6. URBANIZING TO INDUSTRIALIZE: POLICY RESPONSES

Africa is undergoing a rapid urban transition with considerable implications for industrialization, a key imperative for inclusive structural transformation. Urbanization and industrialization are closely linked elsewhere, but in Africa these links are weak or absent. And where they exist, have often developed organically rather than through deliberate policy responses, even though the importance of coordinating industrial and urban development was recognized by African policymakers as far back as the 1960s (UNECA, 1962). The challenge for Africa is thus to transform its economic growth into sustained and inclusive development by harnessing urbanization to promote economic diversification, with a special focus on industrialization that creates jobs, reduces inequality and poverty, and enhances access to basic services.

This chapter summarizes some of the key issues and offers pointers for cross-cutting policies to reconnect the traditionally separate domains of urban and industrial development. It should be useful for policymakers, researchers, civil society actors and others.

Policies should expressly target subsectors of urban-driven domestic and regional demand, fostering value addition and job creation by developing domestic manufacturing and services.

6.1 KEY ISSUES AND RESPONSES

Africa's rapid urbanization is a powerful asset for structural transformation—*if* it is harnessed by a strategic cross-cutting policy framework. Africa is the fastest urbanizing region after Asia. In less than two decades, more than half the region's population will live in urban areas and the total urban population will have doubled, presenting opportunities and challenges for managing urbanization. Yet despite the importance of cities for industrial development and vice versa, the planning processes and institutional frameworks are disjointed. Policies are often formulated and implemented in "silos," with little analysis of the impact of urban trends and economic geography on industrialization in national development plans.

Policies should expressly target subsectors of urban-driven domestic and regional demand, fostering value addition and job creation by developing domestic manufacturing and services. They should also stimulate agricultural productivity—a key factor in structural transformation. In turn, industrial development should boost urban and rural economies through its impact on employment, income and fiscal revenues, as well as demand for local inputs and agricultural raw materials. To leverage the opportunities created by urban demand, a host of strategic actions should support activities at all stages of targeted value chains in agriculture, manufacturing and services, such as building skills, improving infrastructure, expanding access to business services and promoting spatial development policies.

Also critical is building a national urban system to accelerate industrial development. Increasing industrial production and domestic, regional and global trade requires a system of cities that are functionally and spatially connected. A diverse system of cities is important to provide subsectors with locational options that meet their preferences. Competitive secondary cities can catalyse industrial development by linking manufacturing and urban markets to rural areas and regions with agricultural and natural resource potential.

But many African cities have excessive primacy—too large a primary city, too small secondary cities—where big cities face diseconomies of scale and secondary cities are too small or poorly serviced to offer competitive spatial advantages to businesses and industrial firms. A national system of cities of different sizes and complementary functions, along with improved transport, logistics and connectivity, is essential to overcome this structural challenge and support value chains, including those operating across borders.

Undermining the potential benefits of agglomeration economies in cities are factors tied to institutions, infrastructure and urban form. African cities are becoming less dense and more segregated. They lack basic infrastructure and services, and they are shackled by poor mobility. This makes African cities expensive[1] and puts African firms at an economic disadvantage. Many cities feature disproportionately high costs of labour, land and transport.

Increasing industrial production and domestic, regional and global trade requires a system of cities that are functionally and spatially connected.

In short, policymakers need to leverage urban drivers by maximizing urban productivity enablers and addressing barriers through a coherent set of sound urban development policies, planning and investments aligned to industrial development goals and priorities.

6.2 INTEGRATING URBAN AND INDUSTRIAL POLICY

Africa's unguided urban expansion risks perpetuating non-inclusive and unsustainable growth (chapters 1 and 2). Given the role of national development planning in setting targets for economically, environmentally and socially sustainable outcomes and inclusive growth in line with global and continental commitments, it is important to factor in cities' potential for achieving those targets. Cross-cutting national development planning will permit strategic interventions that benefit both sides—urban *and* industrial. Sectoral policies alone cannot link the two sides, or shape the long-term visions for growth and structural transformation. Connecting both sides requires addressing issues beyond the remit of sectoral policies and separate parts of government. For example, regional infrastructure investment priorities are often set nationally, not by sector, but they still shape urban and industrial outcomes.

NATIONAL DEVELOPMENT PLANNING FRAMEWORKS

Under the umbrella of national development planning, policymakers must make hard choices for urban and industrial development. Since failures to prioritize investment and resources will dilute actions that achieve little success anyway, and targeting is needed to simultaneously promote urban and industrial productivity. For example, investments and public resources directed at industrial subsectors and their value chains, especially those that can best achieve the development priorities identified in national development plans, should be prioritized. Labour-intensive manufacturing should be a key component owing to its unique qualities to absorb a large, semi-skilled labour force while setting the foundations for productivity convergence and

BOX 6.1 FOLDING URBAN DEVELOPMENT INTO NATIONAL DEVELOPMENT PLANS: RWANDA AND SOUTH AFRICA

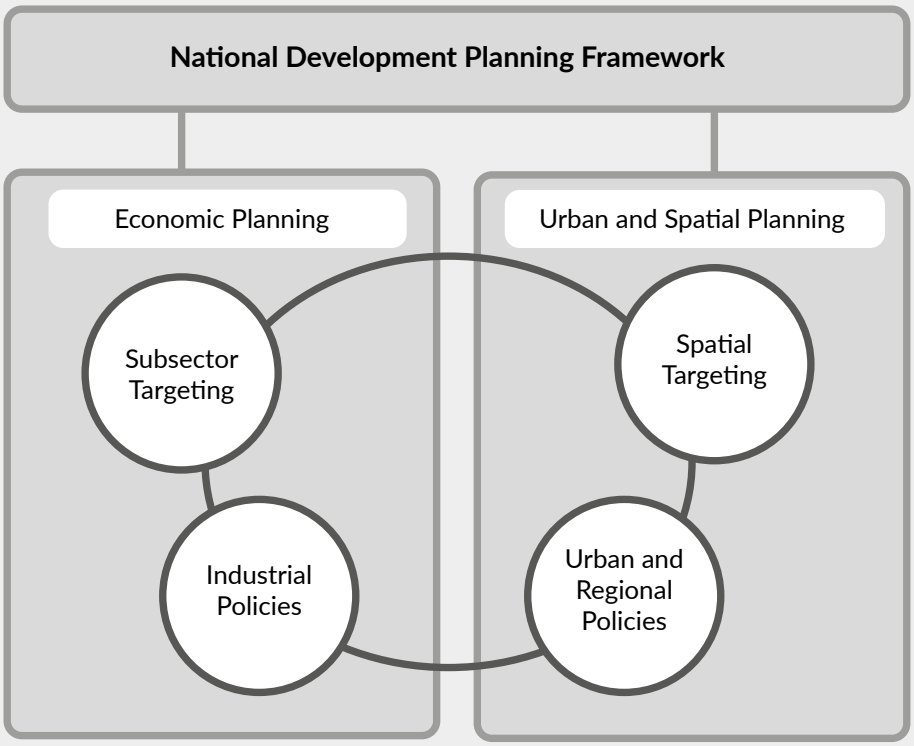
Rwanda's Vision 2020 considers urbanization a key component for taking the country to middle-income country status, with a targeted 30 per cent urban population share achieved through planned development of Kigali and six secondary cities (Ministry of Finance and Economic Planning, 2000).

Similarly, the Economic Development and Poverty Reduction Strategy states that as part of the priorities for economic transformation, the six secondary cities will be developed as growth poles and hubs of non-agricultural activity. Strategic economic projects and improved connectivity to other towns and rural areas are planned, as is upgraded hard and soft infrastructure, but the strategy continues to underline the critical role of Kigali as a subregional hub. Green urbanization will be a pillar of its green economy approach. The strategy also makes explicit the links between structural transformation and urbanization (Ministry of Finance and Economic Planning, 2013).

South Africa's 2030 National Development Plan considers urban growth an opportunity. As part of its analysis of mega-trends and the global economy, it looks at the impact of the growing middle class on consumption and business opportunities. It also notes that "urbanization not only reduces the number of people engaged in small-scale agriculture; it also facilitates economic diversification. The combined effects of lower dependency ratios and greater urbanization ought to have a further significant impact on the productivity of the labour force" (p. 86).

The plan mentions the expected rise in discretionary income related to urban trends and the positive impacts of consumer spending on banks, telecommunications firms and manufacturers of fast-moving consumer goods, but finds that cities are not productive enough or generating enough jobs, partly because of their inability to retain local spending power or attract productive investment, and partly because of manufacturing's poor performance. The plan lays out a spatial development approach that creates "functionally integrated, balanced and vibrant urban settlements" (National Planning Commission, n.d.).

FIGURE 6.1 Connecting policies for national, industrial and urban development



Source: Authors

broad-based growth (see chapter 3). Such targeting should also consider focusing on women in training and hiring, to achieve gender parity.

Many African states have recently re-recognized the need for national development plans, including long-term visions and the means of achieving them. As the overarching framework, these plans are ideal for linking targets for urbanizing and industrializing. Yet the plans' prognoses for urban development differ starkly. Most plans have a limited approach, focusing on housing or fragmenting responsibility to unconnected agencies, and few consider urbanization in broader growth targets. They lack a spatial angle, too (just as urban plans omit an economic angle), though some countries are ahead of others (box 6.1).

Once the opportunities arising from urbanization for industrialization and from industrialization for urbanization are appreciated, steps towards an integrated policy should encompass subsector targeting, industrial policies, spatial targeting and urban/regional policies under an overall framework of national development planning (figure 6.1).

SUBSECTOR TARGETING IN INDUSTRIAL POLICIES

Investments and public resources will have more impact if they lift certain industrial subsectors and their value chains to achieve the development goals in the national development plan.

Investments and public resources will have more impact if they lift certain industrial subsectors and their value chains to achieve the development goals in the national development plan.

PRIORITIZE LABOUR-INTENSIVE MANUFACTURING

Labour-intensive manufacturing should be a key component because of the jobs it can generate (see chapter 3). Conversely, policies that primarily support high-growth subsectors but generate few jobs—directly or through their multiplier effect—will not contribute to structural transformation and will fail to exploit the demographic dividend or end poverty. This is a particular challenge for countries reliant on natural resources. They should use income from natural resources to invest in well-functioning urban systems as a foundation for stable long-term economic growth, as well as lay emphasis on policies and investments for value added and labour-intensive linkages.

FOCUS ON EXISTING COMPARATIVE ADVANTAGES BASED ON RESOURCE ENDOWMENTS AND GEOGRAPHY

Targeting specific subsectors for industrialization and managing the trade-offs between investment strategies should consider the comparative advantages of these subsectors. Countries may have these advantages due to a mix of their natural endowments, growth trajectory, geographical location and regional dynamics. It is important to consider the industrial subsectors where an economy can compete based on the resources available, although there may be benefits in entering higher-productivity subsectors where it lacks comparative advantage, which may be acquired gradually (Redding, 1999).

Broadening and deepening value chains linked to natural resource endowments is central to industrial policy in Africa. The importance of commodity-based industrialization as a means of diversifying African economies over the long term while building competitive advantages in resource-rich countries has been underscored in previous reports (*ERA 2014*). Industrial policy should target subsectors that can respond to growing and shifting patterns of urban consumption, taking into account a country's agricultural potential, natural resource endowments and related value chains.

Geographical comparative advantages may have been shaped by proximity and connectedness to continental and non-African markets, such as Tangier's automotive industry, which thrives in part on its proximity to European markets. Africa's trade presents major opportunities, with intra-African exports representing a more diversified range of goods and services than exports outside the continent.

Geographical advantages at subregional level within Africa should be strengthened by Africa's regional economic communities and the proposed Continental Free Trade Area. For example, although Rwanda is a landlocked country with a small domestic market, it is a leader in tradeable services that could be better linked to subregional industries, and its agro-industry could better serve subregional markets if logistics and ports were better.

Based on natural resource endowments, spatial targeting of industrial subsectors should be coordinated with urban development. Subsectors most dependent on natural resources or on relatively immobile factors of production are likely to concentrate on locations endowed with them. These preferences can be guided and supported, linked to the vision for urbanization and the national urban system.

SUPPORT EXISTING SUBSECTORS

Existing manufacturing subsectors should not be ignored, particularly those that emerged organically in response to demand. Such subsectors can often grow in employment and global competitiveness with the right policy support, particularly in informal manufacturing where small enterprises are held back

by their inability to access key factors of production (land, electricity, finance or skills).

Drawing on industry-wide and firm-level data, it will be vital to identify leading, lagging, emerging and declining subsectors for targeting. Policymakers may also consider the country's position within product spaces[2] to steer it more to a set of manufactured goods that builds skills, capacities and linkages with other similar goods, opening opportunities for diversifying into similar products.

RESPOND TO URBAN DEMAND THROUGH DOMESTIC INDUSTRY

Africa's growing demand and consumer class signal market opportunities for industrial development generally and some subsectors more specifically, including the following four.

Urban housing. African cities face severe housing backlogs. Governments can leverage market-based and social housing to develop the domestic construction and building material industries, including through procurement and local content policies that support the development of firms and suppliers along the value chain. Procurement policies should be paired with support to firms and workers to meet the required standards. Programmes that focus on small and medium-size enterprises, women and youth are well placed to broaden the job-creation benefits of the construction boom closely associated with urbanization across Africa..

Urban infrastructure. African cities face wide infrastructure gaps hurting the spatial structure of cities and undermining their competitiveness. Efficient services and infrastructure are urgently needed to support industrial productivity, but investment should be planned to meet industry needs, generate jobs and develop local construction capacity. Infrastructure investment should also be tied to domestic industry, in some cases through procurement policies favouring local sourcing. However, domestic supply chains will no doubt need support to meet infrastructure needs and standards. Low-tech, labour-intensive infrastructure projects have favourable impacts on local job creation, as seen in Ethiopia's cobblestone road-paving projects. Urban areas also offer opportunities to green Africa's infrastructure and related industries. Urban energy consumption, construction, transport and waste management are all areas with potential for greening and for employment creation (UNECA, 2016).

Africa's growing demand and consumer class signal market opportunities for general industrial development and for some specific urban subsectors, including housing, infrastructure, food and agricultural value chains and business services.

Urban food and agricultural value chains. Spurred by rapid urbanization, urban food demand is rising and shifting to processed food. This presents opportunities for agricultural modernization through agro-processing and for a range of manufacturing and associated enterprises along the food value chain—from farming to transport and logistics, to retail. Agro-industrialization is critical in Africa where subsistence agriculture remains the backbone of most economies. Identifying value-adding opportunities along the chain has a strong spatial element, however: clusters and locations of comparative advantage have to be spatially mapped and supported with hard and soft infrastructure. Cities and other locations along the supply chain have to be connected to ensure efficient flows of production factors, intermediate inputs and final products to the market. The role of intermediate towns in linking urban demand with agro-industrialization is particularly important.

Large food retailers tend to have the most power in processed food value chains, presenting an opportunity to draw on their power for developing supply chains. South Africa's Massmart Supplier Development Fund is an example.

Urban-based business services. Business services tend to cluster in cities, where they can access pools of skilled labour and knowledge and provide a better business environment and capacity if linked to industrial needs. Urban-based tradeable services, such as finance, insurance, real estate, accounting, information and communications technology (ICT) and other business services, have a dual role in linking urbanization and economic growth. They are vital to the productivity of industry, particularly

TABLE 6.1 Costs and benefits of spatial targeting

INVESTMENTS WILL LIKELY HAVE HIGHER BENEFITS IN A CITY THAT...	INVESTMENTS WILL LIKELY HAVE HIGHER COSTS IN A CITY THAT...
• Is a preferential location for industries targeted by the national industrial policy • Has a higher population (higher number of people to benefit from investments) • Has a higher number of existing economic enterprises • Is already at or close to a size threshold where the city will become a competitive location for firms • Is well connected to strategic national, regional and international networks	• Lags behind in basic infrastructure • Is isolated from existing national, regional and international networks • Lacks subnational capacity to manage infrastructure investment, operation and maintenance • Is unappealing to targeted industries

BOX 6.2 A MASTER SPATIAL PLAN IN SOUTH AFRICA

Spatial targeting is a key principle in a Master Spatial Plan for Human Settlement in South Africa. In line with the imperative of efficiency set out in the National Development Plan 2030, the human settlements department is requested to "direct investment in places that optimise existing capacity of our settlements (introvert) before engaging in fiscally onerous (expansive) settlement approaches, by acknowledging existing localized spatial targeted areas for investment" (Department of Human Settlements, 2014).

manufacturing and construction. And their job expansion is a pathway to structural transformation and economic growth. Inclusive financing to enable small and medium-size enterprises in startup and operation should be part of any strategy.

Some approaches have already stimulated such services. Rwanda's policy to support ICT and financial services has been very successful, with major benefits to the business environment and related investments in technology, while Sudan has supported the Islamic-compliant finance subsector, including microfinance.

The opportunities and challenges presented by urban growth need to be explicitly considered in industrial policies, since successful industrial policies hinge on a host of conditions and spatial factors.

SPATIAL CONSIDERATIONS IN INDUSTRIAL POLICIES

The opportunities and challenges presented by urban growth need to be explicitly considered in industrial policies, which rarely do so. Successful industrial policies hinge on host of conditions and spatial factors. They seek to outline what to produce and where to produce. They should be tailored to the spatial needs of targeted subsectors and firms, and different types of cities should be developed to match different needs of industries. Spatial targeting of investments (below) and developing a functionally complementary system of cities and towns must be embedded in industrial and urban policies.

Industrial performance can be enhanced (or impaired) by the efficiency (or inefficiency) of cities and urban regions. Poorly functioning land markets, backlogs in basic urban infrastructure, transport and energy, and shortages of skilled labour in cities can constrain industrial development.

Industrial policymakers—not just urban planners—should recognize that the spatial layout of cities impinges on industrial productivity. Urban land use policies should therefore provide for future industrial growth in a framework compatible with competing development needs. And they should improve access to land for existing firms and new startups and facilitate clustering for firms to reap agglomeration economies. Again, mobility is vital, within and among cities, urban regions and regional corridors, while housing supply and affordability feed back into the labour market, affecting industry's access to the labour pool.

Policies and investments in technical and vocational education and training (TVET) can work when they narrow priority industrial subsector skill deficits—and thus demanding the attention of urban and industrial policymakers as well as private operators.

SPATIAL TARGETING FOR A NATIONAL URBAN SYSTEM

Spatial targeting determines which industries should go where and which cities and urban regions should receive priority in infrastructure investments. When planning is coordinated, industrial projects and infrastructure investments move in tandem to priority cities and urban regions. The corollary is that policymakers need to consider the probably too-high cost of investing in lagging places, at least initially, and seek other ways to promote balanced national development. Spatial targeting should evaluate the benefits and costs for different cities (table 6.1 and box 6.2).

Targeted cities should be supported to work with prospective investors in identifying and meeting needs of industrial subsectors, and given the capacity to plan for future growth, secure land for future development and infrastructure and invest in housing and basic services. Where necessary, support should be given to relocating firms and workers.

Modern industrial development requires a national urban system with spatial options meeting diverse industrial needs. The location decisions of major economic investments shape the economic geography of the country, and the evolving national urban system of cities, metropolitan regions and development areas guide industrial investment decisions. Therefore industrial investments (such as special economic zones) and major investments in the national urban system—road networks, transport corridors, new cities, growth centres and improvement projects—should be carefully matched to long-term policy goals and levers of the national urban economic geography, considering the following points.

Large cities offer a range of specialized services and facilitate innovation, competition and entrepreneurship, making them suitable for business startups and incubation, hence the need for governments to foster the continued competitiveness of large cities for the long term.

SUPPORT A MORE BALANCED NATIONAL URBAN SYSTEM

The prevalence of urban primacy in Africa constrains industrial firms. But despite the problems associated with unbalanced top-heavy urban systems, policies to rebalance them and bolster the role of secondary cities should proceed cautiously, as part of the long-term development process. They should avoid two major errors: neglecting the prime city (this would reduce economy-wide performance), and attempting to shift industry to lagging areas with poor locational advantages (this would hurt industry's performance).

Large cities offer a range of specialized services and facilitate innovation, competition and entrepreneurship, making them suitable for business startups and incubation. Firms may prefer starting up in big cities and relocating to secondary cities as their business matures or feel disadvantaged by the increasing costs of land, labour and congestion. Governments should therefore foster the continued competitiveness of large cities for the long term,[3] by investing in physical infrastructure and in areas that support innovation and knowledge transfers. Removing barriers and maximizing investments in these cities when countries are relatively poor can conserve scarce physical capital, allowing more

people to benefit at less cost in populated areas than would be the case many years down the road.

Strategies to support smaller cities should focus on unique areas of comparative advantage. Small cities or market towns close to resources or agricultural potential, and with good links to other cities, can flourish on the back of specialized services and processing industries fostering urban–rural linkage. In selecting secondary-city growth poles, cities to prioritize are those already close to a competitiveness threshold in size, infrastructure and economic activity.

Particularly important is strengthening transport and logistics connections between cities, especially those with the prime city and those that support associated value chains. Such connectivity, if done with a strategic spatial vision, will in the long run create an urban system for secondary cities to begin to reveal their dynamism and complement the larger cities.

The creation of new cities is one policy often intended to overcome the shortfalls of existing urban areas. However, new cities usually require massive investments, may not reach competitiveness thresholds and may be dogged by the institutional issues of current cities.

CATER TO SPATIAL NEEDS OF TARGETED SUBSECTORS

The priorities of spatial targeting should be guided by targeted subsectors' locational needs and preferences based on their reliance on knowledge, technology, labour, intermediate inputs and access to final markets. It is thus important that industrial planners review closely natural-location characteristics, as well as the powerful forces of infrastructure and agglomeration. Firms differ in their location preference, with some clustering with unrelated firms in diverse subsectors (urbanization economies) and others clustering with related firms in their own subsector (localization economies).

Access to factors of production, markets and infrastructure determines whether a city (or an area within a city) will benefit industrial firms.

Some general principles of these needs can be gleaned from experience and empirical studies.

- Newly emerging firms, innovation-based subsectors and knowledge-intensive subsectors tend to rely on large, diverse cities.
- Established industrial firms may decentralize to the urban periphery or secondary cities where the costs of land and labour are lower.
- Smaller specialized cities can offer the localization benefits of clustering without the costs of large diverse cities.
- Labour-intensive subsectors balance the need to access a large supply of labour with the costs of a city, tending to locate in medium-size cities.
- Input-intensive subsectors, such as wood, tend to locate near the source of inputs.
- Manufacturing firms with higher value added or end products show a preference for market access in the form of a large urban population or proximity to a port or highway.

Access to factors of production, markets and infrastructure determines whether a city (or area within a city) will benefit industrial firms, and with the concept of accessbased on proximity and mobility, land use and transport become twin components in determining whether a given firm can access labour, inputs, markets and knowledge and the associated productivity-enhancing advantages of agglomeration economies.

LEVERAGE SPECIAL ECONOMIC ZONES IN A CONNECTED GEOGRAPHICAL CONTEXT

Special economic zones (SEZs) offer one option for spatially connecting industry with the benefits of agglomeration economies in pockets of well-serviced land, and they have the potential to improve the business environment, particularly access to infrastructure. Industrial land-use policymakers, instead of planning SEZs in isolation from the productive advantages of cities, should aim to achieve SEZs' access to the following: a large pool of labour; same-subsector clusters and their potential for knowledge transfer; support services; forward and backward linkages (including to informal enterprises); and the purchasing power of large urban markets, especially when producing for domestic consumption. SEZs' locational advantages should be strong enough to enable firms to compete in regional and, eventually, global markets.

Industrial targets should be a foundation and guiding force for national, urban and spatial planning policies, or urban development plans.

CONSIDER THE GEOGRAPHY OF COMPARATIVE ADVANTAGES, INCLUDING NATURAL RESOURCES AND NETWORKS

Spatially targeted strategies should factor in the comparative advantages offered by urban locations for industrial development, because advantages differ. For instance, some places may allow better access to natural resource endowments and agricultural products and be a natural fit for beneficiation (improving economic value) or agro-processing. Others may offer proximity to markets of different scale (national, regional and international), providing opportunities for producing goods and services for those markets. Still others may already be specialized cities that could improve the productivity of subsectors through investments in TVET or infrastructure. Some urban locations may offer labour at the required scale and be attractive for labour-intensive activity.

SUPPORT COMPLEMENTARITY AMONG CITIES IN THE NATIONAL URBAN SYSTEM

The national urban system should optimize the complementary functions of different cities, responding to the different needs of industrial firms and preventing secondary cities from competing with each other in a narrow range of products. For example, even if industrial policy targets maize, not every secondary city can (or even should) specialize in maize processing; some cities may better suited for clusters in fertilizer, finance or poultry, all with links to the maize value chain. While large capital and prime cities continue to see a concentration of economic activity in most African countries, smaller intermediate cities are vital for supporting larger cities and rural economies. And cities differ by function: some have more diverse economies, while others are more specialized.

A well-connected and balanced national system allows for complementarity between cities whose structure, size and function varies, primarily through transport but also through economic links. If the national system of cities is to facilitate industrial development, it should be better connected to regional and international economies.

URBAN POLICIES

Few national urban and spatial planning policies, or urban development plans, are attuned to the needs of industrial development. Yet industrial targets should be a foundation and guiding force for these policies. Similarly, the economic and industrial development objectives of urban development plans are often poorly articulated or lack a strong spatial economic basis.

A wealth of policy knowledge shows how to respond to emerging urban development. For example, UN-Habitat's three-pronged approach (prioritizing and coordinating urban planning and design, urban legislative and regulatory frameworks, and urban finance) is a valuable framework. It is premised on the argument that urban planning needs to be supported by targeted regulations and implementable financial plans. In Africa, however, where sustained economic growth, industrial development and job creation are major concerns, it is important to explicitly link such regulations and plans (or urban development generally) to national development targets and industrial priorities.

Planners should design cities to maximize their role in structural transformation, prioritizing urban spatial factors critical to economic development. They could do this by locating targeted subsectors and their value chains in cities and urban regions where present and future economic advantages arising from spatial economic forces are likely to be maximized. They should also improve the fundamentals of urban economic geography, especially in key primary and secondary cities, to support all economic activities in those cities.

BETTER MANAGE EMERGING URBAN FORM

African cities are growing, and many are becoming less compact, less connected and more segregated. The urban economic advantage is being undermined by too little density, by residential segregation and by the artificial separation of land uses, sometimes the result of colonial zoning and building codes. Peripheral development often proceeds without planning for a connected street grid and transport corridors. Breakthroughs in ICT technology may have improved connectedness on some levels, but do not supersede the economic benefits of urban proximity and mobility.[4]

To help cities grow in connected and compact ways, governments should remove zoning and restrictions on density, apart from those for "bad neighbour" industries which adversely impact their immediate surroundings through pollution, noise, smell etc.. They should also integrate social housing into the urban fabric instead of allowing it to be clustered in isolated and peripheral enclaves. And they need to plan and protect a connected grid of streets in advance of unplanned growth, including informal growth and expansion by private developers.

Such foresightful planning can avert huge outlays over the long term, because retrofitting poorly planned urban areas, particularly adding missing infrastructure, comes at a huge cost. There are proven strategies for redevelopment, including land readjustment, although they can be time consuming and socially challenging.

Urban form cannot be economically efficient if land and property markets are dysfunctional.

IMPROVE LAND AND PROPERTY MARKETS

Urban form cannot be economically efficient if land and property markets are dysfunctional. Their poor functioning undercuts economies of agglomeration, the mortgage finance industry and subnational land-based revenue streams.

The first step in upgrading land management is to improve and regularize institutions supporting these markets, including a land registration system that is digital, complete and easily updatable. A related issue is to increase transparency to limit corruption. Information on land should be made publicly accessible with a neutral monitoring agency. The rights of women to property need to be protected.

Improved mobility in urban areas is key for cities to support industrial development, notably, mass transit and non-motorized (pedestrian and cycling) transport infrastructure connecting industrial firms and their workers.

INVEST IN MULTI-MODAL MOBILITY

Improved mobility in urban areas is key for cities to support industrial development, notably mass transit and non-motorized (pedestrian and cycling) transport infrastructure connecting industrial firms and their workers, given that the majority of Africa's urban residents rely on such transit. However, many governments are going in the opposite direction, by subsidizing private car use in cities through expensive car-oriented infrastructure and fuel subsidies, adding to traffic congestion. Many also invest in highways and ring roads, without ensuring urban-street and mass-transit connectivity, constraining cities' functioning.

The focus should be on connecting existing urban areas before building ring roads. (Ring roads usually make things worse in the long run by inducing travel demand.) Governments should plan in advance for adequate street space in a connected grid, including road reserves for later paving or widening.[5] Some solutions are underused in African cities, such as urban rail transit, bus rapid transit, truck-only lanes, park and ride, congestion pricing and betterment levies. But good practices are seen in bus rapid transit programmes in Lagos, Cape Town and Johannesburg, and urban light rail in Addis Ababa, Rabat and Johannesburg's Gautrain. The demonstration effect of urban light rail is such that Nigeria and Senegal are planning their own (and the Gautrain is adding a further 200 km).[6]

BOX 6.3 SOME NOTABLE PROGRAMS AND PRACTICES IN HOUSING AND LAND DELIVERY

ETHIOPIA. Since 2006 the Integrated Housing Development Program funded through government bonds has led to the construction of more than 396,000 condominium housing units of various sizes. The program The was funded through government bonds from the Commercial Bank of Ethiopia amounting to $153 million by the end of 2011. Building materials and equipment were exempted from taxes in a decision that helped to increase supply of affordable housing units and reduce their cost, making them affordable to an appreciable proportion of low-income groups.

MOROCCO. The government has developed several programs to improve access to housing, allowing it to declare 51 out of 85 townships and urban centres slum free between 2004 and 2014. About 306,000 households saw their living conditions improve. Construction of new housing units cut the estimated deficit of 1.24 million units in 2002 by half by 2013. The target for 2016 is to reduce it to 400,000 (about one third). Since 2010 736 contracts have been signed to deliver 1.26 million social housing units. By 2014, 366,000 units were under construction.

SOUTH AFRICA. In 1994–2014 the government spent about R125 billion ($8.87 billion) on human settlement development and R16 billion ($1.14 billion) on other linked infrastructure projects. The government, with the private sector, delivered 5,677,614 formal houses from 1994, subsidizing more than 3.7 million units for low-income households, enabling 12.5 million people to access secure accommodation.

Source: Ministry of Urban Development, Housing and Construction (2014) ; Kingdom of Morocco (2014); Department of Human Settlements (2014).

EASE HOUSING BOTTLENECKS

African cities face major gaps in housing, with the majority of the region's urban population living in informal settlements (often slums). Housing influences the options and choices open to industrial workers. It also accounts for the largest share of land use and determines urban form. If informal settlements continue to mushroom, accessibility and urban spatial development will be hurt, so it is important to relieve constraints on the construction industry, access to serviced land, regulatory barriers and mortgage finance.

These supply-side interventions must be paired with social housing programmes to translate housing needs into effective demand for the urban population not yet able to afford formal housing. National housing programmes that offer subsidized housing have helped to address needs in Ethiopia, Morocco and South Africa (box 6.3).

African governments need to instigate and coordinate investments in urban infrastrcture, particularly in electricity and transport, both to support industrial enterprises and to meet urban populations' needs.

In light of targets to expand manufacturing, low-income housing areas need to be linked to jobs through low-cost mass transit and pedestrian infrastructure. Gated communities that limit access to main streets and arterials undermine accessibility should be prohibited. New formal developments need to comply with planned street grids and the priorities of ensuring access for all.

PRIORITIZE STRATEGIC INFRASTRUCTURE INVESTMENTS

The quality and accessibility of urban infrastructure affect industrial outcomes. African governments need to instigate and coordinate such investments, particularly in electricity and transport, both to support industrial enterprises and to meet urban populations' needs.

Within cities poor connectivity, urban mobility and infrastructure seriously diminish agglomeration economies, hurting industrial productivity and job seekers' prospects. Lack of reliable energy is still a key bottleneck for industrial firms.

Investment in roads and logistics to connect strategically located cities is a step towards a national urban system supportive of economic development, enabling better inter-city connections for balanced national development and industry's better access to markets, labour and other factors of production.

PRIORITIZE INDUSTRY IN PLANNING FOR LOCAL ECONOMIC DEVELOPMENT

Industrial development needs to be prioritized in urban planning, management and governance. Cities should develop industrial action plans mirroring national industrial and national urban policies, be guided by the national development plan, and factor in the competitive advantages of certain cities.

Such plans will be more effective when part of a local economic development plan that is strategic and inclusive and that leverages local economic advantages and resources. Unlike traditional "smoke-stack chasing" policies that demand heavy subsidies or tax breaks, most local economic development plans now focus on enhancing the overall efficiency of industry and business through land use policies and smart investments in local assets and resources. They are not one-off activities, but a continuing process for cities to invent—and then reinvent—themselves to adjust to new realities shaped by industrial, technological and spatial shifts (box 6.4).

6.3 IMPLEMENTING THE POLICIES

Budgetary support and administrative arrangements should mirror a coordinated structure for urban and industrial development policies. Disconnects between the elements are often the reason for failures in implementation. So if budgetary or administrative support cannot be arranged to fit policies, the policies must be altered. Strong links between the two sides require a multi-level (continental, national and subnational) and multi-sectoral approach.

National and subnational budgetary processes, particularly for capital projects, should be based on coordinated urban and industrial policies. Investments should be prioritized on industrial and associated spatial targets.

FINDING THE FINANCING

Empowering urban local authorities with financial capacity to better plan and manage cities is crucial if cities are to better support industrial development. The Addis Ababa Action Agenda, for instance, recognized the role of subnational actors in financing for development. But decentralization without financing, and weak local capacities for financial management and revenue generation, challenge many African cities. The responses are to pair decentralized responsibilities with local capacity building, and to ensure funding through transfers and local ability to levy taxes and fees. Larger cities could be permitted to access external finance, including through municipal bonds. Public spending in investment and procurement has an important leveraging role in promoting local content, enterprise development and supply chains progressively increasing the role of urban local authorities.

Land value capture and mechanisms for land-based financing can link urban investments with public revenues under the right land registration and valuation system.

Land value capture and mechanisms for land-based financing can link urban investments with public revenues under the right land registration and valuation system. Updated value-based annual land taxes, public land leases, capital gains taxes, betterment levies, developer fees and sales of development rights hold huge potential for efficiently and fairly linking urbanization to public revenues.

Improved participation and transparency in budgeting and expenditures offers a way to build government trust and improve tax compliance. Participatory budgeting, where residents have direct control of a subset of budgetary expenditures through voting, offers opportunities, especially by ensuring more inclusive outcomes. It also engenders public involvement in local economic and industrial development, and may well help to deliver jobs and social benefits for all groups, especially the vulnerable.

Implementing urban and industrial policies in a coordinated manner requires a sound institutional framework matching the structure of the policies. Many African countries still face institutional constraints for coordinating the two strands—urban and industrial.

The private sector has major opportunities in executing industrial policies. Private capital can help to meet the development-finance needs of African countries, along three channels. First, in domestic financing and external capital, African economies need to tap private capital for investing in infrastructure, but also need to remove impediments ranging from a missing legal and regulatory framework for public–private partnerships (PPPs) to weak technical and institutional capacity for designing and managing PPPs. Second, it will be useful to involve private actors in discussing and prioritizing urban and industrial policies, within the context of developing a new generation of such policies. Third, and most important, it is vital to coordinate investment in infrastructure in cities and industrial zones to ensure that public investment crowds-in private investment, so as to achieve synergies and economic development aligned to priority subsectors and locations.

COORDINATING PLANNING AND EXECUTION

Implementing urban and industrial policies in a coordinated manner requires a sound institutional framework matching the structure of the policies. Many African countries still face institutional constraints for coordinating the two strands—urban and industrial.

Urban development and management form a complex, multi-sectoral process and involve multiple agencies at different levels—city, metropolitan and subnational. The core urban mandate typically rests with the lead urban development agency, which has responsibility for a raft of functions including urban form and structure at the different levels; housing policy for sheltered accommodation and related public and social services; urban land policy to guide growth patterns and to control speculation; administrative and political development, which entails creating optimal geographical administrative units and subnational authorities; and support for these bodies with financial, managerial and institutional capacities.

Urban development is also influenced by many other sectors and subsectors, especially industry, construction, infrastructure, energy and telecommunications. The dispersal of such competencies across entities—and at times the overlap between them—is a challenge for institutions.

Lead urban development agencies, though increasingly recognizing the role of cities and urban systems as engines of growth, generally focus on land and housing—which, however important, are not the crucial link between economic planning and industrialization. The multiple geographical scales of urbanization add another dimension to complexity, making coordination necessary not just between urban and industrial development bodies, but also between the different government levels.

A cross-cutting implementation platform between the urban and industrial sectors would help to align their priorities and strengthen the economic agenda within the urban development framework. A policy note or white paper to articulate the key principles of drafting urban and industrial policies, and setting up a such a platform, would be extremely useful.

Coordination is also needed in national industrial and spatial planning. The former translates priorities and targets into projects and programmes, and links them to budgets. Analysis of industrial conditions and spatial factors, including infrastructure, labour and raw materials, is important for formulating industrial programmes and strategies. This is also an important stage where locational preferences of industries are part of the programming process. The exercise can benefit greatly from a national spatial development framework that elaborates the national urban policy and vision in a hierarchy of cities, development areas and corridors. Coordination at this stage allows policymakers to create an industrial spatial plan by overlaying the urban development and industrial priorities. It also allows them to direct investment in infrastructure and SEZs in a manner that advances urban and industrial priorities and targets.

Given urbanization's cross-cutting nature and complexity, coordination with sectors and subsectors other than industry is also crucial. Energy, transport, communications and technology are, among others, important in shaping the urban development landscape. A mechanism needs to be set up for coordinating urban and industrial development planning. If planning on both sides is to be linked, multiple sectors, subsectors and actors need to be part of planning and executing policies. This mechanism should also provide for consulting with and involving private stakeholders, notably leaders in manufacturing and real estate.

The agendas on both sides are multi-scale and need to be managed at different levels, from local to national. Although decentralization remains important and is in progress in many countries, competencies in economic development lie primarily at national level, and many local authorities lack the interest or competence to formulate and execute economic programmes. Many cities, outside South Africa and Northern Africa, have little local economic planning experience and where they do, are too limited in territorial and substantive scope to have much impact. Moreover, such initiatives rarely interface with national and subnational priorities. Thus coordination at national level to align urban and industrial priorities should involve subnational authorities and be accompanied by technical, financial and institutional support. National plans are only as good as their implementation, and local actors are critical in implementation.

Understanding the complexities of urbanization and its links to industrial development—in order to assess policy options and trade-offs, to design good policy strategies and to measure impacts—requires evidence-based data. Moreover, urban development and long-term economic growth targets need a framework for linking them, one grounded in sound methods and a matrix of indicators. But spatial economic data, especially at subnational level, are lacking for employment, spatial economic structure, agglomeration economies, land and real estate markets, subnational revenues and expenditures, congestion and mobility (including public transit) and infrastructure quality. Cooperation between urban agencies and national statistical offices could, however, improve matters, possibly including think tanks.

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In conclusion, it is critical to develop guidelines and tools on how to coordinate the formulation and execution of urban and industrial policies, guided by national targets of growth and transformation. While policymakers may appreciate the need to link these policies, they also need to strengthen capacities. Based on practices that have worked in Africa and elsewhere, it will be important to support states and partnerships among regional economic communities.

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ENDNOTES

1 The myths are the following. Policies to improve cities will stimulate migration and only make cities more overcrowded. Policymakers should focus on rural development to slow urbanization. African cities are cheap. Good cities will spring up naturally under free market conditions. Industry will do better if it is separated from the urban dysfunction of cities. Urban issues are social issues, not economic issues.

2 "Product space" as elaborated by Ricardo Haussmann refers to a network of related products and sectors that feature relatedness in shared inputs and similar factors of production.

3 Primary cities studied across regions have been shown to retain their central importance over 100 or more years, in part due to accumulated physical and institutional investments (Henderson, Shalzi, & Venables, 2001).

4 New spatial and digital data can provide inputs into "smart" urban planning and design.

5 New York University and UN-Habitat are both piloting innovative approaches to road planning in advance of growth. See http://marroninstitute.nyu.edu/uploads/content/A_New_Plan_for_African_Cities_Oct_19_2015.pdf and http://unhabitat.org/urban-initiatives/initiatives-programmes/planned-city-extensions/.

6 Habitat III Secretariat, UNECA and UN-Habitat (2017)