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8 – URBAN AND SPATIAL PLANNING AND DESIGN

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ISSUE PAPER ON URBAN AND SPATIAL PLANNING AND DESIGN

KEY WORDS
compactness, connectivity, inclusivity, mixed-use, social mix, urban resilience, context, urban form, urban sprawl, systems of cities, participation, partnership, cultural heritage, green infrastructure, land value sharing, productivity, economies of agglomeration

MAIN CONCEPTS
1. Urban and territorial planning can be defined as a decision-making process aimed at realizing economic, social, cultural and environmental goals through the development of spatial visions, strategies and plans and the application of a set of policy principles, tools, institutional and participatory mechanisms and regulatory procedures.[1]
2. Spatial planning covers a large spectrum of scales ranging from neighbourhood, city/municipality, city-region/metropolis to national and supra-national/transboundary. It aims at facilitating and articulating political decisions and actions that will transform the physical and social space and affect the distribution and flows of people, goods and activities.
3. Urban design is the multi-disciplinary process of shaping the physical setting for life in cities, towns and villages; it involves the design of spaces, landscapes, building and group of buildings and the establishment of frameworks and processes that facilitate successful development. [2]
4. Urban Sprawl is the physical expansion of the city's built environment, which usually uses up surrounding rural areas. It is generally characterized by low-density settlements that are car dependent and often lack access to public infrastructure and services.[3]
5. Compactness is the characteristic of urban form (shape, density and land use) that reduces the overexploitation of natural resources and increase economies of agglomeration, with benefits for residents in terms of proximity. It is measured in terms of density of built area and population, and concentration of urban functions[4].
6. Connectivity strengthens the physical, social and virtual relationship between people, places and goods. At regional and national levels, connectivity links centres of production and consumption. At city level, connectivity is closely related to mobility and the permeability of an area. Street connectivity refers to the density of connections and nodes in a street network[5].
7. Inclusivity in planning recognizes that every person has the right to participate in shaping the built environment and to benefit from urban development. In terms of process, it promotes participation in planning and diversity in representation. In terms of outcome, it promotes everyone's access to services, jobs and opportunities and to city civic and political life.
8. Mixed-use development promotes a variety of compatible land uses and functions and provides a cross section of residential, commercial and community infrastructure in neighbourhood while reducing the demand for commuter travel.
9. Social mix is defined by the presence of residents from different backgrounds and income levels in the same neighbourhood and is dependent on the availability of different housing options in terms of price ranges, tenure type and typologies, and on the availability of diversity of jobs.

- Cities currently generate 80% of the global GDP while accommodating over 50% of the world population on 3% of its surface area, with the wealthiest 100 cities generating 35% of global GDP[6]. However, deficient planning and infrastructure can reduce business productivity by as much as 40 per cent[7].
- In developing countries an average of 6 out of 7 cities experienced a decline in density, while in higher income cities, a doubling of income per capita equated to a 40% decline in average density[8]. Cost of sprawl in the Unites States alone is estimated to cost USD400 billion per year mostly resulting from higher infrastructure, public services and transport costs.[9]
- Urban compactness and Greenhouse Gas Emissions have an inverse correlation. For each one percent of growth that occurs in the city-core instead of in the suburbs, approximately 5 million Mt of CO_2 per capita are avoided.[10]
- The insufficient provision of an adequate number of well-connected serviceable plots has contributed to the increase of informal urbanization, with over 61% of dwellers in Sub-Saharan Africa, 24% in Latin America and 30% in Asia informally occupying land, often in high-risk areas.[11]
- The discipline of urban and spatial planning is underrepresented in many developing areas, with 0.97 accredited planners per 100,000 people in some African countries and 0.23 in India. This is compared to 37.63 in the United Kingdom and 12.77 in the United States[12].
- In the past decade, urban and spatial planning gained international attention, with the endorsement of the principles of New Urban Planning at the third World Urban Forum in Vancouver in 2006 marking a key milestone.
- In 2015, the 'Global Risk Landscape' by the World Economic Forum (WEF) identified urban planning failure as a risk factor creating social, environmental and health challenges[13]. The significance of this risk is underlined by the fact that in 2012, more than 60% of the area projected to be urban in 2030 was yet to be built[14].
- Since 2009 the Global Assessment Report[15] and the Sendai Framework for Action (2015) highlight urban planning as a driver of resilience. Urban planning is also considered key factor of urban prosperity by local experts consulted in 2012[16] (see figure 2).
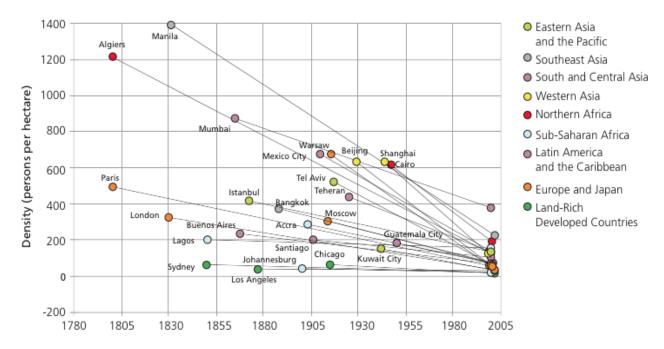
Figure 1: The general decline in built-up area densities in 25 representative cities, 1800-2000
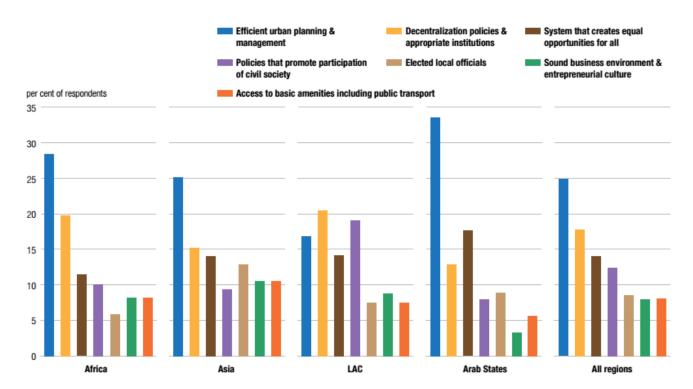Source: Lincoln Land Institute of Land Policy (2011). Making Room for a Planet of Cities

Figure 2: Factors underlying urban prosperity as perceived by local experts
Source: UN-Habitat (2012). State of World Cities.

There is growing global consensus that urban planning strategies and policies contribute to economic growth, social development and environmental sustainability and resilience. The recent debate on the Post-2015 Development Agenda emphasized the development of inclusive, safe, resilient and sustainable human settlements and urban planning was acknowledged as a positive means for shaping a sustainable and equitable future. This marks a significant shift from past perceptions and emphasis on 'enabling strategies' which were limiting the role of the public actor, while giving a predominant role to market forces. The Global Report on Human Settlements 2009 on 'Planning Sustainable Cities' provided a first global overview of the state of urban planning and identified the need for reinventing planning to adequately address 21st century challenges. In 2015 the Resolution 25/L5 of the UN-Habitat Governing Council approved the International Guidelines on Urban and Territorial Planning.

Urban strategies and policies that promote compactness and connectivity generally have produced more sustainable urban patterns and forms. By contrast, unplanned city extensions or decades of car-centric urban design have created sprawling city-regions. The sprawl of city peripheries has also being fuelled by rural-urban migration, unaffordable housing in city centres, and land administration rigidities. Sprawling areas reinforce unsustainable mobility patterns and congestion because they generally force people and goods to travel further distances[17]; reduced connectivity further compound this and reinforce segregation. Compact and connected urban form, on the other hand, has facilitated accessible, low carbon, human-centred environments, and can influence a community's health in the long term (e.g Seattle, USA, Brussels, Belgium). The importance of connectivity is exemplified by data on land allocated to streets: in a sample of cities in developing countries this averages 6-12%, as compared to cities in developed countries, which averages 29%[18]. The layout and quality of public space is also important, with lively multifunctional streets delivering greater urban benefits than monofunctional ones.

Greater emphasis on spatial aspects in planning and policy making improves coherence and integration of political and sectoral decisions. Piecemeal sectoral projects and stand-alone private developments have undermined long-term sustainable development objectives. This is particularly noticeable in secondary cities, where gaps between development plans, infrastructure plans and investment are jeopardizing the delivery of basic services and infrastructure. The harmonization and coordination of sectoral and spatial plans increases efficiency and synergies.

The economic benefits of planning are multiple, and derive from land value increases and improved productivity. Spatial planning contributes to generate increases of value which can be captured and shared as public revenue and for investment. Land value sharing requires close coordination between public and private actors and instruments such valuation, taxation and land readjustment (i.e. Germany, Japan, etc.). Planning that promotes mixed uses and appropriate densities is one of the most cost effective interventions to support private and public revenue. Implementation acts as a further multiplier of value in a virtuous cycle from which many cities have been able to benefit (New York, USA; Bogota, Colombia etc.). Implementation also improves the efficiency of the supply chain, reducing production and transaction costs. Direct and indirect benefits of urban planning on the economy are demonstrated by the productivity/GDP difference across cities with different urban patterns[19]. Additionally, planning can provide a predictable framework attractive for investments.

Spatial planning and urban design has had a profound impact on shaping more socially integrated cities and regions. In contrast, inadequate spatial planning and design and poor implementation have contributed to social segregation, entrenching inequalities and tensions. Cities' social fabric is being further fragmented by housing market segregation and the increase in gated communities. Planning focused on improved access across the city

to public spaces, revitalised public infrastructure, public transport and local economic opportunities can improve integration and inclusion, while making cities safer (Medellin, Colombia & Lyon, France). These strategies are particularly valuable for reintegrating informal settlers, migrants and refugees into cities (Swakopmund, Namibia). Effective urban planning has also contributed to the upgrading and prevention of informal and speculative developments. The provision of well located land and a large number of accessible plots (of appropriate size and price) is a strategy for ensuring social inclusion through affordable access to land and housing (Bahir Dar, Ethiopia; Ouagadougou, Burkina Faso), while mixed use and social mix also support better social integration The right to the city movement has been influential in promoting these issues on the international agenda.

Integration of plans across planning scales contributes to functional systems of cities that build on territorial complementarities, by creating networks in which economic flows and the provision of basic services can be adequately distributed between places, irrespective of population size (e.g. Germany and South Korea). Institutional arrangements need to go beyond administrative boundaries to respond to these new dynamics with specific attention given to metropolitan and regional institutions for land-use planning. The efficacy of such institutional setups is demonstrated by the growing number of supranational strategies that strengthen environmental resilience (e.g. The Great Lakes Region, USA-Canada) and the economic growth of targeted areas (e.g. European Union). The degree of integration and coherence achievable will depend on the capacity.

Local and context driven planning models are essential for local relevance and for the preservation of cultural heritage, values and identity of places. Ill-designed urban rehabilitation programmes, executed with insufficient knowledge of cultural values, pose an increasing threat to the conservation of historic areas and their qualities. This concerns the overall layout and the character of public spaces, the uses and climate responsiveness embedded in urban form, and the local knowhow on technologies and materials. By contract, well-founded interventions can positively influence the built form without detracting from the area's overall urban identity. Existing urban form, as well as local land use patterns and culture, provide reference for new extensions or urban transformations. The historic urban landscape approach can provide an innovative conceptual tool for a holistic and value-based territorial planning.

Urban and territorial planning has created more resilient cities and regions. Effective planning for resilience relies on understanding local and regional variation in vulnerability to hazard and climate impacts that expose assets and population to damage and destruction. Informal urban areas have been particularly vulnerable due to their poor infrastructure, precarious location and high densities. Consequently, by creating urban systems that have a greater capacity to absorb and recover from shocks, risk-informed planning can strengthen a community's social resilience (Norway). Expanding cities considering risk reduction criteria (e.g. building away from floodplains) and preserving ecosystem services upstream as protective measures for downstream settlements are two of the most effective planning strategies in this respect (Chengdu, China). "Planning with nature" also contributes to safer environments (Holland). See Issue paper 15 for more details.

Urbanization can deliver environmental benefits such as resource efficiency and green growth, as urban patterns and infrastructure choices made today lock in behaviour for the medium to long term. Overall, the increasing understanding of the city as an ecosystem has fostered important planning innovations. In this context, spatial planning plays a key role for the preservation of natural resources through promoting urban forms that are less resource intensive, protect agricultural land and preserving areas of ecological importance. Green infrastructure incorporated into the early stages of planning has restored the ecosystems in and around cities that provide many natural services cities depend upon by safeguarding biodiversity hotspots and improving landscape connectivity (Melbourne, Australia).

The capacity of local authorities is essential for creating and implementing plans that are responsive to a community's needs and the local context. Capacity gaps in human resources, institutions and system result in inadequate plans that are not locally owned or effectively implemented. Also, the understanding of local leaders and decision makers and other stakeholders of the role and value of urban planning for local development is critical to support planning efforts and enforcement. University curricula need to be adapted to reflect recent developments. Local planning and implementation capacity can be supported by the creation and maintenance of land records and base maps (Santa Fe, Brazil and Lichinga, Mozambique) and levying taxes on land value increases. Urban planning must also be linked to central governments' budgeting and resource allocation processes. Adjusting the requirements of the planning system to match delivery capacity can also address capacity gaps effectively (Cape Town, South Africa). In many countries, the decentralization of planning functions still needs to progress in many countries. The institutional location and level of independence of planning agencies influences continuity and effectiveness (i.e. Curitiba, Brazil or France).

Public participation has contributed to improved planning outcomes by addressing the distinct needs of various groups such as women, youth and indigenous communities. Planning can also provide a level playing field for stakeholders and strengthens transparency and accountability. Information and communication of planning content and processes is critical to support such engagement and participation. In recent years, particularly in Europe, the concept of 'right to the plan' has been discussed, recognizing its importance for individuals to be able to fully engage with the development process in a city.

The formation of partnerships between public, private, and civil society can support the urban development process. Collaborative engagement among actors and the longer-term commitment this generates is important to sustain policies and decisions over policy cycles. Also, planning mechanisms that have engaged the private sector and other stakeholders within clear regulatory frameworks and responsibilities have delivered a stronger link between planning and implementation.

Urban and spatial plans need to be fit-for-purpose. In view of the all the above, effective and implementable urban plans are anchored in design choices, regulations and financial mechanisms that leverage economies of agglomeration. City development strategies supported by such elements translate vision into action. and can achieve a balance between public and private interests while ensuring broader participation in urban development. Legislative frameworks need to be sufficiently simple, leverage informal and formal development dynamics, and provide flexibility for developers within set responsibilities (South Africa). Although many countries are establishing or reviewing their planning legislation and regulations, obsolete and inadequate planning legislation is still in place in many contexts and complex planning systems and unclear responsibilities are major cause of inadequate plans and low implementation. Many cities still need to secure land tenure and do not have mechanisms to control buildability rights to manage urban development. Countries with deliberate policies at the national level and adequate governance mechanisms in place have generally had the most successfully planned and managed cities (i.e. Singapore, Germany).

Emerging, complex urban dynamics require advanced knowledge and simplified planning tools. ICT and satellite imagery are easy and affordable means of accessing spatial data that have enabled broader participation in knowledge creation and information exchange. Still, knowledge gaps exist with regards to metropolization and secondary cities. In many contexts, planning instruments have benefitted from simplification and increased transparency, and have been improved by, for instance, prioritizing guiding rather than prescriptive regulations (London). Extension, transformation and regulation approaches are required. For instance, planned city extensions implemented in advance of population growth, at an adequate scale, in phases and in contiguity with existing urban fabric have beneficial impacts on affordability and slum prevention. In existing area, the regulation of

development is needed, while urban renewal and redevelopment projects also offer opportunities to improve urban public space, connectivity, density and mixity. Guidelines and frameworks (such as the International Guidelines on Urban and Territorial Planning) are a useful resource that can act as a compass for improving global policies, plans and designs. Moving away from a prescriptive, legislative approach, to being a source of inspiration, they can be readily adapted to local contexts.

KEY DRIVERS FOR ACTION

The dissemination and implementation of the International Guidelines on Urban and Territorial Planning can provide global reference for local and national initiatives to improve planning and design.

Systems of cities are dynamic networks, whose influence extends beyond cities' individual administrative boundaries.
- Formulate and implement a national urban and territorial policy framework that reasserts the spatial dimension in policy-making;
- Define, implement and monitor decentralization policies and strengthen the role, responsibilities, planning capacities and resources of local authorities;
- Promote system of cities and urban corridors through clustering of industries, services and institutions.
- Promote inter-municipal cooperation and multi-level governance systems, supported by appropriate regulatory framework and financial incentives, particularly for metropolitan and regional planning;
- Consider ecosystem and ecological dynamics as important spatial elements and integrate this perspective in planning at different scales.

Spatial planning is most effective as a participatory, flexible and continuous process rather than a rigid blueprint.
- Engage in dynamic partnerships, including with the private sector, to ensure that urban and territorial planning coordinates the spatial location and distribution of activities and services;
- Promote strategic and iterative planning processes that foster stakeholder engagement to improve implementation;
- Create accessible, user-friendly and comprehensible urban and territorial plans and policies which support planning as a pre-eminently public function
- Address urban growth proactively by supporting secondary cities and developing planned city extensions at scale, connected to the city fabric and with adequate public space.
- Communicate clearly and share information on plans as part of basic right to information
- Address urban transformation and inadequate urban patters proactively and develop planned city infills to retrofit existing urban areas.

The process of urban planning should be inclusive and equitable with benefits shared by all.
- Engage diverse segments of the population, particularly the poor, women, youth and marginalized groups, in urban and territorial planning.
- Develop and implement policies and regulations that encourage social integration and mixed land use.
- Facilitate land tenure security and access to land and property rights, as well as access to finance for low-income households.
- Upgrade informal settlement and integrate them in the city through connectivity, location of services and facilities and by provision of opportunities.

Effective urban planning integrates a variety of dimensions, including spatial, institutional and financial dimensions.

- Ensure that land-use plans, the development of basic services and infrastructure planning are geographically connected and implementation is coordinated.
- Identify, safeguard and develop areas of cultural and natural heritage in urban and territorial planning processes.
- Combine planning and design with financial mechanisms that are supported by appropriate rules and regulations.
- Plan for disaster and climate resilience in existing cities, in city extensions and in urban transformations from the outset, in line with the Sendai Framework for Disaster Reduction.

Good urban design contributes to the liveability, sustainability, and economic potential of a city.
- Plan in advance of urban population growth through the layout of adequate extension areas to guide urban growth, particularly in countries with rapid on going urbanization processes to ensure supply of serviceable plots commensurate to the scale of demand (Planned City Extensions).
- Promote compact cities and control urban sprawl by developing progressive and integrated densification strategies and limit where appropriate the footprint of urban areas to mitigate climate change and enable the affordable provision of basic services (Planned City Infills)
- Provide for sufficient amount of public space with efficient street network as the driver for a vibrant community and to encourage non-motorized and public transport, creating safe, comfortable and efficient public space.
- Ensure that areas have mixed use of functions and social mix and limit zoning.

PLATFORMS AND PROJECTS

International Guidelines on Urban and Territorial planning (IG-UTP).
http://unhabitat.org/development-of-international-guidelines-on-urban-and-territorial-planning/

National Urban Policy Platform (http://unhabitat.org/books/the-evolution-of-national-urbanpolicies/)

Urban Planning and Design Lab (UPD Lab), UN-Habitat

Achieving Sustainable Urban Development Programme (ASUD), http://unhabitat.org/tag/asud

City Prosperity Initiative (CPI), http://unhabitat.org/city-prosperity-initiative/

City Alliance, www.citiesalliance.org

Wold Bank Institute Urban Program, http://wbi.worldbank.org/wbi/about/topics/urban

World Disaster Reduction Campaign on "Making cities resilient: My city is getting ready"
http://www.unisdr.org/campaign/resilientcities/

UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972), http://whc.unesco.org/en/convention/

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