Knowledge Platform also has a range of useful information (UN, 2014a).

*Table 6.1: Commission for Sustainable Development (CSD) indicators potentially applicable to sustainable urban development, Source: UNDESA, 2007, pp10–14*

| Theme | Sub-theme | Core Indicator (non-core indicators in brackets) |
|---|---|---|
| **Poverty** | Income poverty | Proportion of population living below national poverty line |
| | Sanitation | Proportion of population using an improved sanitation facility |
| | Drinking water | Proportion of population using an improved water source |
| | Access to energy | Share of households without electricity or other modern energy services |
| | Living conditions | Proportion of urban population living in slums |
| **Governance** | Corruption | Proportion of population having paid bribes |
| | Crime | Number of homicides per 100,000 population |
| **Health** | Mortality | Under-five mortality rate |
| | Mortality | Life expectancy at birth |
| **Education** | Education level | Net enrolment in primary education |
| | Literacy | Adult literacy rate |
| **Demographics** | Population | Population growth rate (total fertility rate) |
| | Population | Dependency ratio |
| **Natural hazards** | Vulnerability to hazards | Proportion of population living in hazard-prone areas |
| | Disaster preparedness | (human and economic loss due to natural disasters) |
| **Land** | Land use and status | Land-use change (protected area and land degradation) |
| | Agriculture and forestry | Loss of agricultural and forested land to urban development |
| **Oceans, seas, coasts** | Coastal zone | Proportion of population living in coastal areas (potential impact of sea-level rise) |
| **Freshwater** | Water quantity | Proportion of total water resources used |
| | Water quality | Presence of faecal coliforms in freshwater (biochemical oxygen demand in water bodies) wastewater |
| **Biodiversity** | Ecosystems | Proportion of land area protected, total and by region (key ecosystems) (habitats) |
| | Species | Change in threat status of species (Abundance of native/alien species) |
| **Economic** | Macroeconomic | GDP per capita (gross saving) |
| | Sustainable public finance | Debt to gross national income (GNI) ratio |
| | Employment | Employment/population ratio (vulnerable employment) |
| | Employment | Share of women in wage employment in non-agricultural sectors |
| | ICTs | Internet users per 100 people (mobile phone subscribers per 100 people) |
| **Consumption and production patterns** | Material consumption | Material intensity of the economy (domestic material consumption) |
| | Waste generation and mgmt | Generation of hazardous wastes |
| | Waste generation and mgmt | Waste treatment and disposal (management of radioactive waste) |
| | Transport | Modal split of passenger transport (modal split of freight) |

## 6.2 Urban resource systems – food, energy and water

Three inter-related resource systems are key to promoting sustainable development agendas in cities – food, energy and water. Each is discussed briefly below. Urban planning has an important role in protecting supply networks.

*Food:* In 2007-08 riots broke out in more than 60 countries in protest at increases in the cost of rice, wheat and other globally traded food. Until then food supply was usually considered beyond the remit of urban planning. Now, *food security* is seen as a core element of national security and an essential component of sustainability programmes. The land-use requirements for food production, preparation and distribution are thus a central urban planning concern, as urban food systems are connected to many other sectors, including energy, public health, livelihoods, land, transport and economic development. Morgan (2009) argues that complex external factors also affect urban food supplies, for example climate change effects on agricultural production, land conflicts between local farmers and international investors, and rapid urbanisation.

Urban planners play an important role in protecting the land and networks that support food supply systems. In developed countries, urban planning can support *local food* movements[8] and the *healthy cities* agenda, for example by setting up farmers' markets or promoting walking and cycling to tackle diseases such as obesity. In the global South, urban food supply systems can be strengthened by supporting informal urban food markets and supply and storage systems, or urban agriculture (Morgan, 2009). Belo Horizonte's food system is a good example of a city government initiative to increase food security through a combined health cities and urban planning agenda (Box 6.1).

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**Box 6.1 Belo Horizonte's alternative food system – *feeding the city and urban planning***

In 1993, a left-leaning government in Belo Horizonte set up a Secretariat of Food Policy and Supply (*Secretaria Municipal Adjunta de Abastecimento* – SMAAB) to tackle malnutrition and reach vulnerable groups, such as children, nursing mothers and the elderly, and to promote healthy eating habits throughout the city. The city received many international prizes for its initiatives. By 2008, SMAAB operated several programmes:

1. *Supply and regulation of food markets*, that worked with private food suppliers to extend the supply of good quality food at low prices;

2. *Support to urban agriculture*, through planning protection and community involvement;

3. *Subsidised food sales,* including three iconic Popular Restaurants, cafeteria style food and nutrition units open to all, which by 2008 were serving 15,000 meals a day;

4. *Food and nutrition assistance*, including a school meals programme which, in 2007, served over 40 million meals to 155,000 pupils, with federal and municipality funding.     Source: Rocha and Lessa (2009)

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*Energy:* Transforming energy systems is a core element of the sustainable development agenda to which urban planning can contribute. Energy for transport, buildings and industry generates more than 60% of greenhouse gas emissions (GHGs) (UNH, 2009c, p133). Energy is obtained from fossil fuels, nuclear power, hydroelectric generation, biomass and other renewable sources; the type of fuel used to generate electricity has significant impacts on GHG emissions, e.g. hydro- and nuclear power generate significantly lower GHGs than coal (UNH, 2011, p39).

In the industrialised world, most urban energy is used in residential or commercial buildings, followed by transport and industry. In London, Bologna and Tokyo, buildings are thought to account for more than half of energy consumption. In cities in the developing world the pattern is reversed. In Mexico City, Hong Kong and Cape Town, transport is the highest consumer of energy. In mega-cities such as Shanghai and Kolkata, industries consume more than half of total energy used (UNH, 2009c, p161). Middle and low-income countries contribute least to the global consumption of energy, with the exception of India and China, although China is carrying the burden of consumption of other countries. Both countries have introduced building regulations to improve energy conservation (UNH, 2009c, p166).

*Water:* Water conservation is critical for urban planning, for example for protecting water catchments. Using 'sustainable urban drainage' (SUDS) maximises groundwater recharge and minimises local flooding. Urban water use can be divided into *consumptive use* for irrigation, industry, housing or hydropower, and *non-consumptive use* for fishing, transport or recreation. Changes of land use can have a fundamental effect on the hydrological cycle, groundwater recharge and river basins on which urban water resources depend. Problems include over-extraction from rivers and groundwater, and pollution of water bodies by urban waste. Many cities depend on local water supplies where extraction exceeds recharge.

Irrigation for urban food supplies uses about 80% of water extracted, of which less than half reaches crops due to evaporation and leakage. There is a fierce competition for the remaining water between the domestic and industrial sectors. Deforestation to clear land for urban development can lead to loss of groundwater recharge and increase in flooding and soil erosion, and the drainage of wetlands can reduce flood retention capacity and biodiversity. Innovative urban planning is needed to protect water

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[8] Local food movements seek to link local farmers with urban consumers e.g. through schools or urban markets, to support small-scale farmers, increase the quality and quantity of fresh food available to urban population, and reduce food transport costs.

catchments, water quality and groundwater and to make efficient use of water supplies (Rakodi et al., 1996, pp80–81).

## 6.3 Risk, resilience and climate change

### Resilient cities

The combined effects of sea-level rise, floods and storms have damaged the homes and livelihoods of millions of urban dwellers. Despite debate among the scientific community about the frequency and predictability of natural disasters and extreme weather events, there is consensus that the concentration of urban populations and economic activity in hazardous locations is increasing. The impacts of hurricanes, tornados or earthquakes can reduce economic outputs, reverse development gains and threaten the livelihoods of the urban poor (UNISDR, 2013, p68). Urban planning has a key role in managing areas at risk, both in helping protect existing populations and in reducing risk for new urban development.

Sea-level rise is a widespread hazard. According to estimates in 2005, the low-elevation coastal zone (less than 10 m above sea level) contains less than 2% of the world's land area, but 10% of its population and 13% of its urban population. About two-thirds of the world's cities with populations of over 5 million lie within this zone (Satterthwaite et al., 2007).

Adopting the concept of 'resilient cities', several organisations support city governments in tackling risks from natural hazards and climate change. In 2010, UNISDR (United Nations Office of Disaster Risk Reduction) set up a resilience campaign supported by over 2,000 local governments which promotes city-to-city learning, action planning and monitoring to reduce risk. ICLEI–Local Governments for Sustainability also runs an annual congress on urban resilience and climate change adaptation.

Issues of risk and resilience have been extensively researched in DFID's report *Future Proofing Cities,* based on a study of over 100 cities (Atkins and UCL, 2012). The report suggests three levels of risk, many of which are interconnected, that include:

> *Global to local risks:* e.g. high carbon emissions, high energy use, including vulnerability to rising oil and gas prices, and the resulting economic and livelihoods impacts;

> *Regional to local risks:* e.g. risks to water and food security; risks from urban expansion; pressures on biodiversity and natural habitats; health impacts of poor nutrition and regional conflicts;

> *Local risks:* e.g. extreme events – floods, cyclones, landslides, etc.; damage to buildings; overloading basic services, or spread of infectious diseases.

The report argues that there is a window of opportunity to avoid traditional development patterns that involve high energy use in emerging cities (Atkins and UCL, 2012).

However, implementation often depends on the capacity of local governments. An urban planning approach to strengthen resilience, particularly where local governments have limited power to direct urban development, has two important dimensions. First, is to focus urban problems (e.g. lack of infrastructure, development on hazardous land or urban violence) and second is to foster community involvement and community-led initiatives.

### Climate change

Cities are significant contributors to climate change, as urban activities result in concentrations of greenhouse gas emissions (GHGs), but are also part of the solution as a focus for action. There is now considerable work on cities and climate change (e.g. UNH, 2011; Bicknell et al., 2009), including an *Evidence on Demand* paper (Johannessen, 2013). This section briefly mentions urban planning's role in combatting climate change.

Contributors to GHG emissions include industry, transport, construction, household energy and power generation, and urban development resulting in deforestation, land-use changes, agriculture, waste disposal and power generation. Urban areas in the global South generally have much lower carbon

emissions per capita than cities in developed countries. The shift of manufacturing production to China has allowed cities in developed countries to move into service economies reducing their GHG emissions. However, demand for manufactured goods contributes to pollution in China (UNH, 2011, pp10–11).

Action to tackle climate change is normally divided into two approaches. *Mitigation* seeks to reduce fossil fuel emissions and other contributors to climate change, for example through increasing the use of renewable energy and reducing emissions from transport or construction. *Adaptation* seeks to reduce the vulnerability of urban areas or populations to the effects of climate change (Pelling, 2011).

Johannessen (2013) argues that many cities in the global South lack the resources and skills to focus on climate change, and that vulnerabilities arise due to informal or poor development:

- *ineffective or non-existent land-use planning and low investment in infrastructure* mean that informal settlements may be built in risk areas, e.g. in coastal zones or on steep slopes;
- *low quality housing with poor disaster resistance:* in low-income or informal settlements, the design and construction methods put inhabitants at risk from extreme weather events;
- *lack of information and resources:* that affect urban and low-income residents about the extent and likelihood of risk.

Urban planning can help reduce fossil fuel emissions by promoting energy-efficient urban layouts and buildings, for example favouring public transport over car use, and promoting compact urban forms that minimise the need to travel long distances. Focusing on effective public transport, providing basic services that reach the poor, and reducing risks and hazards are key to minimising risks to cities from climate change. Management of water catchments is also important (Box 6.2).

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**Box 6.2 Climate change adaptation in Mexico City**

Mexico City sits in an almost enclosed basin that is important for water catchment. The government has tried to address climate change and water security, but implementation is hampered by social exclusion and lack of building controls. The hydrological cycle has been transformed by urban development. A sophisticated water management system pumps flood water out of the basin while a third of drinking water is brought in, which affects the regional water balance. Mexico's Ministry of Environment and Natural Resources has completed three national assessments of climate change. These have increased understanding of climate change impacts but have not yet reflected the vulnerability of affected populations.

The Federal District (México D.F.) has launched two climate change programmes: the Local Strategy of Climate Action of Mexico City and the Programme of Climate Action of Mexico City (2008–2012). The two programmes promote integrated strategies to reduce GHGs (mitigation) and encourage sectoral adaptation. Although water metering and better connection records have reduced wastage, some of the measures to protect water supply, such as protecting forest cover in the catchment basin, have had limited success. Other measures include an early warning system for disasters and capturing GHG emissions from untreated sewage.

Source: Lankao (2010)

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## 6.4 Fostering sustainable cities

Urban planning remains a key mechanism for delivering sustainable development and resource conservation objectives in cities. Urban planning systems must also address the major urban challenges of climate change, rapid urbanisation, poverty, and informality.

At the strategic level, urban planning as part of a wider urban management agenda is essential to promote sustainable development agendas, requiring integration across the broad domains of land use, food security, job creation, transport, infrastructure development, nature conservation, water conservation, renewable energy, waste recycling, and housing and social services (UNDESA, 2013, pxi).

### Urban design

Urban design has an important role to play in creating urban forms that minimise energy use and promote wider sustainable development objectives (Jenks and Burgess, 2000, pp3–4). This may entail balancing the size, shape and density of urban areas; promoting compact urban forms; supporting mixed land use,

energy-efficient layouts and buildings; and enhancing green spaces. Three planning approaches are core to this agenda:

- *compactness and urban density:* compact urban forms are generally more resource efficient than low-density development, reducing the need to travel and providing local employment within easy reach of homes. However, there is tension between development, poverty reduction and environmental agendas. High-density development (as in Hong Kong) can support high quality public transport, but can create problems such as air and water pollution. Directing development is often feasible only where local government is effective (Jenks and Burgess, 2000, p5).

- *transport:* developing effective public transport and minimising use of private transport, particularly cars, is essential to reduce transport-related carbon emissions and it is important to break the image of public transport as a mode of travel for the poor. In cities with rapid development trajectories, roads quickly become congested as travel demand increases and urban elites aspire to more car use. Low-density districts, once these have developed, are difficult to serve with formal public transport, so informal or collective systems predominate, such as commuter minibuses or motorcycle transport.

- Mass transit is most cost-effective on high-density corridors with significant passenger flows. Light rapid transit (LRT) based on segregated systems is expensive to construct and inflexible to operate. Many cities are now experimenting with bus rapid transit (BRT), which is generally cheaper and easier to modify, but high ticket prices set to recover the costs exclude the poor, and BRT systems may displace cheaper bus services. Wherever possible, public transport improvements should take place without displacing homes and livelihoods.

- *preventing urban sprawl and protecting agricultural land:* many cities were established on fertile land that supported early settlements, but urban sprawl encroaching on farm land reduces the potential for local food provision. Protecting the best agricultural land, and natural assets such as green space, lakes and river fronts, is important in sustainable development policy.

## Going green

There is now increasing recognition of the importance of the *green agenda* in cities (protecting the natural environment) and the need to reconcile the *green agenda* with the *brown agenda* (addressing pollution arising from waste, poor sanitation, smoke emissions etc.)[9] (UNH, 2009b, pp114–115).

The *green agenda* addresses the relationship between cities and local, regional and global ecosystems. Of critical importance is protecting local urban ecosystems, including forests, rivers and wetlands, coastal zones, and local habitats (e.g. wetland drainage can exacerbate local flooding), and minimising the environmental consequences of providing food, water and energy for urban populations.

The *brown agenda* tackles air, water and land pollution by improving the design and management of sewerage, drainage and solid waste systems, minimising domestic/commercial energy use, water catchment conservation, and reducing the impacts of construction, for example extracting aggregates or brick-making. Priorities include effective sewage treatment, reducing pollution of groundwater, rivers and waterways, and reducing atmospheric pollution from industry, construction and transport.

Urban planning initiatives to promote 'sustainable cities' often necessitate integrated approaches across several domains (e.g. see UNH, 2009b, pp115–118). A range of measures can be adopted, for example:

- *promoting renewable energy:* e.g. through improving building regulations or integrating solar, wind or hydropower within existing or new urban areas, e.g. Barcelona's solar ordinance passed in 2000 makes solar energy compulsory in new buildings (ICLEI, 2010).

- *sustainable transport:* reducing transport energy use in cities demands urban design measures to reduce the need to travel, promote public transport and restrain vehicle use. Increasing urban

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[9] Note: the green/brown agendas should not be confused with the terms 'greenfield' development (meaning development on new land, and 'brownfield development' (meaning development on previously developed land).

density to create 'walkable neighbourhoods' and mixed-use development, can provide options for jobs or schooling near to homes.

- *protecting green spaces:* urban planning plays a key role in protecting green spaces from development. Green spaces – formal parks or informal edge-space – have many benefits, e.g. for children's play space, storm water absorption, climate moderation and cleansing urban air. Kafafy (2010) highlighted the social and psychological benefits of green spaces in arid Cairo.
- *low-carbon cities:* low-carbon cities aim to reduce carbon use through energy-efficient building and transport, both in new layouts and by retrofitting existing development.
- *distributed water and power systems:* these replace large centralised systems with small-scale neighbourhood-based systems to reduce line-losses (e.g. water leakage or illegal electricity tapping) and allow better demand management and use of recycled water sources.

*Eco-cities*, a version of low-carbon cities, combine fossil fuel reduction with environmental agendas such as protecting biodiversity. There is no agreed definition of an 'eco-city' but the idea incorporates many of the principles outlined above – compact, mixed-use communities, protecting wetlands and promoting affordable communities. Unfortunately, eco-city concepts are sometimes used to gain development permission where this would not otherwise be granted.

## Integrated development approaches

Integrated approaches are important in ensuring that ecological, environmental and social-justice considerations are integral to land investment and development decisions. The city of Curitiba, in Brazil, is world-renowned for innovative planning that has accommodated rapid growth with environmental conservation. From 1960 and 2007, the city's population increased fivefold, from 360,000 to 1.8m but Curitiba still has one of the lowest rates of air pollution in Brazil (Box 6.3).

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**Box 6.3 Curitiba**

The city of Curitiba has an international reputation for innovation in planning, environmental and transport initiatives. It is world-famous for its bus rapid transit system, known by former mayor Jamie Lerner as a 'surface metro'. The first master plan by French urbanist, Agache, was published in 1943. In the early 1960s young activists protested against plans for an elevated highway in the city core. In response the city mayor set up the IPPUC (*Instituto de Pesquisa e Planejamento Urbano de Curitiba*) an urban think-tank and held a competition for a new city master plan, won by architect Jorge Wilheim.

One of the most important achievements in Curitiba was the integration of land-use and transport planning. The master plan proposed transit-oriented development along high-density land-use corridors, implemented through zoning regulations. Five corridors were established, each with a *trinary road system* – a *bus rapid transit corridor* flanked by *service roads* and *distributor roads* one block away. Integrated ticketing and boarding tubes allowed passengers to board vehicles rapidly. Major terminals with commercial centres were built on each corridor and a system of feeder buses was set up. Later innovations included the introduction of high capacity bi-articulated buses and privatisation of services. By 2012, the system was carrying 2.26 million passengers a day. Although Curitiba's system is facing some congestion, its success has spread worldwide. Around 150 cities have introduced BRT systems, which carry an estimated 28 million passengers a day.

Environmental measures were also key to Curitiba's urban planning approach. Many of the innovations came from the IPPUC. In a programme called *Garbage that is not garbage,* residents of low-income areas brought garbage to a central collection point where and exchanged it for food, food tokens or environmental books for children. Two-thirds of the garbage is recycled. Flood retention ponds were converted to parkland and 15 million trees were planted.

Curitiba was a largely greenfield development, promoted initially under military rule. The lesson for new high-density mixed-use urban growth is that getting land-use and transport linkages right is critical to the success of both.

Source: Madeco, 2004, Cevero, 2013

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## 6.5 Technology

Technology is changing the way that urban systems work and creating powerful opportunities for effective and condition-sensitive urban management that can contribute to sustainable development agendas. Technology provides opportunities for participatory governance, creating new channels of communication between citizens, political representatives and administrations, for example by making local services available online (e.g. planning applications). The Public Policy Lab in New York cites various examples of crowdsourcing to identify urban problems, for example in Newark, citizens can send tweets to the mayor about service problems (PPP, 2014).

There are many exciting applications of technology, for example the use of 'big data' (large data sets) in monitoring urban health systems, public transport movements, water supply and leakage monitoring. Seoul's 25,000 taxis are now using a touch-card GPS system giving real-time traffic information (Smedley, 2013). Technology is now applied to a wide range of urban sectors (Table 7.1)

There are also tensions in adopting technology, and concerns that the term simply relates to the use of ICT for increased control. Richard Sennett contrasts the *stupefying city* – where control centres dictate when and where activities should take place (his examples are Masdar in the United Arab Emirates and Songdo in South Korea) – and the *stimulating city* as illustrated by Rio de Janeiro, where IBM and Cisco have been helping coordinate disaster and traffic congestion responses for the 2016 Olympic Games (Sennett, 2012; Smedley, 2013). The orderly city, Sennett argues, does not foster urban vitality, but technology will displace many urban workers.

*Table 6.21: Use of technology in urban planning*

| Sector | Sub-sector |
|---|---|
| *Natural resources* | Water catchments, waste water management, urban agriculture, urban food supplies |
| *Energy* | Energy grids, renewable energy supplies |
| *Transport and mobility* | Freight movement, traffic congestion, public transport vehicle tracking, electronic information, electronic ticketing, road pricing, accident reduction, mobility for the transport poor, public cycle-hire schemes |
| *Buildings* | Building regulations, energy loss prevention, micro-power generation (e.g. solar power, building-installed wind power) |
| *Environmental quality* | Pollution control, waste management |
| *Human environment* | Cultural heritage protection, health care, culture, poverty reduction, public safety |
| *Government* | eGovernment, ePlanning, democratic transparency |
| *Economy and people* | economic growth, innovation and entrepreneurship, informal economies |

Source: Author

### Smart cities

The concept of *smart cities* is a relatively recent term referring to the use of technology to track urban trends and to adopt flexible policy responses to manage adverse effects. Smart city initiatives refer to the application of information and communication technologies (ICTs) to urban operations. For example, the European Union's *European Initiative on Smart Cities* focuses on three domains:

- *buildings:* regulations to promote zero net energy requirements in new buildings and the lowest feasible energy consumption standards in refurbished buildings;
- *energy:* i) heating and cooling: through biomass, solar and geothermal applications, and the use district heating and cooling systems; ii) electricity: grids allowing renewable generation, electric vehicle recharging, smart metering and smart appliances; and
- *transport:* i) public transport: low-carbon fuel, smart ticketing and travel information; ii) sustainable mobility: intelligent traffic management, road-space demand management, travel information, support for walking and cycling, and improved freight distribution (SETIS, 2014).

Two aspects of smart technology are important: first, access to digitised mapping and diagrammatic representations of urban networks, for example infrastructure or public transport networks, and second, electronic tracking or data collection systems (e.g. of tickets), GPS tracking of movements (e.g. of buses) and monitoring trends (e.g. in air quality).

Despite the rise in debates on 'smart cities', there is no agreed definition of a smart city making it hard to identify global trends (Neirotti et al., 2014). Cities with higher GDP have more resources to develop 'smart city' initiatives, but care must be taken to avoid gimmickry.

*Developing country applications:* There are many problems in applying 'smart city' approaches to the developing world. First, accurate maps of informal settlements or economic activities are rare as these areas are complex and boundaries are unclear, and officials often consider that 'illegal settlements' should not exist. Satellite imagery such as Google maps can partly plug this gap, but maps need to be rectified (checked on the ground) and the resolution is often poor in areas where most poverty occurs. Second, municipal governments lack the resources to maintain sophisticated monitoring systems.

However, new applications are emerging from bottom-up processes, such as new applications of mobile money in Kenya. The challenge is now to bring the benefits of new technology to developing country cities, to help leapfrog conventional approaches and support innovation. Much more research is needed on low-cost technologies that can help manage urban change.

## Planning for sustainable cities - implications for practice

Urban planning is a core mechanism for delivering sustainable development, conserving resources and energy, and protecting the natural environment in cities, based on cross-sectoral approaches that ensure integration of ecological, environmental and social considerations in land investment and development decisions:

- *Resource conservation objectives* delivered through urban planning include reducing energy use through mixed-use and compact urban forms, providing effective public transport and preventing urban sprawl. Where car use is low, cities should grasp the opportunity of promoting rapid public transport and discouraging increases in car use.

- *Environmental objectives* include protecting natural assets e.g. forests, rivers and coastlines, and improving the environment of poor communities by tackling waste management and sanitation.

- Urban planners also have a responsibility to help protect the resource systems on which cities depend, addressing the spatial and conservation requirements of *food supply systems; water supply,* and *energy provision*.

- Reliable indicators are needed to track sustainable development trends, e.g. measuring income, poverty and inequality; access to clean water and sanitation; people living in hazard-prone areas; and the effects of forest, river or coastal zone protection measures.

- Urban planning will increasingly become a central tool in *risk reduction* and *climate change mitigation and adaptation*, identifying hazard-prone land, and developing strategies to reduce risk and support urban response systems.

- New technology can play a part in promoting sustainable development agendas in cities. Although the term 'smart city' is vague, use of satellite imagery, digitised mapping and GIS and has been key in developing new urban management tools.

- The challenge is now to use new technology to help developing countries leapfrog conventional approaches and plan sustainable cities.

| Action plan | Short-term urban plan addressing a specific problem, or focusing on a defined area. Usually non-statutory and drawn up through participatory processes |
|---|---|
| Aid effectiveness [1] | Measure of the effectiveness of aid delivery in order to maximise the impact of aid on poverty reduction and development |
| Big data | Large data sets that are too difficult to process using traditional processing applications |
| BRICS | BRIC is the acronym for four major emerging economies – Brazil, Russia, India and China; the 'S' is sometimes added to include South Africa |
| BRT | Bus Rapid Transit – bus-based mass-transit system, usually but not always running on segregated road space; capacities can match those of urban metros |
| Budget support [1] | Programmatic aid in which: a) funds are provided to support a government programme that focuses on growth and poverty reduction, and transforming institutions; b) funds are provided directly to a partner government |
| Building height | Can refer to either the number of storeys or height (usually ground to eaves level) |
| CIAM | Congrès International d'Architecture Moderne – European movement founded in Switzerland in 1928 responsible for promoting new ideas in architecture |
| Civil Society Organisation (CSO)[1] | Civil Society Organisation – a network occupying 'social space' between the family and the State which advocates common interests, e.g. volunteer and charity groups, parents and teachers associations, senior citizens groups, sports clubs, arts and culture groups, faith-based groups, workers clubs and trade unions, non-profit think-tanks and "issue-based" activist groups |
| Collective transport | The main form of urban transport in many middle and low-income cities; services usually by mini-bus or shared taxi; often run on fixed routes but with flexible stopping points; various aspects of the service may be informal |
| Community-led development | Development initiated by communities, often used in the context of informal settlement upgrading |
| Customary tenure | Land ownership vested in a community, kinship group or tribe that is widely accepted but which may not confirm to formal (legal) tenure requirements; some legal regimes include customary rights |
| DAC list of ODA recipients | List published by the Development Assistance Committee of the OECD of aid recipient countries (usually least developed countries). DAC is a forum of 22 donor countries and the EU, which seeks to increase aid flows and effectiveness |
| Development control | The processing of development applications by the authority responsible for issuing planning permits, usually municipal or district government |
| Development management | Another name for development control |
| Development permit | Permission to build, sometimes known as 'planning permission' or 'planning permit', usually granted by municipal or district government |
| Eco-city | A loosely used term for urban development that seeks to minimise carbon emissions and protect the environment |
| Environmental appraisal | Systematic appraisal of the environmental impacts of major development, including natural and human impacts; requirements are often defined in legislation |
| FAR (floor area ratio) FSI (floor space index) | Ratio of permitted floor area of new building to plot size |
| *Favela-Bairro* | Literally meaning 'slum to neighbourhood' a major project in Rio de Janeiro started in 1994 which aimed to integrate the favelas (slums) into the city fabric, noted for its multi-disciplinary approach (Box 5.5) |

| | |
|---|---|
| Feminisation of poverty | A reference to emerging evidence that women represent a disproportionate percentage of the world's poor people |
| Floor area ratio (FAR) | A measure of the density of development on a plot (lot or site) - ratio of plot area to built floor space; also called 'plot ratio' and 'floor space index' (FSI) |
| Fragile states [1] | States where the government cannot or will not deliver core functions to the majority of its people, including the poor, and thus people are vulnerable to adverse economic or environmental conditions, and the state is vulnerable to civil unrest |
| GIS - Geographic information system | Spatial data superimposed on a map |
| Globalisation [1] | Growing independence and interconnectedness of the modern world through increased flows of goods, services, capital, people and information, driven by technological advances and reductions in the costs of integrated transactions |
| Governance | The system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sector; the way society organises itself to make and implement decisions (UNDP, 2011b, p287) |
| Government | Formal institutions of the nation state, usually considered to include the executive, legislature and judiciary |
| Green economy | Economic development aimed at improving well-being and social equity while preserving environmental assets |
| Gross domestic product (GDP) [1] | Total value of goods and services produced within a country |
| Gross national income (GNI) [1] | Total Gross Domestic Product (GDP), *plus* income received from other countries (notably interest and dividends), less similar payments made to other countries. Previously known as Gross National Product |
| Gross national product (GNP) [1] | Total Gross Domestic Product (GDP), *plus* income received from other countries (notably interest and dividends), less similar payments made to other countries |
| Hazardous development | Development with the potential to harm human health, e.g. chemical factories, waste incineration unit |
| Housing density | Usually measured as the number of dwelling units per hectare |
| Human development index (HDI) [3] | A composite measure of average achievement across three dimensions representing health, education and income; these include : life expectancy at birth; education based on mean years of schooling; and gross national income per capita; usually published at country level (UNDP, 2014) |
| Informal economy [4] | Diversified set of economic activities, enterprises and workers not regulated or protected by the state; originally applied to small-scale unregistered enterprises, the concept is now widened by the ILO to include the wage employment in unprotected jobs (WIEGO, 2014) |
| Informal employment [4] | Complex category covering workers in unprotected employment, including self-employed workers in informal enterprises, and informal wage employment in formal or informal enterprises: e.g. casual workers, paid domestic workers, undeclared workers, and homeworkers |
| Informal sector [2] | Small-scale enterprises that operate at least in part outside legal and regulatory frameworks; in practice many comply in part with regulatory requirements; sometimes defined as unincorporated enterprises owned by households that not registered under national legislation, e.g. for tax, social security or regulation (statistical definitions are provided by the ILO) |
| Informal settlements [2] | The term refers to both land and buildings and can include: a) areas where a group of dwellings are built on land to which the occupants have limited or no legal claim, and b) buildings without formal planning or building approval |
| Land information system (LIS) | Spatial data superimposed on a mapped cadastral (plot) basis, for example showing planning controls, ownership, taxation restrictions etc. |

| Land pooling | A form of land readjustment whereby all rights holders join in a compulsory partnership; usually managed by a government agency |
|---|---|
| Land readjustment | Rearrangement of land on adjoining sites in fragmented ownership in order to provide for the provision of urban services, usually to facilitate urban development on peri-urban areas, or slum upgrading |
| Land regularisation | Provision of legal title to occupants with informal or no title |
| LDCs | Least developed countries – those that fall below UN-defined thresholds for income, economic vulnerability and human development |
| Local plan | Urban plan usually focusing on a defined area or district; often relatively short-term (5–10 years); usually based on cadastral boundaries, usually depicting roads, public open space and plot boundaries; often a statutory plan |
| Low-income countries [1, 5] | Defined each year by the World Bank, based on GNI per capita for the previous year; from July 2014 low-income economies were defined as those with a GNI per capita (using the World Bank Atlas Method) of US$1,045 or less (WB, 2014c) |
| Master plan | Spatial or physical plan that depict the form of an urban area at some point in the future; widely critiqued in planning literature as being ineffective, but the idea still persists in some countries (UNH, 2009b, p11) |
| Mega-cities | An imprecise term, usually referring to cities with a population of 10 million + |
| Mega-projects | Large urban development projects; often refers to major sporting facilities or infrastructure projects |
| Metropolitan plan | City-wide urban plan, sometimes called a 'strategic plan' or 'city plan', often medium or long-term (15–30 years), used to determine the overall direction of development and major infrastructure requirements; often a statutory plan |
| Millennium Development Goals (MDGs) [1] | Eight international development goals for 2015, adopted by the international community in the UN Millennium Declaration in September 2000, and endorsed by IMF, World Bank and OECD |
| Modernist planning | 'Modern' urban planning arose in the late 19th century, seen as an exercise in physical design, a technical activity carried out by experts, based on the production of master plans or 'end-state' plans; these have been widely critiqued in planning literature (UNH, 2009b, p10) |
| Neighbourhood plan | Urban plan usually focusing on a defined neighbourhood or small area; often relatively short-term (5–10 years); usually based on cadastral boundaries, depicting roads, public open space and plot boundaries |
| Non-statutory plan | Urban plan not defined in legislation |
| Official Development Assistance (ODA)* | Defined as flows to developing countries and multilateral institutions provided by official agencies or by their executive agencies, which meet the following tests: a) it is administered with the promotion of the economic development and welfare of developing countries as its main objective; and b) it is concessional in character and conveys a grant element of at least 25% |
| Paris Declaration [1] | International agreement in which over 100 countries and organisations committed to continue to increase efforts in harmonisation |
| Participatory budgeting | A process of open, democratic deliberation to determine government spending priorities, often capital spending, pioneered in Porto Alege, Brazil, in 1989; another noted example was started in 1996 in Kerala, India |
| Participatory planning | A process of open, democratic deliberation to determine priorities for spatial planning; now a legislative requirement for some statutory planning processes |
| Planning appeal | Statutory right to challenge a planning decision, particularly a refusal of permission to build, available in some jurisdictions |
| Planning enforcement | Enforcement of planning regulations through legal processes |
| Planning permits/planning permission/planning approval | Permission to build or alter the use of a land or building; usually granted by the relevant government authority often municipal or local government |

| | |
|---|---|
| Poverty line/absolute, relative | Minimum income needed to sustain a household; *absolute poverty line* is the minimum level required to cover basic food energy requirements or cost of basic needs; *relative poverty line* is defined in relation to average national consumption levels |
| Poverty reduction strategies (PRSs)* | Prepared by developing country governments, usually in collaboration with the World Bank and International Monetary Fund as well as civil society and development partners, covering policies and programmes to promote growth and reduce poverty |
| Protection zone | Zone in which building is prohibited e.g. along water courses or coastal zones |
| Public open space | Officially designated open space, including play space, pitches, parks etc. |
| Public participation | The involvement of communities, groups and members of the public in the development of planning proposals |
| Public-private partnerships (PPPs) [1] | The term PPP covers a wide range of types of partnership, usually referring to the introduction of private-sector ownership into state-owned businesses |
| *Right to the City* | Urban development paradigm that challenges the role of neo-liberal and free-market policies that support profit-oriented urban development, and argues for the 'social function of property'; a powerful concept that has been adopted in legislation in Brazil, Ecuador and in legislation and policy elsewhere in Latin America |
| Road reservations | Total land in public ownership = carriageway, sidewalks + utility reserves |
| SDGs | Sustainable Development Goals – designed to replace the MDGs |
| Set-backs | Building set-backs from the plot boundary |
| Slum | Word used to describe settlement or neighbourhood with a range of problems, including inadequate provision of water and sanitation, insecure tenure, poor quality buildings and overcrowding; the term may include both old run-down areas and new informal settlements; however the term has been criticised as being derogatory for occupants |
| Spatial planning | Statutory and non-statutory approaches to analysing land-use change and developing proposals that direct the future physical development of an area or settlement |
| Statutory plans/instrument | Plan or directly produced in accordance with requirements laid down in legislation |
| Strategic plan | City-wide urban plan, sometimes called a 'metropolitan plan' or 'city plan'; often medium or long-term (15–30 years); used to determine the overall direction of development and major infrastructure requirements; often a statutory plan |
| Structural adjustment | A process of market-oriented economic reform aimed at reducing national debt through cutting government budgets, lowering subsidies and reducing import controls; favoured by the World Bank during the mid-1980s |
| Subsidiarity | Decision-making at the lowest practical tier of government |
| SUDS | Sustainable urban drainage; drainage system installed as part of a development project that seeks to limit rainfall run-off to pre-development levels, e.g. through inclusion of flood retention areas |
| Tenure system/land tenure system | Set of formal or informal rules which determine access to and control over land |
| Tenure/land tenure | Land tenure refers to rights hold or occupy property. Tenure can include legally defined rights (often freehold, leasehold, public or private rental) and a range of customary or religious rights. In many countries land rights are complicated and modern (often inherited colonial) systems are juxtaposed with traditional systems of land rights |
| Transferrable development rights (TDR) | TDRs allow for the transfer of unused development rights from one plot to another |

| | |
|---|---|
| Upgrading | An approach which seeks to upgrade informal settlements and poor quality neighbourhoods through an integrated programme designed to: provide or improve basic services (water, sanitation and electricity), regularise tenure, improve schools and health services, and support livelihood development; there are now several excellent examples of participatory upgrading (Boxes 2.4 and 2.5) |
| Urban design | A branch of urban planning relating to the spatial design and layout of cities, districts, neighbourhoods or sites; innovation informed by community and participatory processed expressed through physical design initiatives; often leads to investment in the public realm |
| Urban management | All the activities required to manage public goods within urban areas, including natural and built environments, infrastructure and the provision of security; usually led by urban governments, but may be provided by a coalition of government, community and the private sector |
| Urbanisation/level and rate of urbanisation | Process of urban growth. The 'level of urbanisation' is the % of urban/total population in a country; 'rate of urbanisation' is the annual urban population growth rate; accurate measurement of both is difficult |
| World Bank [1] | Term commonly used to refer to the International Bank for Reconstruction and Development, the International Development Association, and three other agencies – the International Finance Corporation, the Multilateral Investment Guarantee Agency and the International Centre for Settlement of Investment Disputes; together known as the World Bank Group |
| Zoning/land-use zoning | Mapped land-use zoning on a detailed physical plan showing plot boundaries, usually a statutory plan, that limits categories of development in zoned areas |

## Sources:

The author unless otherwise stated

1. DFID. (2014) Glossary of terms used by the Department of International Development https://www.gov.uk/government/publications/glossary-of-terms-used-by-the-department-for-international-development/glossary-of-terms-used-by-the-department-for-international-development#g

2. OECD. (2014) Glossary of statistical terms, http://stats.oecd.org/glossary/index.htm

3. UNDP. (2014) Human Development Index (HDI) http://hdr.undp.org/en/content/human-development-index-hdi

4. WIEGO. (2014) The informal economy, http://wiego.org/informal-economy/about-informal-economy

5. WB. (2014) Updated income classifications, http://data.worldbank.org/news/2015-country-classifications

Note: All websites below were accessed in January–July 2014.

ADB. (2014) *Urban development: Core Areas*. http://www.adb.org/themes/urban-development/core-areas

ADB. (2011) *Inclusive Cities: ADB Urban Development Series*. Asian Development Bank (ADB). http://www.adb.org/publications/inclusive-cities

'AfDB approves urban development strategy for African Cities', *African Development Bank Group*, 29 April 2010. http://www.afdb.org/en/news-and-events/article/afdb-approves-urban-development-strategy-for-african-cities-7959/

Allen, A. (2009) *Sustainable cities or sustainable urbanisation*. London: University College London Urban Laboratory. http://www.ucl.ac.uk/sustainable-cities/results/gcsc-reports/allen.pdf

Allen, A., and You, N. (2002) *Sustainable Urbanisation: Bridging the Green and Brown Agenda.* London: Development Planning Unit.

Atkins and UCL. (2012) *Future Proofing Cities*. http://www.futureproofingcities.com/unique_approach.html

Atkins, WS and UCL (2012) *Future proofing cities: risks and opportunities for inclusive urban growth in developing countries.* UK: DFID.

Balbo, M. (2009) *Social and spatial inclusion of international migrants: local responses to a global process*. Venice: SSIIM UNESCO Chair. http://www.unescochair-iuav.it/en/wp-content/uploads/sites/2/2014/09/ssiimpsno1_for-web.pdf

Barra, S. (2003) *Changing the rules: guidelines for the revision of regulations for urban upgrading*. India: SPARC. http://www.sparcindia.org/docs/CRZpaper.doc

Beall, J., Crankshaw, O. and Parnell, S. (2013) *Uniting a divided city: Governance and Social Exclusion in Johannesburg*. London: Routledge.

Bicknell, J., Dodman, D. and Satterthwaite, D. (eds.) (2009) *Adapting Cities to Climate Change: Understanding and addressing the development challenges.* London/Sterling: Earthscan.

Brown, A. (2013) 'The Right to the City: Road to Rio 2010', *International Journal of Urban and Regional Research*, *37 (3)*, p957-971.

Brown, A. (2010) 'Requiem for stability: impact of the global recession on the world's working poor', *International Planning Studies*, *15 (3)*, p175-189.

Brown, A. (2006) *Contested space: street trading, public space and livelihoods in developing cities*. Rugby: ITDG Publishing.

Byrne, D. (1999) *Social Exclusion*. Buckingham: Open University Press.

Calame, J. and Charlesworth, E. (2012) *Divided Cities: Belfast, Beirut, Jerusalem, Mostar, and Nicosia*. Philadelphia: Penn Press.

Carr, M. and Chen, M. (2001) *Globalization and the informal economy: how global trade and investment impact on the working poor*. WIEGO. http://wiego.org/sites/wiego.org/files/publications/files/Carr-chen-Globalization-Informal-Econ.pdf

City Climate Leadership Awards (CCLA). (2013) *The Winners*: Rio de Janeiro: Morar Carioca. http://cityclimateleadershipawards.com/rio-de-janeiro-morar-carioca/

Cerdà, M., Hansen, B., Tessari Hicks, K., Duque, L., Restrepo, A. and Diez-Roux, A. (2012) 'Reducing Violence by Transforming Neighborhoods: A Natural Experiment in Medellín, Colombia', *American Journal of Epidemiology, 175 (10)*, p1045-1053. http://aje.oxfordjournals.org/content/175/10/1045.full

Cevero, R. (2013) *Bus Rapid Transit (BRT): An Efficient and Competitive Mode of Public Transport*. California: Berkeley Institute of Urban and Regional Development. http://iurd.berkeley.edu/publications/wp/2013-01.pdf

Cevero, R. (2000) *Informal transport in the developing world*. Nairobi: UNCHS.

Chant, S. (2013) 'Cities through a 'gender lens': a golden 'urban age' for women in the global South?' *Environment and Urbanization*, *25 (9)*, p9-29.

Chant, S. (2008) 'The 'feminisation of poverty'and the 'feminisation'of anti-poverty programmes: Room for revision?', *Journal of Development Studies*, *44 (2)*, p165-197.

Chant, S. and Datu, K. (2011) *Women in cities: prosperity or poverty? A need for multi-dimensional and multi-spatial analysis*. London: UCL "City in Urban Poverty Workshop".

Chen, M. (2012) *The informal economy: definitions, theories and policies. WIEGO Working Paper No: 1*. Cambridge. http://wiego.org/sites/wiego.org/files/publications/files/Chen_WIEGO_WP1.pdf

Vanek, J. Chen, M., Carré, F. Heintz, J. and Hussmanns, R.(2012) Statistics on the informal Economy: Definitions, regional estimates and challenges, WIEGO Working Paper (Statistics) No. 2 http://wiego.org/wiego/wiego-working-paper-series

Cities Alliance. (2001) *Urban Upgrading*. http://web.mit.edu/urbanupgrading/index.html

Clarke, C. (2006) 'Politics, Violence and Drugs in Kingston, Jamaica', *Bulletin of Latin American Research*, *25 (3)*, p420-440.

Commonwealth Local Government Forum (CLGF). (2014) *CLGF Inclusive Cities Network*. http://www.clgf.org.uk/inclusive-cities-network/

Cohen, B. (2006) 'Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability', *Technology in Society*, *28 (1)*, p63-80.

Cohen, M. (2001) 'Urban assistance and the material world: 'Learning by doing' at the World Bank', *Environment and Urbanization*, *13 (1)*, p37-51.

COHRE. (2003) *Housing Rights in Brazil: Gross Inequalities and Inconsistencies.* Rio Grande do Sul: COHRE Americas Programme.

Cross, J. and Karides, M. (2007) 'Capitalism, modernity and the "appropriate" use of space', in Cross, J. and Morales, A. (eds.) *Street Entrepreneurs: People, place and politics in local and global perspective*. London/New York: Routledge.

Dávila, J. (ed.) (2013) *Urban mobility and poverty: Lessons from* Medellín *and Soacha, Colombia*. London: DPU, UCL and Universidad Nacional de Colombia. http://www.bartlett.ucl.ac.uk/dpu/metrocables/book

Davis, M. (2006) *Planet of Slums.* London: Verso.

Davis, N. (2014) 'Jamaica 'no safer' after capture of gang leader Coke', *BBC News*, 14th April 2014. http://www.bbc.co.uk/news/world-latin-america-26374324

Devas, N. et al. (2004) *Urban Governance, Voice and Poverty in the Developing World.* London: Earthscan.

Duminy, J. and Luckett, T. (2012) *Literature survey: mega-Events and the working poor, with a special reference to the 2010 FIFA World Cup*. Cape Town: African Centre for Cities and WIEGO.

Fainstein, S. (2010) *The Just City*. Cornell: Cornell University Press.

Federal Department of Town and Country Planning Malaysia. (2010) *National Physical Plan-2*. Kuala Lumpur. http://www.kpkt.gov.my/kpkt_2013/fileupload/dasar/NPP.pdf

Fernandes, E. (2007) 'Constructing the 'right to the city' in Brazil', *Social Legal Studies, 16 (2)*, p201-219.

Frediani, A. (2006) *The World Bank and urban policies, from housing sector to 'sustainable cities' – The Urban Poor of Salvador da Bahia, Brazil*. Darmstadt: N-Aerus Conference. http://www.n-aerus.net/web/sat/workshops/2006/papers/frediani.pdf

Gilbert, A. (2007) 'The return of the slum: does language matter?' *International Journal of Urban and Regional Research*, *31 (4)*, p697-713.

Gilbert, A. (2001) On the mystery of capital and the myths of Hernando de Soto: what difference does legal title make? Leuven: N-Aerus Conference.

Global Land Tools Network (GLTN). (2014) *GLTN Publications*. http://www.gltn.net/index.php/resources/publications

Government of the Hong Kong Special Administrative Region (GoHK). (2014) *Hong Kong planning standards and guidelines*. Hong Kong. http://www.pland.gov.hk/pland_en/tech_doc/hkpsg/

Graham, S. and Marvin, S. (2002) *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition.* New York: Routledge.

Hamdi, N. and Goethert, R. (1997) *Action Planning: A guide to community practice.* Chichester: John Wiley and Sons.

Harris, R. and Godwin A. (2007) 'The Rise of Housing in International Development: The Effects of Economic Discourse', *Habitat International*, *31*, p1-11.

Hart, K. (1973) 'Informal income opportunities and urban employment in Ghana', *Journal of Modern African Studies, 11 (1)*, p61-89.

Harvey, D. (2012) *Rebel Streets: From the right to the city to the urban revolution.* London: Verso.

Harvey, D. (2008) The right to the city, *New Left Review,* 53, Sept/Oct: 23-40

Harvey, D. (2003) The right to the city, *International Journal of Urban and Regional Research,* 27(4): 939-941

Hendriks, B. (2010) *Urban livelihoods, institutions and inclusive governance in Nairobi. 'Spaces' and their impacts on quality of life, influence and political rights*. Amsterdam: University of Amsterdam.

Herrera, J., Kuépié, M., Nordman, C., Oudin, X. and Roubaud, F. (2011) *Informal sector and informal employment: overview of data for eleven cities in ten developing countries. WIEGO Working Paper (Statistics) No: 9*. Cambridge. http://wiego.org/sites/wiego.org/files/publications/files/Herrera_WIEGO_WP9.pdf

Habitat International Coalition Housing and Land Rights Network (HIC-HLRN). (2005) *HIC-HLRN "Toolkit"*. Giza. http://www.hlrn.org/toolkit/English/explore/All%20Elements.pdf

IADB. (2014) *Urban development*. http://www.iadb.org/en/topics/urban-development/urban-development,1175.html

IADB. (2011) *Improving living conditions in low-income neighbourhoods in Rio de Janeiro*. Washington: Inter-American Development Bank.

Inclusive Cities (IC). (2014) *Inclusive Cities work better*. http://www.inclusivecities.org/about_us/

ICLEI. (2010) Barcelona, Spain: a new energy model to tackle climate change. Brief case study on local climate and energy actions #14. Barcelona. http://www.iclei-europe.org/fileadmin/templates/iclei-europe/files/content/Membership/MUTS/Barcelona/LG_Action_case_Barcelona_EN_final.pdf

International Labour Organization (ILO). (2012) *Statistical update on employment in the informal economy*. Geneva. http://laborsta.ilo.org/applv8/data/INFORMAL_ECONOMY/2012-06-Statistical%20update%20-%20v2.pdf

ILO (1973) *Employment, Income and Equality: A strategy for increasing productivity in Kenya.* Geneva.

International Society of City and Regional Planners (ISOCARP). (2008) *International Manual of Planning Practice.* http://isocarp.org/product/international-manual-planning-practice-impp/

IOM. (2013) *World Migration Report 2013 – Migrant Well-being and Development*. Geneva. http://www.iom.int/cms/wmr2013

Jenkins, P., Smith, H. and Wang, Y-P. (2007) *Planning and Housing in the Rapidly Urbanising World.* London/New York: Routledge.

Jenks, M. and Burgess, R. (2000) *Compact Cities: Sustainable Urban Forms for Developing Countries*. New York/London: Routledge.

Johannessen, L. (2013) *Cities in developing countries and their development in response to climate change and resource scarcity*. UK: Evidence on Demand.

Kafafy, N. (2010) *The dynamics of urban green space in an arid city: the case of Cairo – Egypt*. Cardiff: Cardiff University (unpublished PhD thesis).

Koukuey Design Initiative (KDI). (2014) *News*. http://www.kounkuey.org/

Koonings, K. and Kruijt, D. (2007) *Fractured Cities: Social Exclusion, Urban Violence and Contested Spaces in Latin American Cities*. London: Zed Books.

Kumar, S. (1996) 'Landlordism in third world urban low-income settlements: a case for further research', *Urban Studies, 33 (4-5)*, p753-782.

Lankao, P. (2010) 'Water in Mexico City: what will climate change bring to its history of water-related hazards and vulnerabilities', *Environment and Urbanization, 22 (1)*, p157-178.

Lara, F. (2013) 'Favela upgrade in Brazil: A reverse of participatory processes', *Journal of Urban Design, 18 (4)*, p553-564.

Lloyd, P. (1979) *Slums of Hope; Shanty Towns of the Third World*. Manchester: Manchester University Press.

Lyons, M., Brown, A. and Li, Z-G. (2013) 'The China-Africa value chain: can Africa's small-scale entrepreneurs engage successfully in global trade?' *African Studies Review, 56 (3)*, p77–100.

Mabin, A. and Smit, D. (1997) 'Reconstructing South Africa's cities? The making of urban planning 1900-2000', *Planning Perspective, 12 (2)*, p193–223.

Macedo, J. (2004) 'City profile: Curitiba', *Cities*, *21 (6)*, p537-549.

Marcuse, P. (2009) 'From critical urban theory to the right to the city', *Cities*, *13 (2)*, p185-197.

Marcuse, P. (1993) 'What's new about divided cities?' *International Journal of Urban and Regional Research, 17 (3)*, p355-365.

Marcuse, P. and van Kempen, R. (2002) *Of States and Cities: The Partitioning of Urban Space*. Oxford: Oxford University Press.

Maskrey, A. and Turner B. (1988) *Building Community - A Third World Case Book - Orangi Pilot Project: A low cost sewer system by low income Pakistanis*. Karachi. http://www.communityplanning.net/JohnTurnerArchive/pdfs/BCcases10.pdf

McAuslan, P. (1998) 'Urbanization, law and development: a record of research', in Fernandes, E. and Varley, A. (eds.) *Illegal Cities: Law and Urban Change in Developing Countries*. London: Zed Books, p18-53.

Mcloughlin, C. (2012) *GSDRC Topic Guide on Fragile States*. UK: University of Birmingham. http://www.gsdrc.org/docs/open/CON86.pdf

Medeiros, M. and Costa, J. (2008) 'Is there a feminization of poverty in Latin America?' *World Development*, *36 (1)*, p115-127.

Mitlin, D. and Satterthwaite, D. (2013) *Urban Poverty in the Global South: Scale and Nature*. London/New York: Routledge.

Moghadam, V. (2005*) The 'feminization of poverty' and women's human rights. SHS Papers in Women's Studies/Gender Research*. Paris: UNESCO

Morgan, K. (2009) 'Feeding the City: The challenge of urban food planning', *International Planning Studies*, *14 (4)*, p341-348.

Moser, C. (2004) 'Urban violence and insecurity: a roadmap', *Environment and Urbanization, 16 (2)*, p3-16.

Moser, C. (1998) 'The asset vulnerability framework: reassessing urban poverty reduction strategies', *World Development, 26 (1)*, p1-19.

Neirotti, P., de Marco, A., Cagliano, A., Mangano, G. and Scorrano, F. (2014) 'Current trends in Smart City initiatives: Some stylised facts', *Cities*, *38 (1)*, p25-36.

Neumayer, E. (2010) *Human Development and Sustainability. Human Development Research Paper 210/05*. New York: UNDP–HDRO.  http://hdr.undp.org/sites/default/files/hdrp_2010_05.pdf

Nomico, M. and Sanders, P. (2003) 'Dichotomies of urban change in Durban', *Urban Design International*, *8 (4)*, p207-222.

OECD. (2013) *DAC List of ODA Recipients Effective for reporting on 2012/13 flows*. http://www.oecd.org/dac/stats/DAC%20List%20used%20for%202012%20and%202013%20flows.pdf

Office of the High Commissioner for Human Rights (OHCHR) and UN-Habitat (UNH). (2009) *The right to adequate housing*. Geneva.

Orangi Pilot Project (OPP). (2012) *Low Cost Sanitation Programme in Orangi*. http://www.oppinstitutions.org/low%20cost%20sanitation%20program%20in%20orangi1.htm

OPP. (1995) 'NGO profile: Orangi pilot project', *Environment and Urbanization*, *7 (2)*, p227-236.

Ostanel, E. (2010) Practice of citizenship, practice of resistance: Mozambicans in Johannesburg, South Africa. Series Vol. 3. Venice: SSIIM UNESCO Chair. http://www.unescochair-iuav.it/wp-content/uploads/2014/07/ssiimpsno3_ostanel1.pdf

Otto, J. (2009) 'Rule of law promotion, land tenure and poverty alleviation: questioning the assumptions of Hernando de Soto', *Hague Journal on the Rule of Law*, *1 (1)*, p173-195.

Patel, K. (2013) Topic Guide: Provision and improvement of housing for the poor. UK: Evidence on Demand. http://www.evidenceondemand.info/topic-guide-provision-and-improvement-of-housing-for-the-poor

Payne, G. (ed.) (2002) *Land Rights and Innovation: Improving Tenure Security for the Urban Poor*. Rugby: ITDG Publishing.

Payne, G. (2001) 'Urban land tenure policy options: titles or rights?' *Habitat International, 25 (2),* p415-419.

Payne, G. (1996) Urban land tenure and property rights in developing countries: a review of the literature. London: ODA. http://api.ning.com/files/Qj0QAzw4W57MbqHpX5CzdJw4OMctpscE7*rOFRMsmKMyK3VOGbMw*5P1Zet7nb0Kx241mFN1K6kmSheZOqpZO79w2kl5ocMN/UrbanLandTenureandPropertyRightsinDevelopingCountries.AReviewoftheLiterature.pdf

Pelling, M. (2011), *Adaptation to Climate Change; From Resilience to Transformation.* Abingdon: Routledge.

bin Perveiz, S. 'Orangi Pilot Project director killed in Karachi', *International News*, 14 March 2013. http://www.thenews.com.pk/Todays-News-13-21571-Orangi-Pilot-Project-director-killed-in-Karachi

Potts, D. (2009) 'The slowing of sub-Saharan Africa's urbanization: evidence and implications for urban livelihoods', *Environment and Urbanization, 21 (1)*, p253-259.

Public-private sector infrastructure advisory facility (PPIAF). (2014) *About us*. http://www.ppiaf.org/page/about-us

Public Policy Lab (PPP). (2014) *Posts tagged 'crowdsourcing'*. http://publicpolicylab.org/tag/crowd/

Pugh, C. (2001) 'The Theory and Practice of Housing Sector Development for Developing Countries, 1950-99', *Housing Studies, 16 (4)*, p399-423.

Rakodi, C. with Lloyd-Jones, T. (2002) *Urban Livelihoods: A people-centred approach to reducing poverty.* London/New York: Routledge.

Rakodi, C., Brown, A. and Treloar, D. (1996) *Issues in the integrated planning and management of river/lake basins and coastal areas: a human settlements perspective*. Nairobi: United Nations Centre for Human Settlements.

Ramirez, R. (1990) *Urbanization, housing and the (withdrawing) state: the production-reproduction nexus. Working Paper 23.* London: Development Planning Unit. http://www.whoseolympics.org/bartlett/dpu/publications/latest/publications/dpu-working-papers/WP23.pdf

Real Equity for All (ReAll). (2012) *Home*. http://reall.xyz/

Rocha, C. and Lessa, I. (2009) 'Urban governance for food security: the alternative food system in Belo Horizonte, Brazil', *International Planning Studies*, *14 (4)*, p389-400.

Rothwell, J. and Massey, D. (2010) 'Density zoning and class segregation in US metropolitan areas', *Social Science Quarterly, 91 (5)*, p1123-1141.

Samson, M. (2010) *Reclaiming reusable and recyclable materials in Africa: a critical review of English language literature. WIEGO Working Paper, Urban Policies, No: 16.* Cambridge. http://wiego.org/sites/wiego.org/files/publications/files/Samson_WIEGO_WP16.pdf

Satterthwaite, D., Huq, S., Pelling, M., Reid, H. and Romero Lankao, P. (2007) *Adapting to climate change in urban areas: the possibilities and constraints in low- and middle-income nations. Human Settlements Discussion Papers. Theme: Climate Change and Cities No: 1*. London: IIED. http://pubs.iied.org/pdfs/10549IIED.pdf

Scheinberg, A. (2012) *Informal sector integration and high performance recycling: evidence from 20 Cities. WIEGO Working Paper, Urban Policies, No: 23*. http://wiego.org/sites/wiego.org/files/publications/files/Scheinberg_WIEGO_WP23.pdf

Shack/Slum Dwellers International (SDI). (2014) *Home*. http://www.sdinet.org/

Sen, A. (1999) *Development as Freedom*. Oxford: Oxford University Press.

Sennett, R. 'The stupefying smart city', *LSE Cities*, 1 December 2002. http://lsecities.net/media/objects/articles/the-stupefying-smart-city/en-gb/

SETIS. (2014) *Strategic energy technologies information system.* http://setis.ec.europa.eu/set-plan-implementation/technology-roadmaps/european-initiative-smart-cities

de Sherbinin, A., Schiller, A. and Pulsipher, A. (2007) 'The vulnerability of global cities to climate hazards', *Environment and Urbanization, 19 (1)*, p39-64.

Smedley, T. 'The new smart city – from hi-tech sensors to social innovation', *The Guardian*, 26th November 2013. http://www.theguardian.com/sustainable-business/smart-cities-sensors-social-innovation

Soares, F. 'Tackling complex urban development challenges', *MercyCorps*, 24th April 2010. http://www.mercycorps.org/fernandosoares/blog/20569

de Soto, H. (2000) *The Mystery of Capital: Why capitalism triumphs in the West and fails everywhere else*. New York: Basic Books.

de Soto, H. (1989) *The Other Path: the invisible revolution in the Third World*. Perennial Publications.

de Souza, M. (2005) 'Urban Planning in an age of fear: the case of Rio de Janeiro', *International Development Planning Review, 27 (1)*, p1-20.

Stavropoulou, M. and Jones, N. (2013) *Off the balance sheet: the impact of the economic crisis on girls and young women*. London: Overseas Development Institute.

Stoker, G. (1998) 'Governance as theory: five propositions', *International Social Science Journal, 50 (155)*, p17-28.

Tacoli, C. (2012) *Urbanization, gender and urban poverty: paid work and unpaid carework in the city. Urbanization and Emerging Population Series, Working Paper 7*. London: Institute for Environment and Development/UNFPA.

*The Economist*, 26th May 2012, 'Violence in Karachi: city at war', http://www.economist.com/node/21555930

Turner, J. (1976) *Housing by People: Towards Autonomy in Building Environments.* London: Marion Boyars.

Turok, I. and McGranahan, G. (2013) 'Urbanization and economic growth: the arguments and evidence for Africa and Asia', *Environment and Urbanization*, *25 (2)*, p1-18.

UK Government. (2014) Private Infrastructure Development Group. https://www.gov.uk/private-infrastructure-development-group-pidg

United Nations (UN). (2014a) *Sustainable Development Knowledge Platform*. http://sustainabledevelopment.un.org/index.html

UN. (2014b) *We can end poverty: Millennium Development Goals and Beyond 2015*. http://www.un.org/millenniumgoals/poverty.shtml

UN. (2012) *The future we want*. http://www.un.org/disabilities/documents/rio20_outcome_document_complete.pdf

UN. (1992) *Agenda 21: United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3 to 14 June 1992*. Brazil. http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

United Nations Centre for Human Settlements (UNCHS). (1993) *The Urban Poor as Agents of Development: Community Action Planning in Sri Lanka*. Nairobi: UNCHS. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=1207

United Nations, Department of Economic and Social Affairs (UNDESA). (2014) *World Population Prospects, the 2012 Revision.* New York: UNDESA Population Division. http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf

UNDESA. (2013) *Sustainable Development Challenges, World Economic and Social Survey 2013*. New York: UNDESA. http://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=107&menu=920

UNDESA. (2012) *World Population Prospects, the 2012 Revision*. New York: UNDESA. http://esa.un.org/unpd/wpp/Excel-Data/population.htm

UNDESA. (2011) *World Urbanization Prospects, the 2011 Revision*: *Highlights*. New York: UNDESA. http://esa.un.org/unup/pdf/WUP2011_Highlights.pdf

UNDESA. (2007) *Indicators of sustainable development: Guidelines and Methodologies*. New York: UNDESA. http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf

United Nations Development Programme (UNDP). (2011a) *Sustainability and Equity: A Better Future for All, Human Development Report 2011*. New York: UNDP.

UNDP. (2011b) *Towards human resilience: sustaining MDG profess in an age of economic uncertainty*. New York: UNDP. http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/inclusive_development/towards_human_resiliencesustainingmdgprogressinanageofeconomicun/

United Nations Centre for Human Settlements, UN-Habitat (UNH). (2014a) *Habitat III. United Nations Conference on Housing and Sustainable Urban Development*. http://mirror.unhabitat.org/categories.asp?catid=831

UNH. (2014b) *Participatory Slum Upgrading Programme*. http://www.unhabitat.org/categories.asp?catid=592

UNH. (2013) *The State of the World's cities 2012/13, Prosperity of Cities*. London: Earthscan. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3387

UNH. (2011) *Cities and Climate Change: Global report on human settlements*. London/Washington, D. C.: Earthscan. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3086

UNH. (2009a) *Guide to Municipal Finance,* Nairobi: UN-Habitat (UNH), http://www.citiesalliance.org/sites/citiesalliance.org/files/UNH_Guide_Municipal_Finance.pdf

UNH. (2009b) *Planning Sustainable Cities: Global Report on Human Settlements 2009*. London/Sterling: Earthscan. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2831

UNH. (2009c) *State of the world's cities. Harmonious cities*. Nairobi. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2562

UNH. (2007) *State of the World's Cities 2006/7.* London: Earthscan. http://mirror.unhabitat.org/pmss/searchResults.aspx?sort=relevance&page=search&searchField=all&searchstring=state+of+the+World%27s+cities&x=0&y=0

UNH. (2003) *The Challenge of Slums: Global report on human settlements*. London: Earthscan. http://www.unhabitat.org/content.asp?typeid=19&catid=555&cid=5373

UPU. (2014) *Addressing the World Initiative*. Universal Postal Union. http://www.upu.int/en/activities/addressing/addressing-the-world-initiative.html

Watts, B. and Fitzpatrick, S. (2013) Rights-based approaches to addressing social injustice: a critique, unpublished report

World Bank (WB). (2014a) *Choosing and estimating a poverty line*. http://go.worldbank.org/AOCMSD1N30

WB. (2014b) *PPP Arrangements/Types of Public-Private Partnership Agreements*. http://ppp.worldbank.org/public-private-partnership/agreements

WB. (2014c) *Urban development*. http://www.worldbank.org/en/topic/urbandevelopment

WB. (2014d) *World Development Report*. http://wdronline.worldbank.org/worldbank/a/incomelevel

WB. (2011) *Conflict, Security and Development: World Development Report 2011*. Washington, D. C.

WB. (2009) *Systems of Cities – Harnessing Urbanisation for Growth and Poverty Alleviation*. http://www.worldbank.org/en/topic/urbandevelopment/publication/urban-local-government-strategy

WB. (2008) *Brazil: Toward a More Inclusive and Effective Participatory Budget in Porto Alegre. Report No. 40144-BR*. Brazil. http://internationalbudget.org/wp-content/uploads/Brazil-Toward-a-More-Inclusive-and-Effective-Participatory-Budget-in-Porto-Alegre1.pdf

WB. (2007) *India: synthesis study of Public Financial Management and Accountability in urban local bodies*. World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/7666/412040IN.pdf?sequence=1

WB. (1999) *Environmental assessment sourcebook and updates*. http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTENVASS/0,,contentMDK:20282864~pagePK:148956~piPK:216618~theSitePK:407988,00.html

World Commission on Environment and Development (WCED). (1987) *Our Common Future: Report of the World Commission on Environment and Development*. Oxford: Oxford University Press.

Webster C. (2002) 'Property rights and the public realm: gates, green belts, and Gemeinschaft', *Environment and Planning B: Planning and Design, 29 (3)*, p397-412.

WIEGO. (2014) *Informal economy monitoring study (IEMS)*. http://wiego.org/wiego/informal-economy-monitoring-study-iems

Yap, K-S. (2010) *Issues in low-income housing in developing countries of Asia*. FrancoAngeli.