

Chapter 4

Urbanisation and Industrialisation in Africa and Asia in the Context of SDG Linked Issues of Sustainability, Inclusivity and Partnership



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Introduction

An overview of secondary data and contemporary literature on urbanisation in Asia and Africa suggests that despite the widely different trends and patterns, alternate policy frameworks and varying ideological dispositions across the countries and governments, the two continents are currently experiencing rapid urbanisation which, in the coming decades, is likely to be much higher than the global average and those of the most other continents. It is argued that there has been a progressive shift of the epicentre of urbanisation from “the predominantly northern latitudes of developed countries to the southern ones of developing countries” at least since the early years of the present century. Understandably, the “the mean latitude of global urban population would steadily shift to south” (Mohan and Dasgupta (2005)).

The scholars who believe development through ‘market and governance’ argue that the strategy of globalisation and structural reform is responsible for the acceleration of rural–urban (RU) migration, giving a boost to the pace of urbanisation. The latter is attributed to pull factors operating through the cities and towns and much of the investment and consequent increase in employment would take place in or around the existing urban centres. This rapid pace of urbanisation both in Africa and Asia would be promoted by the scale of production, particularly in manufacturing, agglomeration economies, technological developments and substitution of capital for land. Even when the industrial units get located in rural regions or virgin coastal areas, in a few years, these would acquire urban status.

This perspective and the proposed package of solutions have not gone unchallenged. It is argued that migration and urban development in the two continents would be associated with accentuation of regional and interpersonal inequality, leading to an

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increase in poverty. A low rate of infrastructural investment in public sector—needed for compliance with globally ordained fiscal discipline—would result in deceleration of agricultural growth. Employment generation in the formal urban economy would not be high due to capital intensive nature of industrialisation. These, coupled with open trade policy, would “contract the purchasing power and increase unemployment rate” resulting in destabilization of the agrarian economy and exodus from rural areas. All these would lead to rapid growth in urban population. The protagonists as also the critics of globalisation model, thus, converge on the proposition that urban growth in the post-liberalisation phase in both the continents would be high, backed up by rapid rural-urban migration.

The present paper overviews the urbanisation process in Africa and Asia, disaggregating at the regional level since the 1950s, including the projected pattern until 2050, in the second section, which follows the present introductory section. An attempt is made here to examine the thesis of rapid urbanisation and urban explosion in these regions. The size-class distribution of cities and towns along with the changes therein during 2018 and 2030 have been analysed in the third section. In the following section, an attempt is made to understand the challenges and opportunities faced by African countries posed by the process of urban industrial development. Issues of ecological degradation, pressure on environmental resources due to deforestation, land acquisition for industrial and service activities, fall in water tables in the cities and their peripheries have been discussed in the context of the rapid pace of urbanisation in the past decades as also in coming years. It analyses how the population growth in cities, towns and their peripheries has resulted in alarming growth in demand for land which poses a threat to the ecosystem and biodiversity in different regions. It, at the same time, shows that a strategy to strengthen the capacity of the government for adaptation and making cities resilient can lead to rapid socio-economic transformation and contribute to meeting of the SDGs. The final section proposes a strategy of sustainable and inclusive urbanisation within the framework of Afro-Asian Growth Corridor, through mutual cooperation among the countries in partnership. Experience in organisation of data, designing regional and city level plans, their implementation, resource mobilisation, etc. of the Asian countries would be extremely relevant in building the participatory development model. While sharing the success stories in the field of urban planning and governance as also warning its cooperating partners to avoid the mistakes, India can make an important contribution in designing the future strategy of urbanisation. In turn, India along with several Asian countries would learn what to adopt and what to avoid in linking their cities with the global capital market, from the African experience.

A Macro Overview of Urbanisation

Africa, a largely rural continent with exceptionally rich biodiversity, is the fastest urbanising region in the world and would remain so in the coming decades (Laurance et al. 2015). Its urban population is expected to become more than five times in five

Table 4.1 Share of different regions in Global Urban Population, 1950–2050 (%)

Region/Sub-Region	1950	2000	2020	2030	2050
Africa	4.3	10.0	13.4	15.9	22.3
Eastern Africa	0.5	1.9	3.0	3.9	6.3
Middle Africa	0.5	1.3	2.1	2.6	3.9
Northern Africa	1.7	2.9	2.9	3.1	3.5
Southern Africa	0.8	1.0	1.0	1.0	1.0
Western Africa	0.9	2.8	4.4	5.4	7.7
Asia	32.8	48.8	53.9	54.2	52.1
Eastern Asia	16.1	22.2	24.6	23.7	19.3
South-Central Asia	11.3	15.6	17.0	18.0	20.0
Central Asia	0.8	0.9	0.8	0.8	0.9
Southern Asia	10.5	14.7	16.2	17.2	19.2
India	8.5	10.2	11.0	11.8	13.1
South-Eastern Asia	3.4	6.9	7.6	7.8	7.9
Western Asia	2.0	4.1	4.6	4.7	4.8
World (Millions)	751	2868	4379	5167	6680

Source Computed by the author using the data provided in UN (2018)

decades, shooting up from 286 million in 2000 to 1488 million in 2050; its share in the global urban population rising from just 4 percent in 1950 to 10 percent in 2000 and 22 percent in 2050, claiming over 22 percent of the global urban population (Table 4.1). Asia, with larger geographical territory and having ancient urban roots, would increase its population two and a half times during the same period, the corresponding percentage figures being 33, 49 and 52 at the three points of time (UN 2018). Africa would, thus, experience much faster urban growth, which is understandable since it had only 14 percent of the population living in urban areas compared to 18 percent in Asia in 2000.

A quick overview of the detailed data in the World Urbanisation Prospects (2018 Revision) reveals that several African and Asian countries are experiencing an acceleration in the growth in urban population ever since the late seventies. Projections have been made that the percentage of the urban population in Africa would go up from just over 35 to about 59 while Asia would see even higher rise of 19 percentage points from 37 percent figure in the base year, during 2000–50 (Table 4.2). It may be noted that urban population in Africa was about a tenth of that in Asia in 1950 but by 2050, it would become almost half that of the later. While the share of Africa in the world urban population would continue to grow even after 2030, that for Asia will go down from 54 percent to 52 percent (Table 4.1). Importantly, the share of Asia in the incremental world urban population during 1950–70 was as high as 43 percent compared to 8 percent for Africa. The corresponding figures for both will be 45 percent each for the period 2030–50, with only 10 percent of the incremental urban population coming from the rest of the world.

Table 4.2 Percentage of Urban population, 1950–2050

Region, Sub-Region, Country or area	1950	2000	2020	2030	2050
Africa	14.3	35.0	43.5	48.4	58.9
Eastern Africa	5.7	21.0	29.0	34.5	47.1
Middle Africa	13.9	39.7	50.6	56.2	67.0
Northern Africa	25.9	48.3	52.5	55.3	64.1
Southern Africa	37.7	53.8	64.6	69.4	77.2
Western Africa	9.3	34.5	47.7	53.6	63.8
Asia	17.5	37.5	51.1	56.7	66.2
Eastern Asia	17.9	42.0	64.8	72.8	81.4
South-Central Asia	16.6	29.6	37.1	42.0	54.1
Central Asia	32.7	45.7	48.3	50.5	60.5
Southern Asia	16.0	29.0	36.6	41.7	53.8
India	17.0	27.7	34.9	40.1	52.8
South-Eastern Asia	15.6	37.9	50.0	55.6	66.0
Western Asia	28.9	63.8	72.3	75.4	81.4
World	29.6	46.7	56.2	60.4	68.4

Source Computed by the author using the data provided in UN (2018)

The demographic weight of Asia and Africa—currently accounting for over 60 percent and 17 percent of the world population and projected to increase over time—is so overwhelming that researchers, planners and administrators have often viewed the information in an alarmist perspective, as discussed in the preceding paragraphs. International organisations, too, have often used phrases such as an ‘urban avalanche or earthquake’ hitting the two continents, based on the absolute magnitudes and the changes therein, compared to the corresponding global figures, as noted above. Large and growing shares of the continents in the world urban population are significant milestones but cannot be considered as parameters in formulating a development strategy. There is a need to look at the rates of growth in urban population and more importantly Urban-Rural Growth Differentials (URGD)—the difference of the annual growth in urban population from the corresponding rural figure—as analytical parameters, reflecting the dynamics of urbanisation in the regions.

The growth rates of urban population in Africa in all its five regions during the fifties and sixties were spectacular—much higher than the global averages and even those of Asia. The rate slowed down towards the end of the century. The case of Asia was the opposite. After registering modest urban growth in the fifties and sixties, the continent picked up the momentum of urbanisation which became phenomenally high towards the end of the century. These, however, remained below those of Africa but much above the global average until the early years of the present century.

Importantly, there has been a deceleration in urban growth in recent years all over the world, primarily because of the decline in natural growth of population. As per the UN projections, this trend will continue in the coming decades. Africa

Table 4.3 Average annual rate of change in Urban Population, 1950–2050

Region, Sub-Region, Country or area	1950–1955	2000–2005	2020–2025	2030–2035	2045–2050
Africa	4.75	3.52	3.44	3.19	2.71
Eastern Africa	5.21	4.17	4.32	3.98	3.28
Middle Africa	4.28	4.43	3.98	3.61	2.93
Northern Africa	4.50	2.12	2.05	1.96	1.76
Southern Africa	3.45	2.26	1.84	1.43	1.02
Western Africa	6.29	4.42	3.82	3.38	2.82
Asia	3.86	3.06	1.84	1.35	0.84
Eastern Asia	4.36	3.34	1.47	0.67	- 0.04
South-Central Asia	2.79	2.78	2.29	2.06	1.55
Central Asia	4.95	1.61	1.49	1.58	1.50
Southern Asia	2.63	2.85	2.33	2.08	1.55
India	2.30	2.76	2.33	2.13	1.54
South-Eastern Asia	4.28	2.99	2.01	1.60	1.06
Western Asia	4.90	2.74	1.90	1.60	1.21
World	3.10	2.29	1.73	1.45	1.13

Source Computed by the author using the data provided in UN (2018)

nonetheless has maintained an edge over the rest all along the period and would continue to do so till 2050, as seen in Table 4.3. Asian urban growth will, however, be below that of the world after 2030. However, if Africa is taken out of the global figure, Asian pace of urbanisation will be faster than that of the rest of the world.

It has been argued quite rightly that urban growth rate in a region could be high compared to the others due to a higher growth in population. In order to articulate dynamics of urbanisation, scholars and policy planners have often taken the difference between urban and rural growth rates. In the absence of comparable data on rural–urban migration, URGD has been popular in UN system for assessing the force of urbanisation and making cross-national and cross-regional comparisons. A global comparison of URGD figures (Table 4.4) reveals that Africa had a stronger urban dynamism in the fifties and sixties than Asia, attracting massive rural–urban migrants. Asia, however, overtook Africa in the nineties and subsequent decades and maintained a higher level till 2030. After that, the two continents have similar levels of urban dynamism, as one would infer from the convergence of URGD figures.

As per the globally observed pattern, as recognized and used in the UN system, URGD value is expected to go up till a country attains fifty percent level of urbanisation and declines thereafter. This may be seen as generally valid globally as the URGD increased till the first decade of the twenty-first century wherein half of the world population became urban, and decreased thereafter. Asia, too, seems to be in conformity with the pattern since its URGD has been going up since the fifties with certain decadal fluctuations. The figure, however, started going down after the

Table 4.4 Urban–Rural Growth Differential

Region, Sub-Region, Country or Area	1950–1955	2000–2005	2020–2025	2030–2035	2045–2050
Africa	3.13	1.65	1.95	2.06	2.19
Eastern Africa	3.19	1.73	2.51	2.64	2.62
Middle Africa	2.73	2.33	2.24	2.28	2.30
Northern Africa	2.73	0.83	1.05	1.52	2.02
Southern Africa	1.77	2.17	2.19	2.08	1.96
Western Africa	5.13	2.81	2.45	2.18	2.09
Asia	2.37	3.05	2.31	2.10	1.99
Eastern Asia	3.08	5.09	3.96	3.06	2.03
South-Central Asia	1.23	1.56	1.99	2.31	2.49
Central Asia	2.85	0.92	0.64	1.57	2.29
Southern Asia	1.08	1.61	2.04	2.34	2.49
India	0.75	1.54	2.13	2.49	2.59
South-Eastern Asia	2.17	2.68	2.24	2.24	2.20
Western Asia	3.47	1.75	1.51	1.73	1.86
World	1.91	1.99	1.76	1.73	1.76

Source Computed by the author using the data provided in UN (2018)

early years of the present century, even though the urbanisation level was below fifty percent, suggesting premature slacking of urban dynamism. This is even more correct in the case of Africa as its URGD fell drastically in 2000–05 compared to 1950–55.

One would infer, contrary to the assertions made by several researchers, administrators and research and policy linked institutions that there are significant deficits in terms of the levels and pace of urbanisation in most of the African and Asian countries in terms of the global norms. Their recording a decline in URGD is a matter of concern reflecting the dampening of the factors behind urban industrial development. It is possible to explain this in terms of the thesis of premature deindustrialisation and shrinkage of cities in the developing world. One would expect the national and global leaders to meet the challenge of promoting spatially balanced development by addressing the issue. As Africa and Asia have somewhat similar concerns in this regard, mutual cooperation in research and preparing and implementing development strategies would help in addressing these and promoting inclusive and sustainable urbanisation (McGranahan et al. 2009).

Changing Structure of Urbanisation with Differential Growth Across Size Class of Urban Centres

The cities and towns in different size categories have been growing at different rates, altering the size composition of urban population across the continents of the world. The percentage share of urban population in cities above 10 million people is projected to go up from the present level of 14.4 and 8.5 in 2018 to 17.7 and 11.0 in 2030 in Asia and Africa, respectively.

Correspondingly, the percentage figures for cities having a population between 5 million and 10 million would be as high as 9 percent in Asia and remain at that level during this period while the figure would go up from 5.5 to 9.8 in Africa. In sharp contrast to this, the figures for Europe in these size categories of cities are much lower. Furthermore, Asia and Africa already have 20 and 3 cities, respectively with population over 10 million against only two such cities in Europe. The number of cities in the size class between 5 and 10 million are 23 and 5 in Asia and Africa, respectively, against only four such cities in Europe. More importantly, while the number would remain the same in Europe in the coming decades, these would go up significantly in the other two continents (Table 4.5).

Urbanisation in most countries in African continent manifests in the growth of its megacities; its urban structure is characterised by a high degree of urban primacy, that is, one city—usually the capital—having high concentration of population, and economic activity. The eight megacities in Africa, are Lagos, Kinshasa and Cairo, with over 10 million people and, Khartoum, Johannesburg–Pretoria, Dar es Salaam, Alexandra and Abidjan recording population between 5 million to 10 million. As governance, and public institutions, along with political power, get concentrated in these cities, not much attention is given to infrastructural provision and economic

Table 4.5 Size class distribution of Urban Population/Centres in Asia and Africa in comparison with Europe

Country/Population	Percent share in Urban population		Number of cities	
	1918	2030	1918	2030
<i>Africa</i>				
10 m+	8.5	11.0	3	5
5–10 m	5.5	9.8	5	13
<i>Asia</i>				
10 m+	14.8	17.5	20	27
5–10 m	8.9	8.8	28	34
<i>Europe</i>				
10 m+	4.2	6.1	2	3
5–10 m	4.8	3.2	4	3

Source Computed by the author using the data provided in UN (2018)

development of middle and lower order towns. This has remained so, despite high rates of urban population growth and emergence of a large number of small and medium towns over the past few decades. The concern for this serious inadequacy and resultant distortions in the overall urban structure has led the African region to successfully push, for a shift of focus onto the national territorial system and settlement hierarchy, away from select megacities, in the Habitat III process.

Unlike many countries in South and East Asia, small and medium towns and cities hold the key to rapid urbanisation in Africa and Asia. Happily, much of the increase in urban population is taking place in small- and medium-sized cities in mid latitudinal Africa as well as South Asia. The growth of existing villages and towns linked with the local demand of an emerging middle-class is transforming the rural landscapes. This holds forth a great promise for escaping premature deindustrialisation for several countries in Africa and Asia. The nature of spatial expansion and growth of smaller urban settlements will significantly influence the ability of the two continents to achieve targets associated with the 2030 Agenda set out by the United Nations linked with sustainability and inclusiveness.

Urbanisation in Africa: Challenges and Implications

UN projections indicate a slowing down of the pace of urbanisation in Africa from a high rate of about 5 percent per year in 1950s to 3.5 during 2000–25. The rate is predicted to go down marginally in the subsequent decades but that can largely be attributed to decline in natural growth in population (Table 4.3). In case of Asia, the rate has declined significantly from the early fifties to early years of the present century but the decline is very sharp in case of the subsequent periods. This is a significant departure from the trends projected for Africa, with significant variation across the countries. Natural increase, however, will play a more important role in determining the growth in urban population compared to migration in both the continents.

The present high rate of urbanisation as well as the projected high growth rates, in relation to other continents, for the coming three decades put Africa and Asia on the same platform. The processes and the factors underlying urbanisation are, however, vastly different. Much of urban expansion in Africa is characterised by unplanned and unregulated growth whereas urbanisation in Asia is somewhat planned, resulting in a rapid increase in population density although the later is as yet not very high (Turok et al. 2014). The legacy of colonialism, structural adjustment, and neoliberal policies have weakened democratic institutions of urban planning in Asia and produced urbanisation scenario described as “messy” by the World Bank. And yet, the lack of planning framework, ad-hocism and role of vested interest in urban interventions are much more visible in African countries.

Complicated settlement structure has emerged over time with weak local governments and poor land-use management practices in African cities (Turok 2012). In many of them, there has been proliferation of extremely high density ‘slums’ and

informal settlements, mostly in the city core as also the unregulated peri-urban areas. Inadequacy in their provisioning of basic services and infrastructure can partly be explained in terms of colonial institutional arrangements, aggravated by the persistence of political instability (Dodman 2016). It has been difficult for the local governments to adhere compliance with the norms of health and hygiene in providing basic services and biodiversity conservation for environmental protection (Lawasa 2014). And yet, the overall urban form is of low-density, primarily due to poor land-use management practices and cities not having any system of urban planning.

This is also because urban middle and upper class and expatriates choosing mostly to reside outside the city core, leading to sprawling development of residential areas and sub-urbanization. The unregulated peri-urban colonies built by them created exclusive low rise habitats in the countryside, interspersed with low-income colonies and agricultural land (Flintan 2011). Consequently, a multi-layered governance arrangements emerged in different countries, with weak local authorities. On the contrary, cities in Asian countries have indirectly forced people to get into informal settlements with much worse physical conditions by having strict land-use plans in formal settlements, making the latter unaffordable to the poor.

Increase in urban population in Africa has, thus, been accompanied by an expansion in urban land. This can partly be attributed to the legacy of colonialism, wherein the focus was on a few cities through which administrative and trading machinery was operationalised. These cities not only maintained their primacy but could also strengthen their economic base through subsequent adoption of neoliberal policies and programmes of structural adjustment. This is not the case in many of the Asian countries wherein urban expansion has taken place mostly in continuum, with intermingling of rich and poor within settlements. Understandably, the increase in urban land has been far less than in urban population.

Interestingly, the colonial rule in Asia has left the tradition of Anglo Saxon urban planning which the urban middle-class could use this to their advantage to build well designed low-density neighbourhoods for themselves. Also, in sharp contrast with Africa, there were land-use and density restrictions under city level Master Plans, reflecting upper-class bias. All these were responsible for the overall land to man ratio in urban areas in Asia being relatively low as per the global standards. Since the planned low-income colonies were also designed not with very high densities, the demand for urban land was not very high. Also, many of the Asian countries went in for agricultural development, maintaining their landholding patterns that did not allow much land to be released for non-agricultural use. As a consequence, despite the incremental urban population predicted for the period from 2000 and 2030 for Asia being higher than in Africa, the increase in urban land would be lower. Importantly, a six-fold increase in the demand for urban land has been predicted for Africa for this period which is much higher than that of Asia.

The negative impact of a rapidly growing demand for urban land in Africa is evident from its high rate of deforestation around large cities, small towns, and transportation routes (Rudel 2013). Peri-urban agriculture, important for food security in Sub-Saharan Africa, is responsible for the loss and degradation of habitats

around cities. Importantly, Africa comprises several regions with exceptional biodiversity and is dotted with protected areas (PAs) with varying levels of protection status (IUCN 2017). In 2000, it was sparsely urbanised and merely 500 km² of urban land fell within the boundaries of its PAs. Presently, these cover an area of about 4.5 million square kilometers across the continent. In mid latitudinal Africa, nearly 20 fold increase in urban area in the vicinity of PAs, pose serious challenges for governance and management.

Urbanisation and economic development have led to the expansion of the transportation network which is of concern in the context of biodiversity conservation (Frank et al. 2015). There are 33 major development corridors of which many are in their preparatory stages. These rail and road linkages when operationalised would cut through over 400 PAs and degrade about 2000 more. Moreover, these would significantly expand future urban expansion patterns and fragment the existing habitats (Dobson et al. 2010).

Long-distance water transfer will be yet another critical issue in African urbanisation since large cities would continue to dominate the continent's urban spatial expansion. Growth of smaller cities and towns can reduce the necessity of long-distance water transfers since a part of the demand can be met locally through tapping new sources. Besides the pressure on agrarian ecosystem due to increasing demand for land and water from agriculture and forestry, the urban demand for natural resources such as fuelwood, building materials, and wild foods can lead to significant local environmental degradation (Zheng et al. 2016).

Ethnic conflicts and civil wars, some of which have been going on for decades, have been important drivers of urbanisation. These pose challenges to habitats in peri-urban areas around major cities where the refugees and internally displaced people (IDP) have settled down. What started as temporary relief camps got merged into urban areas over time. A large number of refugees and IDP are living in cities in East Africa and the Horn of Africa.

It is often assumed that rapid urbanisation and migration from rural to urban areas would ease the pressure on natural habitats. In many parts of Sub-Saharan Africa, this indeed is the case as it has reduced rural populations which, in turn, brought down the rates of deforestation. However, in Western Africa, forests have been put to agricultural use to meet the increased demand for food in the cities, showing a positive relationship between urbanisation and deforestation. Besides, land speculation by wealthy urban residents, abetted by lack of land-use restrictions, has led to land conversion and its inefficient use. One would argue that any reduction in land pressure due to rural–urban migration is likely to be overtaken by the increased demand for food and other natural resources from rapidly growing African cities.

In addition, there has been a significant foreign direct investment on agricultural land and land purchases to meet the export demand for food and forest products, often with serious ecological consequences (Abemethy et al. 2016). These are financed from countries like Malaysia, and Brazil, in addition to Europe and the USA. In recent years, investment from another rapidly urbanising country, China, has been an important source of funding for such projects. Besides, there are infrastructural and industrial projects that have played a major role in shaping expansion around

existing urban agglomerations as also creating new urban regions (Wouterse et al. 2011). Both, however, unless planned properly, can have a serious negative impact on biodiversity and ecosystems at local and global levels (Lin et al. 2015). It would, therefore, be important to ensure that such investments facilitate industrial diversification and usher in inclusive and sustainable urban development (Pieterse et al. 2014). In contrast, FDI in agriculture and forestry has been very low in Asian countries, particularly India. In the case of the latter, the infrastructural and industrial investments have come as partnership projects and mostly been integrated with regional or city development plans.

There has to be a paradigm shift when Asian investments are sought in a big way into African development scenario since both face similar ecological concerns in the context of urban industrial development that are at variance with the interests of the current investors. Given the shared concern of migrants not being integrated into a formal urban system and the threats of environmental degradation, the thrust of the strategy of Afro-Asian cooperation should be to promote balanced urbanisation through development of small and medium towns (Pieterse et al. 2015). Indian investments could be important in ensuring that these facilitate industrial diversification and inclusive urban development if the successful experiences of industrial dispersal through development corridors, connecting the major megacities are replicated in Africa, after due modifications, required to suit the local context.

A Perspective for Inclusive Urban Development and Governance

It is important to recognize that urban areas are integral to ecological landscapes. Also, ecosystem processes and services should change along rural–urban continuum, as emphasized in SDG 11. Unfortunately, dependency of humans on ecosystem services has not been built into national or regional policy positions on urbanisation, Africa and Asia being no exceptions.

The cities in both the continents can benefit from strengthening the ecosystem services such as provision of clean air and water, besides provisioning of transport, digital infrastructure and public institutions that would attract foreign direct investment for promoting rapid urban industrial development (UN 2016). African Urban Agenda (AUA), a UN-Habitat initiative to facilitate sustainable urbanisation in the continent, provides an opportunity to incorporate ecological governance and conservation into the system of urban planning (AUC 2015). Urban agriculture emerges as an instrument of increasing the green cover in this context and of enriching biodiversity in urban areas. This, however, has a greater possibility in Africa than Asia due to low pressure of population on land in the former.

Coordination among governments across local, regional and national levels would be essential for an efficient management of ecosystem services and coordinated development of infrastructure through regulatory mechanisms (UN 2016). The African

Union (AU) and its affiliated body, the African Ministers' Council on Water, can provide political leadership for provisioning of water resources for sustainable development. Africa's ecosystem can, thus, serve as a foundation for developing green infrastructure that can meet the needs of its cities and towns while safeguarding its fragile biodiversity.

India, along with supra-national and regional bodies has the potential to contribute to ecological governance in Africa. Urbanisation can become a catalyst for effective conservation of biodiversity, facilitating development of green infrastructure while meeting the needs of basic amenities of urban population. Notwithstanding the encroachment of natural habitats and increasing demands of growing urban populations on natural resources, concentration of people in small and medium towns can ease off the pressure on land and resources.

A key area of concern in African and Asian continents is that despite a fairly high rate of urban growth in recent decades, most of the countries have failed in sustaining a reasonable rate of industrial and economic growth. This can be attributed to a low rate of capital investment and of saving, partly due to low per capita GDP. Besides, African cities, except a few at the top of the hierarchy, are poorly connected to the global capital market. The former produces select goods and services for regional and international markets but does not specialize in the manufacturing of any globally tradable goods with economies of scale.

The investments in urban development must support large concentrations of people and employment in different parts of the city, connecting industrial and infrastructural projects with housing complexes and commercial areas. Unfortunately, the *morphology* of African cities or what Lall (2020) calls their urban 'form' has not been structured to improve economic prospects in their regions. He identifies dense concentrations only in select areas and disconnected neighbourhoods as the key factor constraining their economic development. These have been attributed to inefficient land markets, absence of effective zoning regulations and overlapping property rights regimes. There is no strong formal planning institution at the city level which can envisage and connect residents with jobs, services and commercial/recreational complexes. The resulting scattered neighbourhoods turn out to be expensive for businesses and social interactions, resulting in the need to pay higher wages. This, in turn, makes the location of firms in these cities less competitive and less profitable in the global market, discouraging potential regional and global investors and trading partners.

The most important component of the strategy of urban development will, therefore, be to make infrastructural investment in a coordinated manner so that neighbourhoods can get well connected with jobs and basic services. A case has been made for Africa's cities to open doors to the world by formalizing land markets, bringing transparency in property rights, and having effective urban planning. An important consideration in operationalising this would be the quality of data. There are inherent uncertainties in future projections of the growth in urban populations and required urban land and these have implications for the governance system. India has a strong tradition in building urban information system that can be of assistance for

establishing a comprehensive database and linking it with decision-making process at different levels of governance.

For many of the African countries, rapid urbanisation can be vital for taking advantage of the demographic dividend, owing to the high shares of their young population, that will go up in the coming decades. Migration of able-bodied young persons to cities, however, poses enormous problems in terms of managing congestion, unemployment, morbidity, diseconomies of agglomeration and pollution in several African cities. This has emerged as a big challenge in making that growth inclusive and equitable. Here, the Indian experience - its successes and failures - in dealing with the problems of the rapid growth of youth population, uneven population/employment density and pollution level, unequal access to basic amenities and differential absorption of migrants across the wards within the cities would be of great value.

As a latecomer to the development scene, many of the emerging African cities will benefit from Indo-African collaboration by availing technological innovations, including digital know-how, eco-friendly construction materials, and new modes of transport. India would have a lot of experience to share regarding smart infrastructural investments and an effective governance system for making cities more competitive and attracting modern industries (Ghani et al. 2016). In making the cities more competitive, it will be important that the cities go for specialization with concentration of a particular industry, as happened in several cities in India during eighties and nineties. Initially, the cities will go for specialization in traditional industries, catering to the national and regional market. In the second stage, a number of second tier cities are likely to go for specialization in modern industries, such as office accounting, computing machinery, communication equipment, etc. However, many of the large cities, that are highly specialized, would learn from the recent experience of Indian megacities like Mumbai, Delhi and Bangalore, experiencing the largest and fastest shifts away from specialization. With the advancement of technology, diversification will shape future urbanisation patterns in Africa. Importantly, industrially diversified cities and districts in India have high employment growth since 2000. This opens up possibilities to explore in African context. Furthermore, such job gains of diversification can trickle down from cities to their rural hinterland, ushering in a process of inclusive and spatially balanced growth, based on an integrated settlement structure, as has happened in many of the Indian states in the south such as Kerala, Tamil Nadu and Karnataka.

For taking full advantage of these positive trends, African cities will have to boost infrastructure investment coming from internal and external sources. Despite a slow-down in the manufacturing sector's growth—a trend mirrored in many countries in the world including India, linked to global recessionary factors—urbanisation can be accelerated, based on local demand, accessed through better infrastructural connectivity. A large majority of people in the continent lack access to basic amenities such as safe drinking water, sanitation, electricity and roads that can absorb massive global and national investment through creation of appropriate institutional arrangements and incentive systems. This would go a long way in promoting inclusive and sustainable development in the region.

Access to better infrastructure and basic amenities and increased efficiency in public spending will attract more private investment for infrastructure and industrial development. This, when backed up by a skill development strategy, as is being attempted currently in India, would lead to emergence of an entrepreneurial class. This, as per ADB report Asia 2030 and Asia 2050, would be a critical factor in pushing Asian economic growth to above 7 percent per annum against the global growth of below 3 percent. The growth trajectory would be similar in the case of many African countries although the magnitudes would differ. There is, thus, a strong incentive for the global investors to channel their funds for developing infrastructure and industries in African cities as the returns on investment would be significantly above those in high-income countries, trapped in low growth syndrome, with a large share of aging population.

The governments at sub-state level, public and semi-public agencies and local bodies should leverage their assets, including land to mobilise user revenue. For attracting investment from capital market and mobilising the savings of the common public, it would be important to float innovative instruments such as bonds, debentures, etc. This would necessitate strengthening and enhancement of technical and financial capacity of the local bodies, public and semi-private organisations to attract the needed private funds and build partnerships with private companies and financial intermediaries. The municipal governments may consider tapping the massive unutilized funds with pension agencies, life insurance companies, etc., for their innovative infrastructure projects through visionary leadership at the local level. This can promote entrepreneurship, increase competitiveness of towns, and usher in balanced regional development by strengthening urban-rural connectivity. All these would necessitate modification in financial regulations and reform in capital market for Africa's urban transformation.

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