Opinion: Smart urbanization — 5 fundamental pillars

Village residents committee from Majengo go through new maps after a successful participatory design and mapping exercise in Kilifi County, Kenya under UN-Habitat's Participatory Slum Upgrading Program. Photo by: Julius Mwelu / UN-Habitat

The model of urbanization over the past two decades has been far from "smart" and sustainable. This is the major conclusion of Habitat III, the third United Nations' Conference on Housing and Sustainable Urban Development that took place in Quito, Ecuador, in 2016. Our cities are growing very quickly and spontaneously. Decreased planning and excessive urban expansion, alongside reduced density, is leading us to unprecedented levels of chaos, urban poverty and environmental degradation.

These trends cannot be ignored. In fact, urbanization is increasingly a strategic issue at both national and subnational levels because it affects our immediate living environment: Our cities.

"A city that has an advanced model of technology but is badly planned, with outdated legal frameworks or lacking a good financial model, will only aggravate the dysfunction in the city. A 'smart city' is a city that uses technology in a 'smart' way to reinforce the pillars of urbanization."

— Dr. Joan Clos, executive director, UN-Habitat

Along with the rapid growth of urbanization, the proliferation of communication technologies in our cities has become another major trend of our times. Digital technologies have significantly impacted urban development and management in recent years and will continue to do so, contributing in some ways to a more functional development in areas such as transport, governance and energy efficiency. However, we must not count solely on digital technologies and smart cities to solve many of the challenges faced by our urban areas.

The diagnosis for a more sustainable and "smart" urban model is found in five fundamental pillars of urbanization, with Habitat III concluding with the adoption of the "New Urban Agenda" — an action-oriented plan based on these pillars. It includes very clear tasks and responsibilities for national and subnational governments. Here are five

highlights and practical examples:

1. National urban policies

The first of the fundamental pillars of urbanization is the call for national governments to assume their responsibility in the process of urbanization, by implementing properly developed and established national urban policies. Sustainable urbanization must be led by national governments working closely with subnational and local governments.

The government of Cameroon, UN-Habitat and other stakeholders began formulating and implementing the Cameroonian National Urban Policy in Feb. 2016. The policy will be an instrument for applying a coherent set of decisions in relation to the future of urban areas in Cameroon, drawing upon a process of consultation and coordination among different actors. It will also help the government revise planning tools, improve the implementation of the planning rules and regulations, increase the sources of financing and optimization of public infrastructure, and strengthen the capacities of the stakeholders both at the national and subnational levels.

A construction of a water tunnel, supported by UN-Habitat and ONE UN in Bugesera, Rwanda. Photo by: Julius Mwelu / UN-Habitat

2. Establishing rules and regulations

The second is the categorical need for urbanization to be based in the rule of law. Urbanization without rules and regulations tends to be spontaneous and ad-hoc. As the world's population grows more and more urban, we have no choice but to become more efficient in our urbanization, by establishing rules and regulations, and implementing them.

Like many developing countries, Zambia is undergoing rapid urbanization, but the current planning system is not equipped to deal with the resulting effects of climate change, resource depletion and economic instability. The planning system has also, to a large extent, failed to meaningfully consider the existing land tenure — an estimated 85 percent of the total land is held in customary tenure — or involve communities and other stakeholders in the planning of urban areas, thus contributing to the problems of spatial marginalization and exclusion.

To combat this, the government of the Republic of Zambia recently enacted the Urban and Regional Planning Act, the principal legislation for urban land use planning. It aims to fundamentally transform the land use planning system, planning frameworks and planning process.

Community consultation in Kanyama, Zambia. Photo by: Alexander Chileshe / UN-Habitat

3. Urban planning and design

The third pillar refers to the design of buildable plots and public spaces, and the relationship between the two. Urbanization without the proper allocation of basic space and the correct design of street patterns and buildable plots is doomed to failure.

Johannesburg's Spatial Development Framework is a policy that addresses spatial inequalities, job-housing mismatch, urban sprawl and fragmentation, exclusion and disconnection of urban areas, inefficient residential densities and land uses, and increasing pressure on the natural environment and green infrastructure.

The framework links the spatial development of the city with the financial resources available in the municipal budget, and has proposed six priority transformation areas, as devised by a variety of local, national and international actors. This policy has established how the city should develop over the next 25 years, and its implementation will have a positive impact on the lives of the city residents.

Escolaras de comuna 13 take residents up into a hillside community in Medellin, Colombia. Photo by: Julius Mwelu / UN-Habitat

With a peri-urban structure and a population that is projected to grow by half a million people annually over the coming years, Kenya's Kiambu County needs to acquire budgetary resources to quickly upgrade and build public infrastructures.

The county requested UN-Habitat's support in 2014 to advise on private investment for local infrastructure and services, municipal finance, generation of local revenues to facilitate service provision, and to foster economic development within municipals. So far, the project has improved the county's revenue generation, and has strengthened and developed its institutional framework for undertaking detailed planning, financial structuring, overseeing the management of projects and reorganizing tax collection systems.

Preliminary results indicate a potential increase in revenue by 300 percent, with a shift from tax burdens from small businesses to larger businesses, and a reduction in the cost of collection and administration for revenue mobilization.

4. Form a financial plan

The fourth pillar is to invest in a financial plan for urbanization. Urbanization without a financial plan will flop. Urbanization should be approached not as a cost, but as an investment, because the cost of urbanization is minimal compared to the value that it can generate. If local authorities decide to recategorize rural land to urban, the value of that land multiplies tenfold at the moment that decision is taken, as a clear example of value generated. The key issue is to guarantee that the urban value generated is properly shared among various constituencies, not just a few. A municipal financial plan should have three elements:

• The first refers to core urbanization functions that should comprise an urban land registry (cadastre and land registry), urban planning and design, building codes, municipal ordinances, urban inspection and correction, and tax collection. These core functions are exclusively municipal.

• The second relates to the basic urban services required to guarantee street and public space maintenance, sanitation, waste management, water, energy, telecommunication, mobility and public transportation. There are

different modalities of concession of these services.

• The third covers the complementary services provided by the welfare state, mainly safety and security, education, health, public housing, local economy promotion, and cultural services. The role and capacity of local governments to guarantee these services largely depends on the delegation of such authority by the national government.

A fisher in a local market in Jamestown, Accra is counting Ghanaian cedis. Photo by: Julius Mwelu / UN-Habitat

To ensure effective urban planning and management in order to curb the excessive urban sprawl and unplanned land use in Ghana's Greater Accra Region, a Metropolitan Strategy for Greater Accra was created, and with it the Ningo Pram Pram Planned City Extension.

This aims to provide access to housing, services and work for between 1.5 and 2 million inhabitants, representing a large share of the expected population growth of the Greater Accra Region, in an area already experiencing high residential pressure.

5. Local implementation

And finally, local implementation. Local governments, in particular, are often not given the means to address the challenges of unplanned urbanization. The New Urban Agenda offers planned city extensions, urban redevelopment and planned city infills as the best three tools to address rapid urban growth within our cities.

ICT also potentially has a large role to play in the deployment of the five pillars toward good urbanization. A smart city requires the use of technology to support these pillars. At the same time, technology itself is not a panacea of development. A city that has an advanced model of technology but is badly planned, with outdated legal frameworks or lacking a good financial model, will only aggravate the dysfunction in the city. A "smart city" is a city that uses technology in a "smart" way to reinforce the pillars of urbanization.
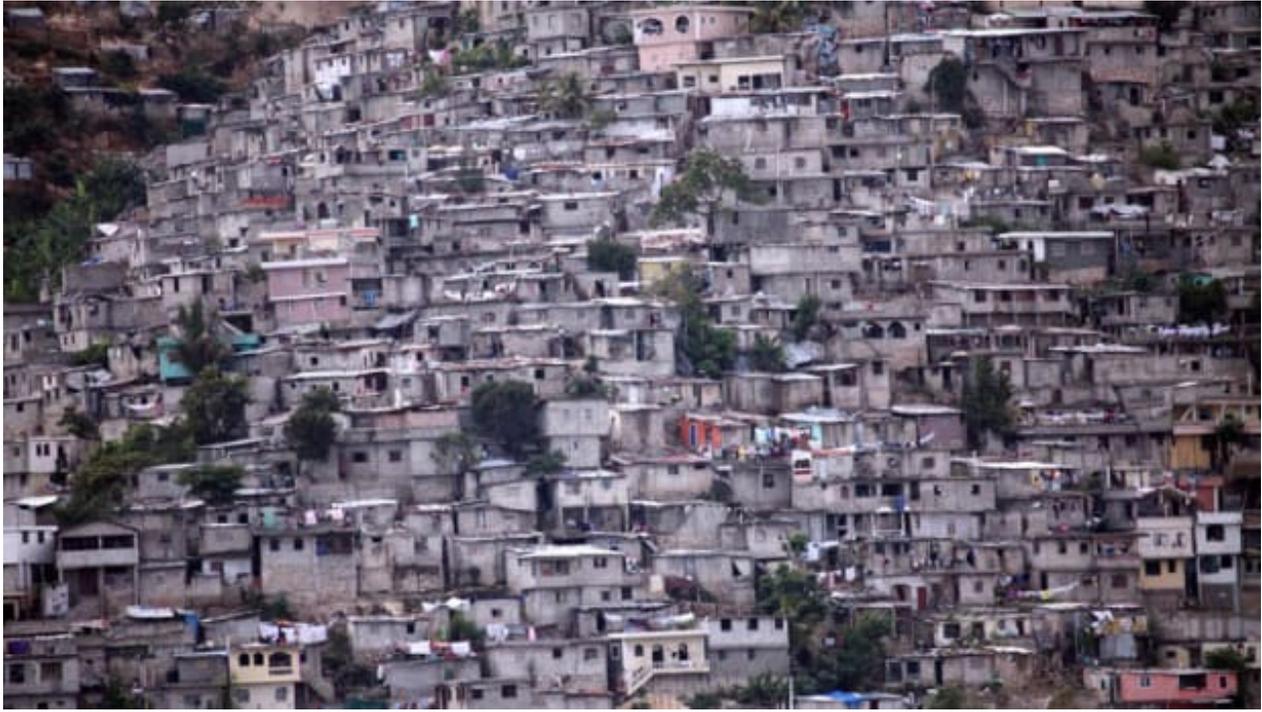
A view of Port-au-Prince, Haiti. Photo by: Julius Mwelu / UN-Habitat

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