

CHALLENGING THE MYTHS OF URBAN DYNAMICS IN SUB-SAHARAN AFRICA: THE EVIDENCE FROM NIGERIA

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Challenging the myths of urban dynamics in sub-Saharan Africa: the evidence from Nigeria

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Introduction

'By the year 2010, more than half of Nigeria's population will be living in urban centres . It is also estimated that by the year 2000 some 17 cities in Nigeria would have a population of one million people each. Lagos has a population of 15 million people in 2004' (Centre for Human Settlements and Urban Development (CHSUD) for UN Habitat, 2005: 3).

'The 2007 overall urbanization rate of the West and Central Africa region was 41.7 percent . Seven of its 25 nations had more than half their population living in urban areas. The West African subregion is projected to have an urban majority just before 2020' (UN Habitat 2008: 11).

'[for Nigeria in 2006] the UN Department for Economic and Social Affairs suggested an urbanization rate [level] of 49% in 2006 compared to the Africapolis estimate of 30%' (Africapolis Team, 2008, 100).

'urbanization [levels] in West Africa ... should reach 33.6% in 2010 and 34.6% in 2020' (Africapolis Team, 2008, 105).

In recent years two main positions have been adopted towards the interrelated dynamics of African urban populations and urban economies. One, as proposed by the World Bank in its 2009 World Development Report, *Reshaping Economic Geography*, is that rapid urban growth fuelled by in-migration is mainly positive because of the economic benefits of urbanization (eg agglomeration economies, innovation etc). This is argued for developing regions in general and for Africa where it is explicitly stated that there are not enough really large cities.¹ It should be noted that this position is a significant turnaround from the World Bank's earlier views on urbanization in Africa when they argued that, '... cities in Africa

¹ This hardly holds water for Nigeria, which probably has six cities with over a million people, compared to the UK with a population roughly half of Nigeria's, which has only two.

are not serving as engines of growth and structural transformation. Instead they are part of the cause and a major symptom of the economic and social crisis that have enveloped the continent' (World Bank, 2000, cited in Cohen 2004).

The other position is that urbanization is rapid but, not being backed by urban-based investment and much formal enterprise growth, it is something of a puzzle (eg Bryceson 2006; Jamal and Weeks 1993). The two positions are not entirely exclusive; there is considerable overlap in the detailed discussions around them about the problems facing urban planners and people seeking livelihoods in African cities, and the first position is somewhat hedged about with caveats about how the potential for urban economic dynamism is hindered by what are seen as institutional obstacles. Both positions also take, largely as read, that rapid urbanization *is* occurring across sub-Saharan Africa, in every country and every region.

One aim of this paper is to challenge this underlying assumption. There are a number of reasons why it is felt this needs to be done: first, given the size of mainland sub-Saharan Africa and the many states within it, all with their different physical, human and historical attributes, it is helpful to disaggregate and to examine what is actually happening and where. There is accumulating evidence that there are important variations occurring both within and between countries. Second, it is believed that there is insufficient attention paid to significant adaptations that have occurred over the past thirty years in urban migration patterns which have important effects on the nature and rapidity of urban growth. There are also other changes now occurring in urban demography which are reinforcing those effects. It is strongly argued that the frequent reiterations about how rapidly Africa is becoming urban are not only based on false perceptions, which need to be corrected, but also (and

more importantly) that they divert attention from, or prevent the recognition of, some really fundamental economic patterns and policy implications.

It is important to specify what aspect of urbanization is under discussion here.

Urbanization has huge implications for the ways in which people conduct their lives and its economic and demographic aspects are only part of the picture. Obviously it also has profound social and political effects which have been the subjects of intense study.

Environmental issues, both within and beyond the cities, are increasingly important fields of inquiry. Here, however, the focus is specifically on urban population dynamics within countries and what these might tell us about national economies. For these purposes, urbanization is here largely defined as the demographic process whereby an increasing share of the national population lives within urban settlements. It is also believed that settlements should be defined as urban only if most of their residents derive the majority of their livelihoods from non-rural occupations (eg not agriculture, fishing, forestry). It is acknowledged that this is a narrow conceptualization but it is regarded as necessary for current purposes.

The reason for this approach is that it focuses on the key structural economic element of urbanization in Africa (or anywhere) which is how the economically active population is shifting between rural- and urban-based livelihoods and settings. This issue will be developed further; at this point suffice it to say that this perspective is essential for the current analysis because it overcomes the frequently unrecognized point that ,while many African towns and cities are growing fast, so, too, are rural and national populations. In other words, most additions to urban populations in existing towns in Africa occur simply because urban birth rates are still very high (Cohen 2004; Potts 2010). While this generates

urban population growth it does not cause *urbanization* in the sense under discussion. For this to occur, the growth rate of the urban population must be significantly faster than the rural and the *level of urbanization* (the share of the population in towns) must be increasing. Thus, although the addition of large numbers of people to urban populations each year in most African countries is undoubtedly occurring and is associated with important political, social and environmental changes and a pressing need for new urban-based livelihoods, the rate at which the balance between rural and urban is shifting is not so clear-cut. Much of the shift, where it is occurring, appears to be increasingly derived from rural settlements being redefined as 'urban' having passed a definitional population threshold. Whether this is meaningful in terms of a structural understanding of urbanization depends on the economic character of individual settlements and their inhabitants.

Urban statistics: problems and projections

The United Nations makes regular projections for country populations and urban populations which are often the starting point for analyses of urbanization. However, the urban projections for the total share of urban population and for individual city populations in very many countries have been subject to a series of downward revisions from the 1990s and into the last decade (Brockerhoff 1999; Satterthwaite 2007, 2010; Cohen 2004). In other words, there is broad acceptance by UN statisticians that the former projections were wrong. This has been true for sub-Saharan African countries as well. The roots of the overestimations in this region lay in the extremely rapid urban growth experienced in many countries in the 1960s in particular, which for very many coincided with the ending of colonial rule. The coincidence of a strongly growing global economy and significant public

investment in new bureaucracies, infrastructure, urban-based productive enterprises, and the health and education sectors led to generally positive urban economic development which generated much employment and encouraged very rapid in-migration to towns. Several capital cities across Africa at this time experienced annual population growth of around 10% per year, including Nairobi, Lusaka, Abidjan and Dar es Salaam. However, the impact of the 1970s' oil price rises, the associated debt crises in many African countries, and the subsequent rounds of structural adjustment programmes in most countries from the 1980s on, transformed African economies. For many large towns the formal sector underpinnings of economic and employment growth dwindled with astonishing speed as public sector employment was cut and external competition from countries, usually in Asia, shut down or downsized huge swathes of formal productive enterprises. The cities informalized to such an extent that it is usually now suggested that most new jobs and housing in most sub-Saharan African urban areas are informal.

The impact of these changes on African urban population dynamics took a very long time to filter through to compilers of urban statistics at both local and global levels. For far too long the World Bank, national and local authorities and planners, and much of the urban literature presumed that growth rates continued to be so high ('unabated' was a frequently used term) that the urban *share* of the population in most countries was still rising very fast. There was evidence to the contrary but this was largely ignored. In part, this was because there was *not enough* evidence to the contrary: censuses of any sort became rather infrequent and some that were undertaken were unreliable and/or unavailable to most analysts as the results were deemed to be too politically awkward. On the other hand, this also meant that

there was not much hard evidence for the growth rates used to predict city sizes but the need to treat the estimates with caution was too rarely noted.

By the end of the 1990s and into the 2000s a significant number of African censuses had been completed, however, often with donor assistance. For those who cared to analyse these data², it was evident that there had been really significant downward shifts in urban population dynamics in many sub-Saharan African countries. Eventually, by the end of the first decade of the 2000s, the mainstream institutions which assess urban developments across the world, such as UN Habitat, have come to recognize that, even in Africa, urban growth has diminished. To some extent, it is noted, this is inevitable as the urban share of the population increases, since the relative size of the potential pool of rural in-migrants thus shrinks.

However, there is more to the shift in African urban dynamics than that and one purpose of this paper is to demonstrate how the strength of urbanization is still being over-estimated. The typical message coming from the influential mainstream evaluations of urban Africa is still that Africa is urbanizing rapidly, just not quite as rapidly as before. Urban evaluations nowadays tend to start with an estimate of how soon this or that country, or sub-region, will be 'more than half' urban as evidenced by two of the quotes at the start of this paper which refer to Nigeria and West Africa. However, the last quote suggests a very different scenario for West Africa: the urban share of the population is estimated to be about a third today and to rise *by a mere one per cent* over the next decade. This means that the region will remain predominantly rural for the foreseeable future and implies some fundamental changes have occurred in the urbanization process. The development implications of these two different

scenarios are immense and thus it is important to assess the evidence upon which they are based.

This paper has two main aims. First, it will indicate some of the gaps between recent publications on urban dynamics and what we can (or cannot) deduce from available censuses. The focus will be on sub-Saharan Africa. Second, it will address one of the major problems for analysing urban dynamics in that region and, indeed, for sub-Saharan Africa as a whole: what is happening in Nigeria? This is because Nigeria's population is so significant in sub-Saharan Africa and it has so many of the region's urban settlements, due to its long-established and varied pre-colonial urban traditions, that if people get it wrong about Nigeria, then this distorts the regional statistics for the whole of sub-Saharan Africa. As is well known, attempting to analyse Nigeria's population dynamics is extraordinarily difficult because the censuses have been so problematic and so politically charged. However, with the recent availability of new data sources on urban settlements in West Africa which use remote sensing it is now possible to attempt such an analysis.

Misunderstandings and mistakes about urban trends

As discussed, while UN urban projections have been regularly revised downwards, there is still a strong tendency to portray the shift from rural to urban populations as occurring rapidly in Africa. Yet, various scholarly analyses of urban population growth trends in developing countries have shown that increases in urban population have increasingly been derived from internal demographic forces (ie the excess of births over deaths in towns) and the re-definition of small rural settlements as urban as population thresholds are passed or as

² Although the full datasets are not always easy to obtain without visiting the country (and often not even then), some are openly available online from government statistical offices (eg Tanzania, Zambia) and

they are absorbed into physically expanding towns when their boundaries are redrawn (eg Cohen 2004; Montgomery et al 2003). According to Chen et al (1998), high urban natural increase in lower and middle income countries was the main component of city growth throughout the last few decades of the twentieth century, accounting for 60% of the growth of the median city. Yet the majority of the literature and teaching on urbanization in developing countries during those decades focussed on the role of rural-urban migration as the cause of urban growth. There is some logic in such emphasis because net in-migration is far more significant in terms of driving up the *level* of urbanization within a country since, in this respect, urban natural increase tends to be countered by rural natural increase. However, again in antithesis to some of the general perceptions of the nature of African urbanization in the latter part of the twentieth century, it has been estimated that *net* rural out-migration rates fell from 1.07 per thousand in the 1960s to 0.5 in the 1980s (Chen et al., 2004). Montgomery et al (2003: 91) speculated that this was due to the severe impact of structural adjustment programmes on sub-Saharan African economies in the 1980s, but also noted that this decline might be seen as surprising given that the region had generally low levels of urbanization, the implication being that the rates would be likely to pick up after the 1980s. Yet the evidence from a range of African censuses in the late 1990s and early 2000s suggest, if anything, the opposite – that net in-migration rates continued to decline (Potts 2009).

Despite these various studies (which include work by the United Nations), indicating that it makes sense to treat projected urban data and growth rates with caution, and that urban growth rates including those in Africa are slowing, it is still extremely common to find very high growth rates cited for individual cities and for it to be asserted that the level of

partial data can sometimes be found on dedicated census websites.

urbanization is still rapidly increasing. Tiffen (2003), for example, argues that sub-Saharan Africa has recently been experiencing *accelerated* rates of urban growth. The tendency is common within reports emanating from the United Nations itself as evidenced by two of the quotes at the beginning of this paper which include an estimated level of urbanization for West and Central Africa of 41.7% in 2007. Other claims from the UN Habitat *State of African Cities Report* for 2008 include:

‘The world’s shortest urban population doubling time, less than nine years, is found in the East Africa region, from 50.6 million in 2007 to a projected 106.7 million by 2017’ (p. 11).

‘In the foreseeable future the trend of the region’s rapid transition to urban majorities will continue. Of the 25 nations in the West and Central Africa region, seven had more than half of their population living in urban areas in 2007. In 2010 there will nine, by 2020 there will be 12’ (p. 11).

The 41.7% estimate from the 2008 *State of African Cities Report* was followed through in UN Habitat’s *State of the World Cities 2010/11* where it was reported that the region’s urbanization level had reached 44.6% urban by 2010. This implies an increase of 3% in the urban share of the population in three years and thus that, on average, the level was increasing at 1% per year. The urban population doubling time for East Africa claimed in the quote above translates to an averaged annual growth rate for its urban population of 7.8%.

Many of these claims or estimates are easily disproven with reference to census data. Taken individually or collectively, for example, the growth rates established by census enumerations of nearly all the major and medium towns in East Africa cannot possibly suggest growth of this sort (see data for East and southern African cities in Potts 2006). For both Kenya and Tanzania the census data for smaller towns are also often highly suspect and

significant overestimates (Potts 2006: 86-7). Indeed, tables generated from current (November 2010) UN Habitat online data suggest that the urbanization level in both these countries fell very sharply between 2000 and 2010.³ Such massive shifts of the population towards rural areas are infeasible: the explanation almost certainly lies in recognition of the overestimates in earlier decades. Other evidence from East Africa comes from Ethiopia, where the recent census found that its two largest cities, Addis Abeba and Dire Dawa, were growing more slowly than the national population and losing population share. For West Africa analysis of the significant number of new censuses at the end of the 1990s and into the 2000s shows that it is inconceivable that the region is urbanizing as fast as the quotes above suggest. Indeed, a number of large cities have been, as in Ethiopia, growing little faster or even more slowly than the population of the country in which they are located (see Potts 2009). In the demographic sense, these latter towns were counter-urbanizing. Both Mali and Cote d'Ivoire have been reported to have counter-urbanized overall during the 1990s (Tacoli 2001; Beauchemin and Bocquier 2004; as did Zambia from 1980 to 2000⁴ (Potts 2005). Benin and Niger both experienced only 1% or less increase in the total share of their populations in urban centres with populations of over about 10,000 people (Potts 2009). My analysis of recent census data also finds stagnation or decline in the urbanization levels in Senegal, Sudan and the Central African Republic.

The 2008 UN Habitat report on African cities actually contains a 'box' (p 74) which provides analysis and examples from West Africa⁵ which demonstrate how exaggerated are

³ The UN data for Kenya give the urbanization level in 2001 as 34%, falling to 22% for 2010; for Tanzania the level falls from 33% to 26%.

⁴ Results from Zambia's most recent census for 2010 were not available at the time of writing.

⁵ This was the work of Philippe Bocquier who was one of the contributors to the report (Bocquier, 2010, pers.comm). Excellent work on francophone African urbanization and migration undertaken by a group of French scholars including Bocquier (see, for example, Beauchemin and Bocquier 2004) has helped to

the claims still made for rapid rises in urbanization levels, including some of those cited above. Yet many such claims come *from the same report!* The box includes the following points:

A reversal of the traditional direction of migration that started as early as in the 1980s is at play in West and Central Africa.

Today, rising numbers of urban inhabitants who lost their jobs return to their villages ... If they fail (as many do) [to find self-employment in town] the village is their last resort and return migration the preferred survival strategy. Facing higher costs of living, even employed urban residents at times choose to return to rural areas where incomes may be lower but where food and housing are almost free...

... urban outmigration in Côte d'Ivoire is not only the result of circular migration. Primary migrants *born in urban areas* form a significant 25 percent of urban emigrants in 1993 ... [emphasis added]

Despite the clear message of this analysis, it is simply ignored by much of the rest of the report.

UN Habitat's most recent report on the *State of the World Cities 2010/11* acknowledges that urban growth rates are slowing across the world but yet again Africa tends to be seen as different and exceptional. Examples of misleading Africa-related analysis in this report include graphs (p.16) showing annual growth rates from 1990 to 2006 for Nairobi, Khartoum, Addis Abeba, Yaoundé, Lomé, Nakuru and Kampala to exemplify very fast growing cities. Yet most of the rates used are overestimates, sometimes very significantly so, and the figure for Lomé is a guess as it has had no census for nearly 30 years (see Table 1). It should also be noted that, with the exceptions of Yaoundé, Nairobi and Kampala, according to census data all of these cities had actually grown at *less than* the national population growth rate of the country in which they are located. Kampala's growth rate was

establish how urban dynamics in the region have been changing and slowing. For a trenchantly argued challenge to the urban trends for sub-Saharan Africa based on UN projections, see Bocquier (2005).

also only 0.4% more than that of Uganda in the 1990s. Even Nairobi, which has undoubtedly experienced decades of really significant in-migration, is now seeing some slackening in its relative growth rate which, for 1999 to 2009, was 0.9% above that of Kenya as a whole.

Table 1: Comparisons of city growth rates (%): State of World Cities 2010/11 data versus censuses

City/Data source	Nakuru	Yaoundé	Lagos	Lomé	Khartoum	Nairobi	Addis Abeba	Kampala
SoWC 1990-2006	13.3	5.7	5.7	5.3	5.1	4.9	4.1	4.0
Census data [interval]	2.9 [89-99]	5.7 [87-05]	2.9 [91-06]	2.4 (1981-2010)	2.6	4.9 [89-99] 3.9 [99-09]	2.1 [94-07]	3.7 [91-02]

Notes: SoWC data: State of World Cities 2010/11 Figure 1.1.2, p. 16. Census data are mainly derived from Thomas Brinkhoff, City Population, <http://www.citypopulation.de>, supplemented by national published or online census data. Some of the census figures have been updated or finalized, and may differ in small respects from figures derived from provisional census data published in Potts (2006, 2009). Data from Kenya and Cameroon's last censuses have only very recently become publicly available and so far urban figures are only available for Nairobi and Mombasa in Kenya.

Final examples of the tendency for authoritative reports to continue to promote the idea that African cities are growing at rates well above those suggested by census data come from UN Habitat's *State of the Urban Youth 2010/11*. This report says that Nairobi's population is estimated at over four million (p. ix), implying it had doubled since the last census in 1999 and was growing at about 7% per year. Yet the estimate is about a third more than the census enumeration for 2009 of 3.14 million. While the report does note that the new census had not been available, given the general trend for urban growth rates for large cities to decline, as the UN itself acknowledges, the presumption that it was likely that Nairobi's

growth was actually accelerating is indicative of the uncritical approach towards African urban projections which is felt to be so problematic and misleading. The report goes on to assert that Lagos is growing at 6-8% per year and that it will be the 'third largest mega-city in the world by 2015 (after Tokyo and Mumbai), with a population of over 25 million'. In this case the fact that this is completely contradicted by Nigeria's latest census of 2006 is directly addressed. (As shown in Table 1, the census recorded an annual growth rate for Lagos of 2.9% since 1991 and a 2006 population for Lagos Metropolitan Area of 8 million). It is simply stated, without any explanation, that this figure is 'deemed to be grossly underestimated'. As will be seen below, there are good reasons to believe that this was not the case.

What do we know about urban growth in Nigeria?

The difficulties facing those in African urban studies relating to the lack of reliable or recent data are frequently acknowledged (e.g., Gould 1995; Ouchou 1998; Cohen 2004; Potts 2010). Of the three largest cities in sub-Saharan Africa, for decades we have only been reasonably sure of the size of Johannesburg; Kinshasa's size can only be guessed and that of Lagos is deeply contested. Since it is probable that more than half of the total population of West Africa and about half of the region's urban population lives in Nigeria, it is obvious that mistakes about urbanization there will feed through to distort the entire regional picture. This is why the caveat, 'probable', is more than usually important. It is not just population size that makes Nigeria so interesting and important for African urban studies, however. It has the most significant and varied indigenous traditions of urbanization in sub-Saharan Africa too. The network of Yoruba settlements in the south west is centuries old, including

towns such as Ibadan, Ife, Oyo, Ilorin and Abeokuta. Nearby Benin City was the capital of a major pre-colonial state. In the Sahelian regions to the north there are numerous centres with Islamic roots such as Kano, Sokoto, Kaduna and Zaria. Nigeria has thus attracted much attention from urban scholars and there is a well established literature on its urban traditions and urbanization in general (eg Krapf-Askari 1969; Mabogunje 1962, 1968; Lloyd et al 1967; Cohen 1969; Peil 1991; Guyer and Denzer 2002; Lawal 1994). However, for decades, such studies have had to rely on guesses about the size of the towns since Nigeria's censuses have for so long been deeply contested. Often the disaggregated data have not been released. The problems relate to intense regional rivalries, particularly between the north and south of the country. As with censuses all over Africa and beyond, this is bound up with crucial questions about the allocation of resources since relative population size is an important determinant of the share of national revenues received by regions and cities. This latter point is, in itself, one of the reasons why estimates of city growth rates and population given out by city authorities have to be treated with extreme caution.

Nigeria's last colonial census was held in 1952. Since then the results of every census have been contested. The problems are detailed in a number of publications (eg Moriconi-Ebrard and Denis 2009; Africapolis Team, no date; Omoluabi and Levy 1992). In brief, the first post-colonial census in 1963 was greatly inflated, with many regions recording impossible numbers of men aged between 20 and 45. Many were fictitious and had simply been added in after the event. The 1973 census was annulled and not published. The 1991 census was also annulled although state and Local Government Area (LGA) figures were published; it recorded about 89 million people, around 30% fewer than had been assumed from projections. The 2006 census recorded 140 million people, which gives a national

annual average growth rate between 1991 and 2006 of 3.2%.⁶ This census has also been hotly contested and while state and LGA figures are available, no figures for particular urban areas have been released except for Metropolitan Lagos.

However, recently new data on the populations of urban settlements across West Africa have become available via Africapolis, the African element of a worldwide study of urban populations, e-Geopolis.⁷ This uses satellite imagery, cross-referenced with other data derived from a vast collection of censuses and various official publications, such as gazetteers and village directories, to provide population estimates for all nucleated settlements with over 10,000 residents. The methodology is painstaking and logical and is providing extremely valuable, publicly available, datasets. An ‘agglomeration’ (or nucleated settlement) is defined as any built-up area where the distance between buildings is less than 200 meters as measured from the satellite images. West Africa was the first region

⁶ This is a high growth rate but not totally out of kilter with Nigerian birth and death rate data. For example, the post enumeration survey of the 1991 census reported a national birth rate (per thousand) of 44.6 and death rate of 14 (which translates to a natural increase rate of 3.06% per year). For 1999, the Nigerian Population Reference Bureau reported a birth rate of 43 and a death rate of 13 (equivalent to an annual natural increase rate of 3%). The Nigerian Demographic Health Survey found the birth rate for S2002-2003 to be 41.7 and while no crude death rate is given, the infant mortality rate (IMR) which is such an important determinant of death rates in Africa was reported to have increased to 100 from 93 in 1991. The 2008 Nigerian Demographic Health Survey found the national birth rate had still changed little at 40.6 but IMRs had fallen back to the levels of the 1980s. Thus a natural increase rate of at least 3% for the 1990s and 2000s is indicated; this is also similar to those over a similar period for Benin, Niger, and Cote d’Ivoire although higher than for Ghana.

⁷ Although there are other urban datasets available now which are based on the use of satellite imagery, the e-Geopolis approach is by far the most reliable. The Global Rural-Urban Mapping Project (GRUMP) automatically ‘detects’ urban versus rural areas via LANDSAT but is poor at judging the boundaries of urban areas and thus often over- or under-estimates urban populations to significant extents. The degree of cross-checking between the imagery and other sources that characterizes and helps to validate e-Geopolis is absent. According to Africapolis, GRUMP has only been able to locate 780 agglomerations of more than 5,000 people in West Africa, compared to Africapolis’s 1,915. The sorts of errors associated with GRUMP are convincingly demonstrated via maps in the Africapolis Analytical Report on West Africa (Africapolis Team 2008:35-40).

Another dataset comes from the West Africa Long-Term Perspective Study (WALTPS), published in 1998. Based on national censuses, it focused primarily on assessing land organization and population dynamics, particularly migration. However, since it is based on censuses, it is unable to provide the cross-checking of these population records with the settlements visible from the air that Africapolis provides. For Nigeria, with its history of unreliable and unpublished censuses, WALTPS does not provide data, in any case (Africapolis, 2008:45).

to be covered in sub-Saharan Africa. Over 2,500 nucleated settlements which were either estimated, from census data, to have over 5,000 residents by 2000 or which could be seen on satellite imagery dating from between 2000 and 2008 to spread over more than 500 metres were located ‘down to the very last building’ (p. 12). From this 1,915 inhabited areas with more than 5,000 residents in 2000 were identified (p. 35). Settlements which were calculated to have more than 10,000 inhabitants are designated as urban; for 2000 it was estimated that 1,017 West African settlements qualified.⁸ The process involved much scrutiny of satellite images in order to define settlement boundaries and identify settlements by name using gazetteers etc.

Since Nigeria’s censuses have been so problematic, the cross-checking inherent in the Africapolis approach has allowed for a system which might be understood as ‘morphological verification’ of the 2006 census data for many urban areas.⁹ The team managed to obtain from Nigerian secondary sources population data for 2006 for 440 of the settlements it had identified which had over 5,000 inhabitants. These were cross-referenced with agglomerations for which their datasets also recorded population data from both the 1952 and 1963 censuses.¹⁰ They then created density models typical of particular types of settlements using data from across the West African region and Nigeria from which they could calculate the likely ‘real’ population of Nigeria’s towns disaggregated by their very different types of morphology (e.g. density of buildings, type of settlement, types of housing, average population densities etc).¹¹ Various examples with images are provided to

⁸ The precise methodology is explained in detail in Africapolis Team (2008:25-29). The study has a dataset of an astonishing 160,000 settlements/local administrative units across the region for which population data for one or more dates was available – the vast majority being rural villages.

⁹ The Africapolis reports term this the ‘morphological approach’.

¹⁰ Adjustments were made in the 1963 figures to remove any obviously fictitious cohorts of men.

¹¹ The modelling involved counting the number and type of dwelling units per square kilometre from high resolution satellite images and cross-referencing this with field data which gave average population

illustrate how this morphological verification led to new population estimates for Nigerian towns and it seems certain that it is safe to agree that ‘they are vastly more reliable than the official numbers obtained from censuses’ (p 87).

The results of the Africapolis methodology for Nigeria are remarkable. They demonstrate that many settlements have either scarcely grown since the 1960s or were simply grossly over-estimated at that point. Astonishingly, it was found that *the populations of nearly half of the smaller urban settlements assessed via their methodology were less than those recorded in the 1963 census*. Apart from the assignment of fictitious people, in some cases it appears that some urban populations at earlier censuses were over-estimated because outlying rural populations far beyond their boundaries were included. They also uncovered serious overestimates of populations in ‘the far north, in the Yoruba region, and in some areas of the Niger river delta’ (p. 85). On the other hand, the researchers found that the enumerated population for Lagos appeared to be reasonably accurate.

At the national level, the outcome of the Africapolis re-evaluation of the 2006 census in Nigeria is that its urbanization level, measured in terms of the UN convention which is to count the share of the population in towns over 20,000 residents, is 30%. Yet the UN Department for Economic and Social Affairs reports a level of 49% in 2006 (Africapolis Team 2008). The discrepancy is absolutely enormous: the UN, which bases its figures on the problematic Nigerian official data, estimates that 69 million Nigerians are living in such settlements, compared to the Africapolis estimate of 42 million: a difference of 27 million

densities for particular types of settlement; the technique also took into account how such densities vary across large settlements. Thus Warri in the Niger Delta, for example, has areas where the average density was calculated to be 9,000 people per km² while the average for the whole town was calculated at 5,100. Kaduna was assessed as having a higher average density of 8,720, with some areas as high as 30,000 per km². Abuja, which is noted to cover a vast area some of which is almost rural in nature, was assessed at 5,030 people per km². The Africapolis report suggests that in many cases the raw census data would

people.

Furthermore, the Africapolis data-sets suggest a very much lower current urbanization level and a slower rate of increase in the urbanization level for the whole of West Africa than most analyses assume, as indicated at the start of the paper. While 33.6% of the West African population are estimated to be resident in settlements with over 10,000 people in 2010, this is expected to rise *by a mere 1% over the next ten years*. These estimates and trends tally with the findings of my recent work on West African censuses which found sharply reduced growth in many large urban centres, and very gradual increases in the levels of national urbanization in several countries (Potts 2009, 2010). They also tie in with the general findings of other research on migration and urbanization in francophone West Africa (eg Beauchemin and Bocquier 2004). With so many different analyses drawing on different methods and data pointing to the same conclusion, it is surely now undeniable that, far from being rapid, the shift from rural to urban in this part of the world has usually become very gradual or stagnant or, in some cases, reversed.

Returning to Nigeria, since the Africapolis data for this country are in line with general regional trends, the case for using the data for comparative analytical purposes and as a guideline for current city populations is strengthened. Table 2 and Appendix 1 (see end of paper) present compilations of Nigerian urban population data across time drawn from various sources. These include census data and Africapolis estimates and census adjustments. As explained, so far only the urban population of Lagos has been released from the 2006 census. However, the provisional data for each Local Government Area (LGA) in Nigeria have been released. The large urban areas are comprised of a number of

have meant that many agglomerations had densities twice as high as regional norms (which was evidently suspicious).

LGAs and for many of the larger centres it has been possible to establish which 2006 LGAs are part of individual cities from a range of secondary sources.¹² The 2006 data for the 17 cities shown in Table 2 are my own calculations of their ‘enumerated’ census populations. The shape and area of the LGAs¹³ were compared with the areal extent of the built up area of the individual settlements, using Google Earth, to check for any obvious major inconsistencies. The LGA census record for each city can then be compared with the Africapolis estimates for 2000 and 2010. This means not only that it is possible to give a reasonably reliable idea of the size of many major Nigerian towns but also to indicate where the recent census appears to be reasonably reliable and where there are major discrepancies in urban tallies.

Analysis of the Nigerian urban data

As already noted, the Africapolis research team report that their methodology suggests that the population of Lagos enumerated in the 2006 census (8.048 million) was a reasonable estimate. Nonetheless, as shown in Table 2 their published estimates for the city for 2000 and 2010 imply that this was something of an underestimate and that a population of about 9 million in 2006 would have been more accurate. As already noted, the Lagos state government has been strenuously challenging the census, arguing that the city has far more people than it indicated. However, it is crucial to point out that the Africapolis data do not give any support to their argument that the city’s population was 15 million or even more in 2006 and the Africapolis ‘morphological’ estimates are far nearer the census figure. The Nigerian Population Commission has been equally strenuously arguing that the Lagos data

¹² Often these sources are recent engineering or service project reports for individual cities which list the LGAs which comprise the urban area.

are reasonable and has gone to the lengths of publishing various reports and ‘advertorials’ explaining and defending the census (National Population Commission 2007a, b). A major element of the controversy is always a north-south regional rivalry which, for the 2006 census, was most furiously waged over the question of the size of ‘Kano’ versus Lagos. This was largely pointless since most of the debate, partly waged online in blogs and newspaper editorials and articles, was based on a complete misapprehension: that the population enumerated for the enormous Kano State which comprises 44 LGAs, most of them largely rural in character, was that of Kano city which comprise eight of those LGAs. Kano State’s population was enumerated at 9.4 million but the LGAs comprising Kano city recorded around 2.8 million (see Table 2). Lagos State, by contrast, is much smaller and is largely comprised of the LGAs which make up the city of Lagos: the state population was about 9 million compared to the 8 million for the city. Since the government has not released urban figures, however, and it is not obvious which LGAs relate to which towns, it was perhaps inevitable that people would seize upon the data for the states and proceed to make entirely erroneous comparisons. In terms of central place functions, let alone sheer population size, there can be no doubt that Lagos city is far more significant than Kano city and has been since the 1950s (see Appendix).¹⁴

The Africapolis research also demonstrates that Kano city’s population had been inflated in the census, as evident from Table 2. The census ‘enumerated’ 25% more people (about half a million) in 2006 than the Africapolis estimate for the city in 2010. Its 1991 census figure also appears to have been considerably inflated. Other large towns where there are

¹³ These are available from Nigeria’s Postal Services website. <http://www.nipost.gov.ng/PostCode.aspx>

¹⁴ The politics of these figures are crucial in Nigeria and this is the main reason why the full data are never released. However, the problem outlined here might suggest that partial data can cause even more trouble.

apparent inconsistencies between some of the figures for 1990, 1991, 2000, 2006 and 2010 are Kaduna, Jos, Uyo, Maiduguri, Zaria, Oshogbo, Aba, Oyo, Abuja, Owerri, Enugu and Ife. However, the nature of the discrepancies varies and some are actually in tension with the general message from the Africapolis analysis which is that Nigerian census errors, when they occur, tend to overestimate urban populations. It appears that this is a fair generalization with respect to some of the major centres in the north of the country. Thus, apart from Kano, both Maiduguri and Zaria's census populations for 1991 and 2006 exceed the Africapolis estimates for 2000 and 2010 respectively. However, this is also true of Enugu in the south-east. In Enugu's case the discrepancy is huge: the 2006 census figure is 52% higher than the Africapolis estimate for 2010. Aba, also in the south-east, appears also to have been overestimated in these two censuses, very significantly so in 1991. Alternatively the figures for 2006 and 2010 may simply suggest that this city has stopped growing. Economic problems in Aba are discussed later in this paper.

By contrast, the traditional Yoruba towns of Oshogbo, Oyo and Ife seem to have been undercounted when compared to the Africapolis figures. This is surprising as the report suggests that growth in these sorts of Yoruba towns has been far from vigorous. These towns do not correlate with one or two LGAs so it proved hard to cross-check the data. However, it was evident from looking at recent satellite images and LGA maps that Oshogbo and Oyo towns each mainly comprise only part of one LGA which is why their 2006 'census' figures are for 'less than' the number in those LGAs (for further details see Appendix). In Ife's case the issue was apparent in the early 1990s but was less problematic by 2010. A more typical example of the tendency to overestimate Nigerian urban

Although it is evident that the census data are imperfect, if rural and urban figures for each state were released, this could assuage some of the jealousies and rivalries.

populations is Ogbomosho, another Yoruba town (which is not shown in Table 2 as it is not amongst the 20 largest towns (see Appendix)). Yet recent UN ESA figures show this as one of West Africa's (let alone Nigeria's) largest cities, with a population of over a million in 2010 (Africapolis 2008: 41). The Africapolis estimate for that year is about 293,000; my own estimate using the methodology outlined above is that it could not have been much more than 200,000 in 2006.

The apparent overestimation of Abuja's population in recent years is due to a familiar problem with new capital cities. The boundaries have been set so widely that very large numbers of rural people have been counted into the city population (Africapolis final report: 42).¹⁵ Precisely the same problem has existed with respect to assessing the growth of the urban population of Lilongwe, Malawi's capital city since 1977 (Potts 1985).

Turning to Table 3 (see end of paper), which presents three different sets of growth rates for these same 20 Nigerian cities calculated using census data or Africapolis data, the significance of these various errors and problems with Nigerian census data are further apparent. For example, the overestimation of Kaduna's population in 1991 yields a very low growth rate of 0.9% in the intervening years until 2006, compared to a very much more vigorous estimate of 3.4% per year over much the same period (1990-2010) by Africapolis. There is a similar issue for Zaria, Maiduguri and Aba. On the other hand, the censuses suggest too much growth in Owerri, Enugu and Ife. It is possible to make a reasoned explanation for all of the discrepancies but of far greater significance for the main issue under examination in this paper is the general pattern displayed by these data which is that

¹⁵ According to Africapolis, the administrative area of Abuja is 'made up of several agglomerations and 260 villages. The city of Abuja is not an agglomeration in its own right, and even when its population reaches the three million mark in 2020, population density will still be little more than 400 inhabitants per km², far lower than for any truly urban population' final report p 42..

so many of the estimates for the growth of individual cities, no matter how they are derived, are lower than the 3.2% growth rate of Nigeria's national population for 1991-2006.

Leaving aside Abuja, which is atypical of Nigerian urbanization, only four towns 'recorded' growth rates in excess of the national average. As discussed, one of these is known to be wrong because the 2006 count was clearly excessive: Enugu. The other three, Ife, Owerri and Jos, appear to have been undercounted in 1991; again the effect is to inflate the subsequent growth rate. The Africapolis figures for 1990-2010 suggest stronger growth but still estimate that 12 of the 20 cities did not exceed the national growth rate and were thus losing population share. The exceptions were Abuja, Warri, Uyo, Benin City, Port Harcourt, Sokoto, Kaduna and Owerri. Three of these are oil towns: Warri, Port Harcourt and Owerri. According to the Africapolis figures, for the past decade of 2000-2010 growth rates slowed further and only Benin City, Uyo, Warri and Abuja were estimated to have exceeded Nigeria's overall population growth rate. In other words, *four out of five of Nigeria's major towns were stagnating or losing population relative to the country as a whole.*

It is important to recognize that all these figures are estimates or census figures which have not been officially released or have been called into question. Analysis of such data cannot be a precise scientific endeavour, rather it is a search for discrepancies to document and explain and an attempt to identify overall patterns. It is contended here that the evidence from all the sources taken together is overwhelmingly in favour of the interpretation that urbanization in Nigeria has slowed dramatically.

Why is urbanization occurring so slowly?

The primary cause of reductions in urban population growth in Africa is the weak

performance of African urban economies and the very high levels of economic insecurity this means for the vast majority of urban people (Potts 2010, 2009, 2006, 1997). Nigeria has proved to be no exception. As with several other African countries, even though macro-economic indices have improved in recent years and GDP is growing, incomes are very unequally distributed. Poverty levels increased from 28% in 1980 to 66% in 1996. Extreme poverty was virtually non-existent in Nigeria's urban areas in 1980 (at 3%) but by 1996 about one quarter of city residents were in this category (Fourchard 2003, citing Federal Office of Statistics, 1999). Averaged GDP per capita figures just before the global financial crisis were only around the levels of the 1970s (Wallis 2007). The economic growth occurring is not due to economic developments within cities which deliver reasonable incomes to large numbers of urban residents. This is what is needed if cities are to attract *and retain* migrants. Most urban workers are very poor and their consumption levels are very low. This is true for many in the formal sector, let alone the informal sector. The formal public and private sector jobs which provided incomes at levels which allowed a modicum of security and a sense of a future in the city in the initial postcolonial decades were decimated by structural adjustment. Informal work has expanded to fill some of the gap, often through sheer necessity, but far too many of these jobs are characterized by little more than survival incomes. Huge numbers are in self-employed petty trade. Outside of domestic food trade, an increasing proportion of what is traded is imported, often from China. The backward linkages of trading into local production with associated multiplier effects are limited. In global terms, Nigeria's comparative advantages in urban-based productive enterprises are very limited, even though it has a large, cheap labour force. Highly competitive imports, usually from Asia and particularly China, have closed down

factories and associated service sector enterprises across the country. The scale of the problems is illustrated in the following paragraphs.

Official employment statistics for Nigeria for 2005 show that 840,000 people were working in the manufacturing sector, a mere 1.7% of the entire workforce. Sixty per cent were in agriculture. Commerce and hotels, on the other hand, accounted for 7,164,000 people, 15% of workers (National Bureau of Statistics 2006). In 2007 manufacturing accounted for 2.5% of GDP. Agriculture accounted for 32%, oil and gas for 38%, and wholesale and retail trade for 15% (National Bureau of Statistics 2008). The index for manufacturing employment in 2005 was 99.8 and for agriculture 166.7, compared to 100 in 1999 (National Bureau of Statistics 2006). A Core Welfare Indicators Survey was carried out in 2006 comparing rural with urban residents. Although it found that rural households were more likely than those in urban areas to classify themselves as poor (66% compared to 57%), rural people were more likely than urban residents to feel they were better off compared to the year before (41% compared to 34%). About 31% of both rural and urban residents felt they were worse off. Of those classified by the survey as poor, 29% in rural areas felt things were improving for them but only 15% of those in towns. The incidence of absolute poverty whereby households were having difficulties in satisfying their food needs was just as serious in the urban areas as in the rural areas. In rural Nigeria 15% of all households and 22% of poor households were struggling to feed themselves; in the urban areas the respective rates were 13% and 27% (ibid). Taken in the round, these data suggest that the welfare and living standards gap between rural and urban Nigeria is narrow, and that a strategy of migrating to town to improve your living standards would be risky. The difficulties faced by urban residents were far from confined to those in the informal sector.

Inflation in the five years before this survey was in the double digits each year. As a result, real incomes from formal sector pay declined as pay rises did not keep up. Lower income wage earners' pay fell by 64% between the beginning of 2003 and the end of 2005. For middle and upper income earners the respective falls in their real pay were 55% and 63%.¹⁶

A survey of household heads in 2002 in a central district of Ibadan found that a significant minority earned less per month than N3,000. Two thirds had incomes of *less than* N5,000 (then roughly equivalent to the global headline absolute poverty measure of a dollar a day). The minimum wage for staff at state institutions then was N7,500 per month. Most of those surveyed were petty traders, craftsmen or farmers (Fourchard 2003). The fact that an important earning strategy in this, Nigeria's second largest, city was farming is evidently worthy of note in relation to the structural economic patterns under discussion in this paper.

The urban employment and livelihood issues indicated by the data above are part of a long downward trend. In 1995, with reference to narrowing rural-urban income gaps across sub-Saharan Africa, I reported the following findings on Nigeria: that Jamal and Weeks (1993) calculated that the ratio of average unskilled wages to average rural household incomes was one to one in 1978-79; that Gefu (1992) found that the minimum wage reduced in real terms between 1981 and late 1990 by 90%; that Paul Collier (1988) calculated that, for the urban self-employed in the early 1980s, average real incomes fell so much faster than the incomes of rural households that by 1985 they were poorer than the average rural household; and that Peil estimated that the Nigerian minimum wage in 1989 (then N150 per

¹⁶ The data from the core welfare indicator research are reported in the Nigerian Statistical Fact Sheets available from the Nigerian Bureau of Statistics online. For the pay-related calculations the Nigerian Bureau of Statistics uses national pay grade levels GL01, GL08 and GL15 for the lower, middle and upper income wage earners. These are particularly representative of the public sector (National Bureau of

month) would buy ‘a total of one half tin of local rice, one tin of garri (dried cassava), one tin of powdered milk, a litre of groundnut oil, two small loaves of bread and six eggs’ (see Potts 1995: 248, 250). The impact of such changes on migrants in Nigerian cities were notably demonstrated by longitudinal research by Gugler (1991) in Enugu, who found that urban economic decline in the city meant that migrants were more likely to intend to leave Enugu in the 1980s than they had been in the 1960s.

There is also a wealth of evidence on the declines suffered by productive enterprises in cities due to foreign competition. Another severe problem is the very unreliable urban electricity supply throughout the country, meaning many enterprises have to use expensive generators, further undermining their competitiveness. It is estimated that 80% of Nigeria’s textile factories have closed (Green and Macnamara 2008, citing Alden) and 250,000 textile workers have lost their jobs because of foreign imports – equivalent to just under a quarter of the current manufacturing workforce. In the north of the country textile manufacturing was the only urban-based industrial sector of any significance, but much of this has now closed, exacerbating already very high levels of urban poverty (Burgis 2009). The south-east of Nigeria has a far more broadly based and dynamic tradition of domestic manufacturing. This includes the town of Aba, famed for its local small- and medium-scale (and sometimes handmade) shoes and clothes industries. Many of these used machinery imported during the 1970s and 1980s when the Nigerian currency was strong due to the oil boom. However, in recent years these have also been very badly affected by the ‘flood of cheap imports that has accompanied China's strengthening ties with the continent’ (Mahtani 2007). It is estimated that by 2007 half or more of the market for Aba’s shoes had been captured by east Asian imports: as one local manufacturer put it, ‘We are dying from China’

Statistics 2006).

(*Financial Times* 2007 dying). Similar problems have led to many industries closing in nearby Nnewi, which was known for its motor parts trade (ibid). Attempts by the Nigerian government to re-introduce protection for domestic textile manufacturing are widely circumvented by importers who re-certificate Chinese textiles as locally made (Burgis 2009). On the other hand, clothes manufacturers who did depend on certain types of high quality imported fabrics have suffered as these have become difficult to obtain, except through smuggling (Mahtani 2007). Nigeria has, like many other developing countries, tried to encourage foreign investment in manufacturing by setting up Free Trade Zones. There is one in Calabar, also in Nigeria's south-east. However, domestic manufacturers outside the zone argue that this also causes them to suffer from unfair competition from within their own country (Beattie 2007).

Conclusions

In 2004, Cohen suggested that, '[g]iven the historical connection between industrialization and urbanization, continued urbanization in Africa may only be possible if there is a sharp increase in economic development' (Cohen 2004: 48). This appears to have been a rather better prediction about African urbanization than many, more recent ones. There is evidence now from many sub-Saharan African countries of slowing or stagnating urbanization, defined in terms of a relative increase in the urban versus the rural population (Potts 2009, 2010; Beauchemin and Bocquier 2004). However, as demonstrated in the first section of this paper, acceptance of this changing dynamic, and its implications for understanding the contemporary economic geography of many African nations, is patchy amongst planners and academics and in the publications of the major agencies which are so

influential in shaping current understandings of urbanization and urban policies. Such publications frequently still reproduce urban statistics for Africa which are highly suspect; many can be shown to be downright wrong.

Nigeria's total and urban population is such a significant element of sub-Saharan Africa's – in the same way that China's population is for the world (see Cohen 2004) - that analysis of these urban phenomena for the region as a whole requires that efforts are made to assess what has been happening in Nigeria's towns. This is an area fraught with data difficulties and political disagreements. Nonetheless, there are now sufficient data sources to allow for a reasonable assessment of Nigeria's urban population. Careful triangulation between the various data available, including the very valuable new data on African cities produced by Africapolis, means that reasonable approximations of the country's current city populations can be made as well as analysis of where the latest census figures are (or are not) problematic. This, in itself, is a useful advance in knowledge about African urbanization in general. Of crucial significance, though, is that the data indicate that Nigeria's level of urbanization overall is far lower than assumed in official, and agency, reports. The Africapolis estimate is 30% compared to a UN estimate of 49%. Africapolis data also suggest that this proportion will only increase by 1% in the next decade.¹⁷ This tallies with the trends emerging from census figures across West Africa (Potts 2009) and from Africapolis evaluations of urban populations in other West African countries. It is argued in this paper that the evidence for the reliability of the Africapolis data is strong. So large is the discrepancy for Nigeria that using UN data will distort the urban figures for West Africa

¹⁷ Were this trend to continue it would take another 200 years before Nigeria became 50% urban. Of course, this is a ridiculous projection: the trend may accelerate, decelerate or stop as economic forces change. Nonetheless, it is useful to point this out simply as a counterpoint to the endless claims about how soon Africa will be mainly urban.

as a whole and even, although to a lesser extent, those for sub-Saharan Africa. The case for re-evaluating urban trends in general across Africa is thus extremely strong.

The key elements in the new urbanization trends are the changing nature of rural-urban migration, and rural-urban social and economic linkages, which have been adapting to the drastic fall in urban real incomes and living standards in sub-Saharan Africa for decades.

These changes are evident from both small- and large-scale migration surveys and censuses across the region and are reviewed in detail in Potts (2010), alongside discussion of how these trends have played out in the case of Zimbabwe. The very weak urban economies and high levels of poverty which have come to typify most sub-Saharan African cities have reinforced long established patterns of circulation so that although there is still much in-migration to towns, this is strongly counter-balanced by major outflows (Potts 2010a; Potts 2006; for Zimbabwe see Potts 2010a and b; for Zambia Potts 2006;). Rural-urban migration to African towns has always involved a complicated mix of short, medium- and long-term migration as well as permanent migration. In the 1960s and 1970s the evidence was that long-term and permanent migration was becoming more common but from the 1980s the length of stay of many migrants shortened as short- and medium-term migration became more prevalent again.

There are, of course, other dynamics involved but space precludes discussion of them here. Changes in fertility¹⁸ and increasing urban-urban migration are two factors. As

¹⁸ As noted earlier in this paper, the impact of this on natural increase in African towns has been far less than is often assumed as urban *birth rates* have tended to stay high. Nonetheless, the Africapolis researchers point out that, 'one of the major contradictions among the global models used by international institutions... [is] that these models have a tendency to overestimate the population of large agglomerations at the expense of small ones. Since the birth rate is falling fastest in large agglomerations, this overestimation should lead to predictions of a deceleration in the urbanization rate, in part as a result of population growth in rural areas, where the birth rate is falling more slowly. Yet, the UN forecast suggests precisely the opposite scenario, a prediction that defies logic' (Africapolis Team, 2008:105). As the gap

intimated in the introduction, population thresholds at the bottom end of the urban hierarchy are often complicated when consideration is also taken of structural economic definitions of ‘urban’ (for further discussion of this factor, see Potts 2010).

The key significance of these findings, for Nigeria and for other African countries where urbanization trends have become much slower or are stagnating, is what they imply for development patterns and policies. First, it appears that for much of Africa, the population is going to stay mainly rural for the foreseeable future, in direct opposition to the usual claims. The claim of rural areas for national development resources thus remains strong. On the other hand, the devastating impacts of liberalized economic policies on African urban economies are writ much larger by recognizing these trends, rather than being obscured by presumptions of major shifts towards urban livelihoods, even if largely informal. The

between rural and urban birth rates does now appear to be growing, according to the most recent Demographic Health Surveys in some African countries, this will further depress the rate of urbanization.

Table 1: Comparisons of city growth rates (%): State of World Cities 2010/11 data versus censuses

City/Data source	Nakuru	Yaoundé	Lagos	Lomé	Khartoum	Nairobi	Addis Abeba	Kampala
SoWC 1990-2006	13.3	5.7	5.7	5.3	5.1	4.9	4.1	4.0
Census data [interval]	2.9 [89-99]	5.7 [87-05]	2.9 [91-06]	? [none since 1981]	2.6	4.9 [89-99] 3.9 [99-09]	2.1 [94-07]	3.7 [91-02]

Notes: SoWC data: State of World Cities 2010/11 Figure 1.1.2, p. 16. Census data are mainly derived from Thomas Brinkhoff, City Population, <http://www.citypopulation.de>, supplemented by national published or online census data. Some of the census figures have been updated or finalized, and may differ in small respects from figures derived from provisional census data published in Potts (2006, 2009). Data from Kenya and Cameroon’s last censuses have only very recently become publicly available and so far urban figures are only available for Nairobi and Mombasa in Kenya.

shocking poverty and economic insecurity faced by most African urban dwellers and workers requires major policy interventions to improve not just the urban infrastructure, but urban incomes and employment. There seems little hope that this is going to occur under liberalized economic policies which have had such negative outcomes in African cities. These latter points may seem to conflict with that about continued rural population dominance. I would not agree. Development policy should never be based on dualistic simplifications of economies (rural/urban; traditional/modern etc). Instead it should strive to raise the productivity, incomes and welfare of people in both rural and urban sectors. These are, in any case, so interwoven in Africa due, in part, to the nature of circular migration and to longstanding social, economic and political linkages between rural and urban areas, that this has always to be taken into account. If economic trends develop that generate urban employment which provides more secure and better incomes, then long-term rural-urban migration is likely to re-emerge as a major economic and demographic force. This is a very different scenario from GDP growth where most of it is generated in small (usually resource-based) enclaves, very often relating to oil production, and/or is being largely captured by tiny elites. In Nigeria's case, where exports are dominated by oil, its size, very large population, and its complex urban system, make its development geography far more complex than oil economies like Gabon, Angola or Congo. Nonetheless, Nigeria's urban-based economic development is weak, and remains at odds with its improved general economic growth rates as measured by GDP, and recent analysis of national policies for improving the distribution of the benefits of its economic growth are highly critical (Adogamhe 2010).

The World Bank's report on *Reshaping Economic Geography* emphasised how

‘development’ could be facilitated by urbanization and how rural-urban migration should be seen as a positive phenomenon. However, this is putting the cart before the horse.

Urbanization triggered by positive economic change which creates urban-based investments and secure employment is likely to have developmental outcomes. But, if global economic forces have triggered negative economic changes in these respects, as they have in so many African cities, then urbanization, *per se*, is unlikely to be so developmental. Rural-urban migration is even more of a dependent variable in these equations: it cannot generate jobs, or better incomes, or urban investment, or infrastructure on its own. Indeed, it is precisely because it is not an *independent* variable that it has changed so much in contemporary Africa, including in Nigeria.

Table 2: Population estimates for Nigeria's 20 largest towns: selected years 1952-2010 ('000s)

	Town	1952 census^a	1963 census (adj)^b	1970^c	1990^c	1991 census^d	2000^c	2006 census^e	2010 estimate^e
1.	Lagos	272	542	1,266	6,100	5,195	8,053	8,048	10,006
2.	Ibadan	459	427	998	1,836	1,835	2,490	2,551	3,144
3.	Kano	127	255	882	1,448	2,167	1,855	2,826	2,262
4.	Kaduna	39	114	322	699	994	1,030	1,129	1,361
5.	Benin City	54	89	137	461	763	848	1,124	1,235
6.	Port Harc	72	152	238	571	703	884	1,006	1,197
7.	Jos	na	na	293	557	510	767	822	977
8.	Ilorin	41	172	222	462	532	666	778	870
9.	Uyo	na	na	118	304	? ^f	488	451	672
10.	Maiduguri	57	110	184	361	618	507	733	652
11.	Zaria	54	90	183	357	612	499	702	641
12.	Warri	na	na	768	234	363	409	557	583
13.	Oshogbo	123	175	307	415	251	482	<288	549
14.	Sokoto	na	na	119	267	330	400	428	533
15.	Aba	58	118	149	294	500	413	531	533
16.	Oyo	72	95	182	314	370	412	<136	511
17.	Abuja	na	na	21	128	na	318	779	507
18.	Owerri	na	na	118	254	120	372	402	490
19.	Enugu	63	123	151710	279	408	378	723	477
20.	Ife	111	103	129	242	187	333	355	423

Notes to table: a. 1952 final census figures taken from Africapolis (2008). b. 1963 census figures adjusted for observable inflation by Africapolis (Africapolis 2008). c. Decadal estimates are from Africapolis online dataset for Nigerian urban settlements. d. 1991 provisional census figures: source Brinkhoff e. 2006 estimates derived by author from provisional census data for Local Government Areas published by Nigerian States cross-referenced with various other sources to match, where possible, LGAs with specific urban settlements. Match between urban built up area and LGA boundaries cross-checked on Google Earth. Some of these census figures are incompatible with the Africapolis estimates for 2000 and 2010 (see text) and, where this is the case, the Africapolis estimates are likely to be more reliable. f. Population of Uyo in 1991 census reported as 58,369 which is incompatible with 2006 census or Africapolis estimates.

Table 3: Annual average growth rate estimates for selected Nigerian towns in past 20 years (%)

Town	1991-2006 (census) a	1990-2010 (Africapolis)	2000-2010 (Africapolis)
21. Lagos	3.1	2.5	2.2
22. Ibadan	2.3	2.7	2.4
23. Kano	1.8	2.3	2.0
24. Kaduna	0.9	3.4	2.8
25. Benin City	2.7	3.9	3.8
26. Port Harcourt	2.5	3.8	3.0
27. Jos	3.4	2.8	2.4
28. Ilorin	2.7	3.2	2.7
29. Uyo	? b	4.0	3.3
30. Maiduguri	1.2	3.0	2.5
31. Zaria	1.0	3.0	2.5
32. Warri	3.0	4.7	3.6
33. Oshogbo	<1.0	1.4	1.3
34. Sokoto	1.8	3.5	2.9
35. Aba	0.4	3.0	2.9
36. Oyo	Negligible or negative	2.5	2.2
37. Abuja	?	7.1	4.8
38. Owerri	8.8	3.4	2.8
39. Enugu	4.1	2.7	2.4
40. Ife	4.6	2.8	2.4
NIGERIA	3.2		

Notes to table: a. Intercensal period used to calculate AAGRs is 14.33 years as censuses were held in different months.

Appendix: Population estimates for Nigeria's largest towns: 1950-2010

Town	1950 ^a	1952 census ^b	1960 ^a	1963 census (adj) ^c	1970 ^a	1980 ^a	1990 ^a	1991 census ^d	2000 ^a	2006 census ^e	2010 estimate ^a
41. Lagos	290539	272,000	659504	542,100	1266015	2778913	6100000	5,195,247	8,052,958	8,048,430	10,005,916
42. Ibadan	521342	459,200	728849	426,800	997646	1353264	1835645	1,835,300	2,489,974	2,550,593	3,144,304
43. Kano	92394	127,300	458733	255,300	882365	1130421	1448211	2,166,554	1,855,340	2,826,307	2,262,469
44. Kaduna	27739	38,800	148524	114,300	322225	474650	699178	993,642	1,029,918	1,128,694	1,360,658
45. Benin City	49081	53,800	77670	89,100	136510	250959	461361	762,719	848,162	1,124,000	1,234,963
46. Port Harc	78061	71,700	145388	152,000	237975	368546	570758	703,421	883,919	1,005,904	1,197,080
47. Jos	101862	na	193416	na	293364	404112	556671	510,300	766,821	821,618	976,974
48. Ilorin	31604	41,000	116127	171,600	221779	319972	461640	532,089	666,031	777,667	870,422
49. Uyo	3928	na	41677	na	117884	189342	304150	See Table 2	488,318	451,128	672,485
50. Maiduguri	45128	56,800	110708	110,200	183629	257548	361223	618,278	506,632	732,696	652,041
51. Zaria	45128	54,000	110707	90,400	183114	255801	357340	612,257	499,185	701,468	641,031
52. Warri	16416	ma	39835	na	76771	134046	234051	363,382	408,664	557,398	583,276
53. Oshogbo	115112	122,800	159038	175,200	306700	356586	414587	250,951	482,024	<288,455	549,459
54. Sokoto	47123	na	77104	na	118683	177964	266857	329,639	400,151	427,760	533,444
55. Aba	50793	57,800	96924	117,700	149240	209605	294388	500,183	413,464	531,340	532,539
56. Oyo	68636	72,200	88404	95,400	181834	238874	313806	369,894	412,245	<136236	510,683
57. Abuja	5364	na	9392	na	20954	51867	128387	na	317,800	? see text	507,213
58. Owerri	54559	na	80182	na	117689	172647	253268	119,711	371,537	401,873	489,806
59. Enugu	55607	62,800	102160	122,600	151710	205655	278782	407,756	377,911	722,664	477,041
60. Ife	72197	110,800	94910	103,000	128618	176583	242435	186,856	332,845	355,341	423,254
61. Onitsha	67999	77,000	126603	152,600	176024	215950	264931	350,280	325,022	na	385,113
62. Akure	35897	na	53644	na	81076	123132	187003	239,124	284,007	na	381,010
63. Okenne	27285	na	60047	na	99647	140528	198481	312,775	280,882	na	363,,282
64. Abeokuta	74612	84,500	139010	167,500	188515	223114	264063	352,735	312,528	na	360,992
65. Katsina	46921	na	83865	na	120899	158945	208964	259,315	274,725	na	340,485

Town	1950 ^a	1952 census ^b	1960 ^a	1963 census (adj) ^c	1970 ^a	1980 ^a	1990 ^a	1991 census ^d	2000 ^a	2006 census ^e	2010 estimate ^a
66. Bauchi	11497	na	25668	na	47526	81213	138778	206,537	237,145	na	335,513
67. Makurdi	13898	na	35867	na	64028	97600	148776	151,515	226,786	na	304,796
68. Lokoja	11555	na	18532	na	27384	36622	49011	na	242,823	na	304,105
69. Jimeta Yola	22281	na	27865	na	43158	73257	124349	141,724	211,075	na	297,800
70. Calabar	44302	na	58283	na	69000	83783	134540	310,839	216,044	na	297,547
71. Ogbomosho	44077	139,600	64082	268,300	89428	122626	168150	433,030	230,573	c.200,000 see text	292,996

Notes to table: a. 1950 estimate from Africapolis data for Nigerian urban settlements. b. 1952 final census figures: source Africapolis. c. 1963 census figures adjusted for observable inflation by Africapolis. d. 1991 provisional census figures: source Brinkhoff e. 2006 estimates derived by author from provisional census data for Local Government Areas published by Nigerian States cross-referenced with various other sources to match, where possible, LGAs with specific urban settlements. This is only possible for the larger urban areas. Match between urban built up area and LGA boundaries cross-checked on Google Earth. Some of these census figures are incompatible with the Africapolis estimates for 2000 and 2010 (see text) and, where this is the case, the Africapolis estimates are likely to be more reliable, except for Oshogbo, Oyo and Ogbomosho (see text for explanation)