Cities as a Strategic Resource: Guideline for Ghana's National Urban Policy Revision

Cities as a driver of sustainable and inclusive economic transformation

A report by the Ghana Urbanisation Think Tank









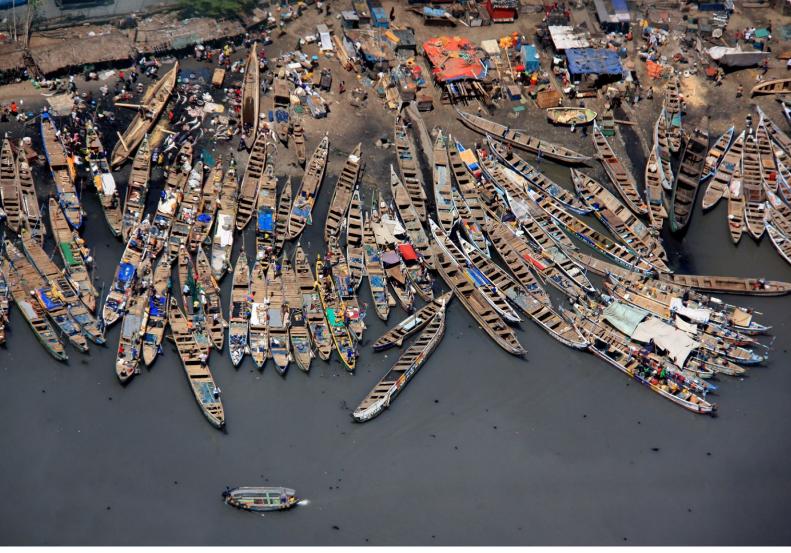


Photo credit: schusterbauer.com

Corresponding author

Anton Cartwright, African Centre for Cities, Upper Campus, University of Cape Town, Rondebosch, 7701, South Africa (crtantoo5@myuct.ac.za).

Citation

Ghana Urbanisation Think Tank (GUTT), 2019. Cities as a Strategic Resource: Guideline for Ghana's National Urban Policy Revision. Paper for the Coalition for Urban Transitions. London and Washington DC. Available at: https://urbantransitions.global/publications/

Coalition for Urban Transitions c/o World Resources Institute 10 G St NE Washington DC, USA

Ghana Urbanisation Think TankMinistry of Local Government and
Rural Development
P.O. Box M. 50

Accra, Ghana

African Centre for Cities

Level 2, Environmental and Geographical Science Building, Upper Campus University of Cape Town Rondebosch, 7701, South Africa

Acknowledgements

The Ghana Urbanisation Think Tank (GUTT) is grateful to Wayne Shand, Hastings Chikoko, Catlyne Haddaoui, Tom Lindsay, Gifti Nadi, Andrew Tucker, Edgar Pieterse and Issahaka Fuseini for comments on an earlier draft and to Alma Viviers for the tables and figures.

Dan Inkoom, Sylvanus Adzornu, Issahaka Fuseini, George Owusu, Prosper Dzansi, Eli Kuadey, Pamela Nutsukpo and Marin Agyenyo were integral to the running of the GUTT and providing local context. The GUTT is supported by the Coalition for Urban Transitions, a special initiative of the New Climate Economy supporting national governments in accelerating economic development and tackling dangerous climate change by transforming cities.

This report was edited by Roo Griffiths and designed by Jenna Park.

Disclaimer

This Guideline report has been collated by Anton Cartwright from the African Centre for Cities based on the deliberations of the GUTT. The views reflected do not necessarily reflect the views of the wider membership of the Coalition for Urban Transitions or UK aid. This material has been funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.



This material has been funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

Table of Contents







9

33

1. Introduction

6



2. The Ghana Urbanisation 13 **Think Tank**



3. NUP Revision Guideline 15

- 3.1 From rising inequality to social inclusion19
- 3.2 Allow cities to drive the low-carbon structural transition 22
- 3.3 Develop local fiscal capacity to enhance revenue 29



4. Safety-Checking the Shift in Industrial Strategy



	_	_	
	C	lusion	10
	I ODC	IIICIAN	/111
,	CULL	IUSIUII	40

Appendix A	44
tppcriaix / t	7.7

Appendix B 46

Endnotes 48

Select Acronyms

1D1F One District One Factory

AFOLU Agriculture, Forestry, Other Land Use

BRT Bus Rapid Transit

CUT Coalition for Urban Transitions

ECG Electricity Company Ghana

GAMA Greater Accra Metropolitan Area

GDP Gross Domestic Product

GHAFUP Ghana Federation of the Urban Poor

GHG Greenhouse Gas

GUMPP Ghana Urban Management Pilot Project

GUTP Ghana Urban Transport Project
GUTT Ghana Urbanisation Think Tank

GVA Gross Value Add

ICT Information and Communication Technology

IMF International Monetary Fund

KNUST Kwame Nkrumah University of Science and Technology

LUSPA Local Government Capacity Support Project
LUSPA Land Use and Spatial Planning Authority

MLGRD Ministry of Local Government and Rural Development

MMDAs Metropolitan, Municipal and District Assemblies

NITS National Interconnected Transmission System

NUP National Urban Policy

OECD Organisation for Economic Co-operation and Development

PPP Public-Private Partnership
PPP Purchasing Power Parity

PSUP Participatory Slum Upgrading Project

REMP Renewable Energy Master Plan

SAM Social Accounting Matrix

SDG Sustainable Development Goal

SNPAS Street Naming and Property Addressing System

TAC Technical Advisory Committee
UDG Urban Development Grant

UN-Habitat United Nations Human Settlement Programme

VAT Value Added Tax

VRA Volta Region Authority

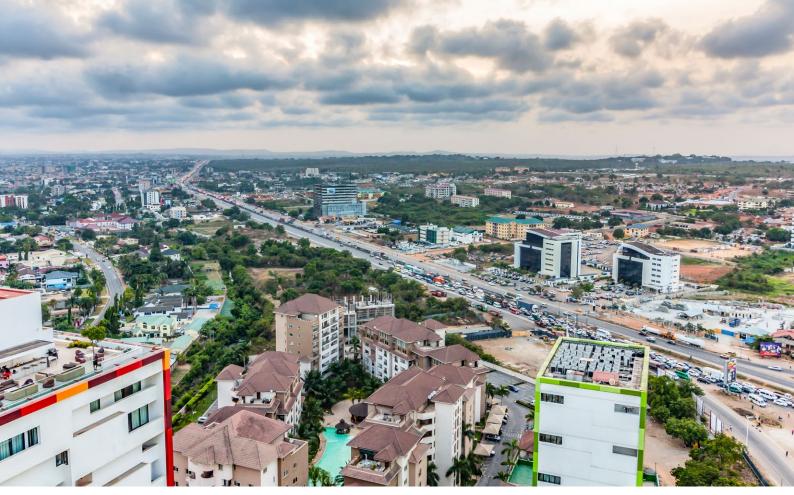


Photo credit: Frank Herben

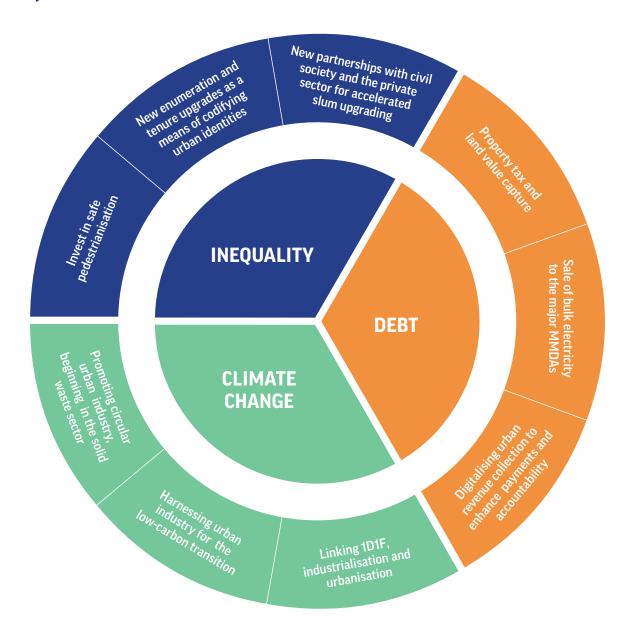
Executive Summary

As a regional pioneer, Ghana is busy revising the National Urban Policy (NUP) it released in 2012. The original NUP intended to, "Comprehensively intervene in the urban sector to facilitate and promote the sustainable development of Ghanaian cities and towns ... and promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions, and a sound living and working environment for all people to support the rapid socio-economic development of Ghana." The NUP was organised around 12 "policy objectives" with corresponding "initiatives" and "activities", covering finance, economic development, the urban environment, safety and security, climate change adaptation and mitigation, planning and spatial management. Indeed, it is difficult to think of a major urban innovation or idea that has not been planned, trialled or implemented somewhere in Ghana over the 60 years of independent rule.

A review of Ghana's NUP over its first six years revealed many successes, but also some limitations and an overly complex urban policy landscape that sees many urban communities established prior to provision of spatial planning and bulk services. The critical need at this stage of Ghana's urban development is to cut through the multiple layers of urban policy and strategy and coordinate the public and private investments that seek to develop Ghana's cities.

This document provides a guideline to the NUP revision being undertaken by the Ministry of Local Government and Rural Development. It aims to bring together the many actors and multiple urban development initiatives already underway in Ghana around the role of cities in addressing three national risks – inequality, climate change and fiscal instability. Each of these risks holds the potential to undermine the development gains Ghana has made since the 1990s. However, a coordinated response to them could tackle the vagaries of unplanned urbanisation, including congestion, sprawl, localised air pollution, flooding, social exclusion and lock-in to high carbon development pathways.

Summary of Ghana's NUP Revision Guideline



The NUP Revision Guideline is organised around the role of planned multi-actor urban development in addressing these three risks.

Rising inequality and the co-evolution of poverty, urban sprawl and insecure tenure in Ghana risk making governance untenable. Reasserting government influence on market economies, particularly the land market, in ways that are strategic, productive and generate socially desirable outcomes, is a global challenge that Ghana's government will have to engage if it is to avoid the default whereby urban expansion exacerbates national inequality. In the short term, social inclusion in Ghana's cities can be promoted through:

- i. Investing a greater portion of the roads budget in safe pedestrianisation;
- ii. Codifying urban identities through new enumeration and tenure upgrades;
- iii. New partnerships with civil society and the private sector for accelerated tenure upgrading and service delivery.

- Climate change threatens the development gains of all countries and demands new approaches to industrialisation. Ghana is in the process of building its industrial sector in the hope of creating employment and improving its balance of payments. It has the great advantage of doing this with full knowledge of the urbanisation trend and with rising awareness of the implications of climate change for the global economy. Ghana's transition to an industrial, climate-resilient society will not succeed unless industrialisation and urbanisation are linked to generate income and jobs through low-carbon manufacturing. This can be achieved by:
 - Linking production in the One District One Factory programme with the demand for construction materials, water, electricity and goods in rapidly growing urban centres;
 - Ensuring that urban industry takes advantage of recent innovations and associated price drops in the renewable energy and low-carbon sector, while supplying urban needs;
 - iii. Promoting circular urban industry, beginning with the solid waste sector.
- Ghana is in the midst of a fiscal expansion phase that cannot be financed by commodity revenues on their own. The viability of Ghana's "post-International Monetary Fund era" and "Ghana Beyond Aid" status depends on new streams of revenue from and for cities. During this phase, public debt and the risk of debt default can be managed by building local fiscal capacity that will tax the urban boom while simultaneously tackling urban sprawl and aligning investments in public infrastructure. In doing this, Ghana will fulfil its long-standing devolution ambition. Specific short-term steps that support this outcome include:

- Enhancing property tax and land value capture off the back of tenure upgrades;
- ii. Selling bulk electricity to metropolitan cities, and permitting these cities to manage their own grids and their own revenue collection;
- iii. Accelerating slum upgrading and service delivery through new partnerships with citizens, civil society and the private sector.

By focusing on the role of cities in addressing three national risks, the NUP Revision Guideline does not intend a radical rewrite of urban policy. Instead, it provides the multiple efforts at sustainable urban development with the coherence that flows from a shared sense of strategic vision. Where successful, Ghana's cities will not only save an estimated 18.4MtCO₂e per annum and establish a regional precedent but also be well placed to benefit from the global finance and technological innovations that are being mobilised to support implementation of the Sustainable Development Goals and the Paris Agreement. In the process, Ghana's cities will transition from a political convenience to a strategic resource for national development.

Where cities are placed at the forefront of both climate and industrial ambition, synergies between industrial development and low-carbon climate resilience are possible. A proactive strategy, built around renewable energy, electrification and low-carbon cities and urban industry, would realise new investment opportunities. In the process, Ghana's industrial and urban strategies would unlock the economic and environmental value of climate change mitigation actions and related economic and non-economic co-benefits.

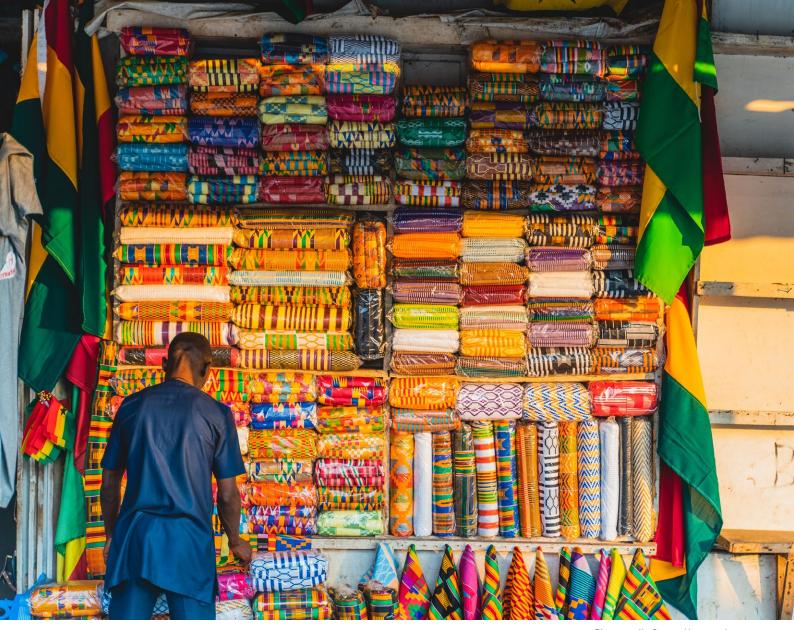


Photo credit: Steven Harewood

1. Introduction

The rapid growth of Sub-Saharan Africa's cities is leading to a reconfiguration of the continent's political and economic map imposed through colonialism over a century ago. In the process, the region's urban areas are unlocking new opportunities for their countries and citizens, shifting the balance of power within countries, and recalibrating Africa's contribution to global issues.

The West African country of Ghana is a pioneer in this process. With a population of 29.77 million, 56% of whom lived in urban areas in 2018,² Ghana is one of Africa's most successful

multi-party democracies. The country has two constitutionally mandated spheres of government (national and local), an independent judiciary and a diverse and free media, and has undergone seven elections and three peaceful transfers of power since independence in 1957. A stable political environment since the early 1990s has assisted the country in making remarkable economic and development progress (Table 1). Gross national income per capita increased from US\$340 in 2000 to US\$2,130 in 2018 (Atlas method, 2018 prices), and in 2017 Ghana's economy grew at 8% – the second fastest rate on the continent. Economic growth is forecast to remain above 6% in 2019.³

Table 1

Remarkable progress was made on most development indicators in Ghana between 1990 and 2018.4

Development indicator	1990	2018 (unless specified)
Gross national income (Atlas Method US\$ billions)	5.85	63.36
Tax revenue (% of GDP)	11.4	18.3 (2017)
Inflation	31.2	10.2
Urban population (% of total)	36.4	56.1
Poverty headcount at US\$1.90 per day (2011 PPP) (% of population)	48.8	13.3
Life expectancy at birth	57	63 (2017)
Births per 1,000 women aged 15-19	110	67 (2017)
Mortality rates at birth per 1,000 live births	79.3	35.7 (2017)
Primary school enrolment (% of total)	71.6	102.5
Urban access to improved water (%)		93 (2015)
Access to improved sewerage (%)		22.5 (2015) ^a
Immunisation against measles (% of children aged 12-23 months)	61	95
Primary completion rate (% of relevant age group)	66	94
Secondary school enrolment (% of total)	36	72
Total CO _{2e} emissions (MtCO ₂ e)	25.34	42.15 (2016)
GHG emissions per capita (MT per capita excluding AFOLU)	0.26	0.7 (2016)
GHG emissions per capita (MT per capita including AFOLU)	1.73	1.49 (2016)
GHG emissions per GDP unit (kg CO ₂ e /constant 2010 US\$)	2.10	0.87
Forested area (1,000 km²)	86.3	93.7 ^b

Notes:

Ghana is also one of Africa's "early urbanisers"*

– that is, it has experienced long-running
urbanisation trends and advanced transition in
fertility rates, which have led to a slowdown in
population growth from 2.9% in 1990 to 2.2%
in 2018 and improved dependency ratios.⁶

Urbanisation has been an important part of Ghana's emergence as a middle-income liberal democracy. It has enabled higher levels of economic productivity, reduced the per capita cost of service provision and generated new sites for ethnic integration.⁷

a Excludes pit latrines and shared toilets.

b While World Bank data point to afforestation, other sources, such as World Resources Institute⁵, suggest deforestation has accelerated significantly over the past five years, with a 60% increase in deforestation rates in 2018–2018.

^{*} The Organisation for Economic Co-operation and Development (OECD) classifies African countries into diversifiers, early urbanisers, later urbanisers and agrarian, based on duration of urbanisation, fertility rates and size of the middle class (US\$4-20 per day PPP).

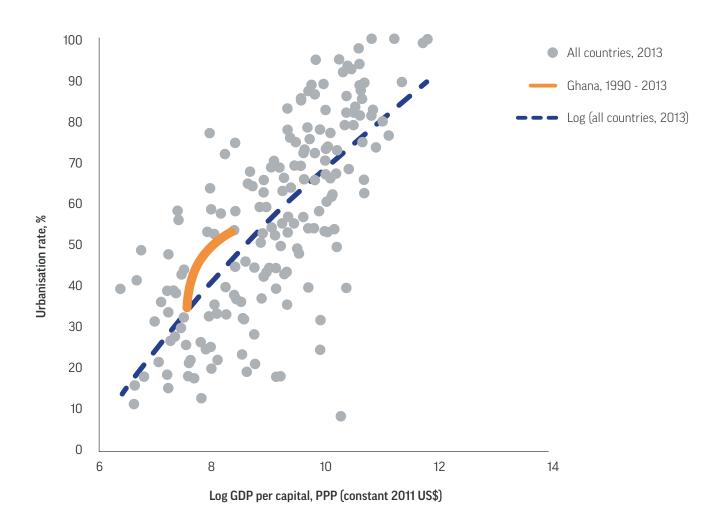
At the same time, the growing number of people in Ghana's cities has at times, and in certain quarters, overwhelmed local capacity to manage land, provide services and collect local revenue:

- The proportion of urban residents with access to piped water declined in major urban centres in Ghana between 2000 and 2010, with Accra experiencing the most acute decline, from 91% to 69% of all households.⁸
- Traffic congestion and the associated public health and productivity costs have increased.9

- Urban sprawl has driven up the cost of service delivery and undermined agglomeration effects.¹⁰
- Rising inequality has seen a growing proportion of Ghana's population living and working beyond the reach of "formal" policy instruments.¹¹
- Unchecked urban development in hazard-prone areas has increased the population exposed to flooding and high temperatures exacerbated by climate change.¹²

Figure 1

Ghana's urbanisation rate has not been matched by the rapid increase in GDP per capita experienced in many other countries. Urbanisation has been accompanied by urban poverty and lower-level economic development than in Asia and Latin America¹³



While the risks that accompany Africa's urbanisation phase are well documented,14 Ghana has an established political commitment to cities. It was one of the first African countries to appreciate that urbanisation provides opportunities to improve lives and open up new development pathways.15 To capitalise on these opportunities and to actively address the risks, Ghana developed a National Urban Policy (NUP) in 2012 with the overarching aim, "To promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions, and a sound living and working environment for all people to support the rapid socio-economic development of Ghana."16

A review of the NUP after the first five years revealed many successes but also structural challenges to Ghana's ability to harness the full benefits of urbanisation (Table 2).17 If NUPs are intended to provide clarity regarding who should do what, and with what money, in the multi-actor process of urban development, then Ghana's NUP still has a contribution to make. Ghana does not yet have a shared sense of urbanisation opportunities and threats that allows planners and other civil servants to mobilise public and private investment in a coherent manner.18

This document informs the scheduled NUP revision that will be completed in early 2020. It outlines a set of considerations for the Ministry of Local Government and Rural Development (MLGRD) as it adjusts the NUP and enhances its implementation. The five-yearly review and revision is a built-in requirement of the policy. The purpose is not to rewrite the NUP but to support its implementation with new data and fresh impetus.

This NUP Revision Guideline is the product of a two-year engagement with officials, academics, professionals and members of civil society. How Ghana designs and implements its urban policy, particularly with regard to issues such as climate change, social inclusion and finance, will determine the country's future prospects and its role in the international community. It is the transitioning of Ghana's cities from a political and administrative convenience to a strategic economic and development resource that represents the focus of this Guideline.



Photo credit: Danilo Marocchi

2. The Ghana Urbanisation Think Tank

The process that produced the NUP Revision Guideline relied on an urban innovation in its own right. The MLGRD requested the formation of the Ghana Urbanisation Think Tank (GUTT) as part of the Coalition for Urban Transitions' Ghana "country programme". The initial intention was to reconvene Ghana's internationally recognised Technical Advisory Committee (TAC), which had produced the 2012 NUP.

Discussions with the MLGRD led to the creating of an epistemic community and new modes of engagement. For example, a deliberate effort was made to introduce age, gender and disciplinary diversity and to include performing art. GUTT gatherings began with performances by poets, artists and actors, with the aim of preventing the policy formulation process detaching from Ghana's everyday experiences and rich cultural history. Artists used their own methods and social commentary to remind policy officials of the micrologics of everyday urbanism, and the history of ideas and places that policy cannot afford to ignore if it is to remain implementable. In this way, the GUTT's acknowledgement of "artistic sensibility", "artistic seeing" and creativity helped narrow the gap between people, policy and government. 19 This was seen as central to address the policy frustration surfacing in the GUTT regarding how to convert Ghana's policy into implementation, "How to get things done."

The GUTT process that produced this Guideline relied on Ghana's voluminous urban literature, a two-year local consultation and three background papers commissioned specifically for the NUP revision. The three background papers touched on essential elements of Ghana's urban opportunity:

- "Half a Decade of Implementation of Ghana's Urban Policy: Stocktaking the Successes and Failures of Flagship Projects."²⁰ This background paper reviewed the successes and failures of the first five years of Ghana's NUP. The background paper was complemented by a preceding "NUP Gap Analysis" commissioned by Cities Alliance but reviewed in the GUTT.²¹
- "The Urban Finance Landscape in Ghana Mobilizing Investment in Sustainable Urban Infrastructure".²² This background paper mapped the fiscal and financial resources available to pay for the infrastructure, services and institutions that will enable Ghanaian cities to assimilate the growing number of people that reside in cities into productive and safe livelihoods.
- "The Macro-Economic Impact of Two Different Industrial Development Pathways in Ghana".²³

Each of the three background papers commissioned by the GUTT for this project was reviewed at inception phase and final draft phase, to acquaint GUTT members with the content and to draw on their collective experience in shaping the research. For example, the criteria the Kwame Nkrumah University of Science and Technology (KNUST) research team applied in the evaluation of the NUP's first five years, were altered and the geographical focus of the work was expanded to include Ho and Tamale, on request from the GUTT. In addition, the GUTT provided a platform for presentations from other government ministries, including the One District One Factory (1D1F) programme, the Campus Urban Thinkers Forum and the Government of Ghana team responsible for organising Ghana's participation at the World Urban Forum 2020.

More generally, the GUTT aimed to create a 'safe space to hold difficult conversations'. Rather than avoiding the urban contradictions and "wicked

problems"24 that are present in all cities, the GUTT sought (with varying degrees of success) to confront them. Where subjectivity and differences in opinion emerged, the GUTT actively engaged these in the understanding that differences of opinion can yield new perspectives and new possibilities for implementation.²⁵ The GUTT incorporated an implicit scepticism regarding the application of international best practice to local contexts and the associated threat of "isomorphic mimicry" by government departments facing novel challenges such as climate change or growing informality.26 In bilateral discussions, "kenkeyfication of urban policy" emerged as a working idea. Kenkey is a traditional sourdough maize dumpling in Ghana that is being displaced by what are perceived to be more "modern" imported foods. This working idea was seen as emblematic of the combination of international themes, traditional ideas and domestic resources necessary to navigate Ghana's urban future.

Attendance at the GUTT was by invitation but voluntary. The five GUTT meetings convened as part of this research process were complemented by one-on-one interviews and informal discussions. The quarterly meetings came in the wake of Ghana's successful Urban Forum in 2018 and were chaired by senior officials in the MLGRD and senior academics. The Accra-based Urban Management Institute acted as the secretariat of the GUTT while a University of Ghana academic, Dr Issahaka Fuseini, served as the in-country GUTT coordinator. The consistent attendance of Ghana's National Development Planning Commission gave the deliberations particular policy relevance. Both the GUTT and the research process strengthened Ghana's network of urbanists, and ensured the task of generating content for Ghana's NUP Revision lay with people that would live with the consequences of the policy.



Photo credit: TG23

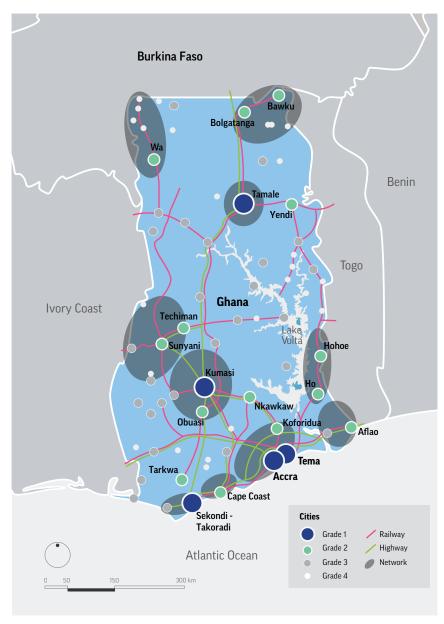
3. NUP Revision Guideline

Appendix A presents the historical context in which Ghana is revising its NUP. This context is crucial to understanding the political alliances, vested interests and institutional evolution that define the limits and opportunities of urban policy in Ghana in 2019. It is important to note that Ghana's

urban landscape is dominated by two large cities, Greater Accra Metropolitan Area (GAMA), with a population of over 4 million and Kumasi, with a population of just over 2 million. Smaller but rapidly growing towns such as Tamale, Takoradi, Sekondi, Cape Coast, Obuasi, Koforidua, Ho and Sunyani had a population of less than 1 million in 2018 (Figure 2).

Figure 2

Map of Ghana showing the primacy of the GAMA metropolis (including Accra and the industrial hub of Tema), Kumasi and the smaller cities and towns and transport links²⁷



*Including proposed railway lines north of Kumasi

Unusually for Sub-Saharan Africa, Ghanaian cities have enjoyed sustained political support from all governing parties. Ghana has had a decentralised development planning system in place since 1988, was one of the first African countries to formally adopt a NUP and has an array of policies and institutions that support sustainable urban development (Appendices A and B). In spite of this, the sense of a lack of synergies and shared vision persists at the city scale, and many urban functions are either duplicated by ministries or fall

between the cracks of city administration and urban governance. A survey of 14,000 local government infrastructure projects in Ghana found that a third of them (accounting for a fifth of the infrastructure budget) were unfinished after three years and unlikely to ever be completed. The infrastructure that is being delivered is often at odds with spatial planning efforts, and poorly aligned with existing social and economic needs. As a result, it fails to generate the economic multipliers that are required to make their financing sustainable. This mode

of infrastructure delivery creates and then locks in long-term risk associated with congestion, social marginalisation, water, land, carbon intensity and exposure to climate risks. Importantly, this outcome prevails in spite of all the requisite policy.

A review of the first five years of the NUP³¹ was broadly positive in terms of the impact. As was to be anticipated in the context of complex urban spaces, the resource constraints of a middle-income country and the limits of government intervention, the positive impacts noted were neither instantaneous nor definitive in terms of creating sustainable cities (Table 2). While all of the programmes implemented under the NUP had achieved a degree of success, the benefits were unevenly distributed across the country.

The review echoed previous work in its revelation of urban policy in Ghana as piecemeal, project-

and programme-based and lacking in a clear metropolitan perspective capable of linking the governance of land and space with infrastructure investments.32 It is widely accepted, even among those charged with the responsibility of implementation, that Ghanaian cities require a more transparent land cadastre complete with accountable and quicker modes of upgrading tenure and securing title, and capable of managing sprawl, enabling transit-oriented development and raising land-based revenue.33 Similarly, it is widely acknowledged that Ghanaian cities, most notably Accra, have a traffic congestion problem and require more efficient public transport and investment in road infrastructure and safe pedestrianisation,³⁴ and that unreliable electricity supplies (which have their own name, dumsor) impose costs on businesses and households and undermine the expansion of industry.35

Table 2

The impact of Ghana's NUP after the first five years³⁶

Positive outcomes emerging from the NUP Gaps and limitations emerging from the NUP Street Naming and Property Addressing System (SNPAS) SNPAS has had limited reach and not prevented local named 75% of roads in Central Business Districts and elites naming streets. Street naming has not yet unlocked improved signage. 3,782 street signs erected and 12,952 property tax collection, postal services or emergency signs posted in 2015 alone, funded by the World Bank and services. involving local communities and chiefs. Land Use and Spatial Planning Authority (LUSPA) No increase in housing stock as result of NUP. Progress contributed to more orderly human settlements and a on valuing properties and securing property rates for reduction in the time taken to issue construction permits metropolitan, municipal and district assemblies (MMDAs) from an average of 201 days to instances of 30 days. slow, as on land value capture. As yet, no definitive spatial logic to urban expansion or investment in public infrastructure. District assemblies' planning layout makes provision for "green infrastructure" and protection of wetlands and riparian zones but these areas have been encroached on in a number of cases. Ghana Urban Transport Project (GUTP), Ghana Urban Bus Rapid Transit (BRT) not cost competitive; little Management Pilot Project (GUMPP) and Participatory Slum complementarity between minibuses (trotros), taxis and Upgrading Project (PSUP) contributed to infrastructure the BRT system. and service delivery (roads, community centres, abattoirs, Quality Bus System (previously known as the Bus Rapid engineered landfills, public transport), giving residents a reported "sense of place" and "right to the city". Transit) implemented under GUTP has not improved commuter time, nor secured dedicated routes or led to Programmes and their projects have increased local employment creation. PSUP investment in Ga Mashie urban precinct development. improved business for street vendors and PSUP network led to the issuing of micro-loans.

Positive outcomes emerging from the NUP	Gaps and limitations emerging from the NUP
Street naming accelerated under NUP and has created a system that allows for people to be charged property rates or charged for water and electricity.	Street naming process was top-down and did not draw on the names people were already using. It has not made a significant contribution to revenue collection. Property taxes, like all Internally Generated Funds, continue to follow the political cycle and are always low in an election year.
Average 156% improvement in MMDA Internally Generated Funds over 2012–2017.	Slow progress in land value capture or payments for services. Revenue collection by MMDAs remains erratic, low and prone to rent-seeking.
Some public-private partnership (PPP) progress in delivering sanitation infrastructure and infrastructure for public markets.	Limited shift in national budgets to support NUP or PPPs. In some districts, PPPs have not progressed beyond circulation of the document.
	PPP risk still disproportionately loaded on government.
Some capacity created through Local Government Capacity Support Project (LGCSP) leading to enhanced compliance with the District Development Fund and expansion of community infrastructure in Ga Mashie.	Continued MMDA dependence on external support and consultants.
PSUP has improved flood control in Ga Mashie.	Investment in support to PSUP has been limited and the general process remains costly and slow.
Biogas plants attached to abattoirs in Tamale and Ho under GUMPP and Bolgatanga under the Urban Development Grant (UDG).	Biogas not yet used in taxis or BRT vehicles, and unclear on how much electricity or fuel is being produced by these plants.
PSUP, with Ghana National Bank, extended micro-loans to Ga Mashie entrepreneurs, including on solid waste management in Ga Mashie and Jamestown.	LUSPA has not yet curtailed sprawl or protected green urban space and has not yet overseen land expropriation in pursuit of the public infrastructure.
UDG has significantly stimulated infrastructure delivery in education, health, roads and transport, public safety and security, water and sanitation and urban social infrastructure. 520 projects had received UDG support by early 2019. Prior to this, UDG created 73 markets, 19 lorry parks, 5 artisan villages, 14 abattoirs and 3 agroprocessing centres.	UDG remains difficult to anticipate and manage for local officials. Has not led to city-wide upgrades. Crowding-in of private investment has been limited outside of 1D1F.

What is less well documented, but critical to progress, is the reason it has been so difficult to shift the prevailing governance deficits and urbanisation defaults. There is limited policy consensus on the ways in which Ghana could transition from its current incremental, slow and at times uncoordinated efforts to develop its cities to a state of accelerated progress that draws in local resources and unlocks urban potential to drive national development. Both the NUP Review and the GUTT process identified an overwhelming array of urban policy, programmes and projects, most of them well conceived. Ghana has all the requisite policy and governance architecture, and no obvious need for additional policy to support sustainable cities. The most pressing need, at this stage of Ghana's development, is to align the work of the many ministries, companies and development partners that operate within cities behind a few strategic imperatives.37

This guideline proposes a focus on the role of cities in addressing three existential risks to Ghana's development: inequality, climate change and fiscal instability. This focus does not obviate the need for ongoing progress on surveying, street naming, fiscal accountability, capacity-building and infrastructure upgrades, but rather provides these efforts with a fresh rationale. The role of cities in addressing the three national risks in Ghana resonates closely with the Sustainable Development Goals (particularly SDG 3 – health and well-being; SDG 8 – decent work and economic growth; SDG 10 – reduced inequality; SDG 11 – sustainable cities; and SDG 13 - climate action) that were published after the release of Ghana's first NUP in 2012. In this way, a successful NUP revision will connect Ghana's domestic urban development programme with global programmes and associated ideas, technologies, funding and investment that will flow in support of the SDGs.³⁸

3.1 FROM RISING INEQUALITY TO SOCIAL INCLUSION

Where Ghana's growing cities include job creation, public spaces and new urban identities that transcend otherwise distinct ethnic, economic and spatial groups, they will be a force for greater social inclusion. In the process, they will avoid

the multiple risks associated with socio-economic inequality and drive economic growth.³⁹

Ghana's rapid economic growth over the past eight years has aided development but also exacerbated inequality. In Ghanaian cities, just as in market economies elsewhere, economic growth is "rigged";40 the rich and powerful and their children have better opportunities than others, enabling the perpetuation of wealth and creating barriers to market entry.⁴¹ The situation in Ghana has been amplified by the regressive influence of high inflation rates (40% in 2000 and above 9% in 2019), especially for poorer families that do not own property and that spend large proportions of their income on food and transport, and a top income tax rate of just 30% charged to people earning \$3,700 per month.⁴² Having fallen by almost 50% between 1990 and 2010, the proportion of Ghana's population living below US\$1.90 per day increased from 12% to 13.3% between 2010 and 2017.43

Ghana's cities concentrate affluence and poverty, giving rise to growing absolute and relative inequality and making governance difficult, as Latin American countries demonstrated in 2019 (Ravaillon 2019). A population with a disparate socio-economic status has widely divergent needs and preferences, complicating the notion of investing in the "public interest" and leaving it exposed to the risk of social disenfranchisement and populism. Ghana's rising inequality has an additional spatial dimension, with growth in Accra and Kumasi in particular highlighting the lack of development in secondary cities such as Tamale and Ho. As respective social upheavals in Paris, Hong Kong and Santiago (very different cities, but all relatively affluent cities yet with high levels of inequality) in 2019 reveal, where growth drives inequality it is easy for governments to lose their grasp on public sentiment and be overwhelmed by unanticipated outpourings of discontent. This risk becomes acute when inequality begins to replicate itself through land markets that push poor households to the periphery, or through investment in education. Less than 10% of Ghana's learners from affluent households leave school early, but 50% of learners from poor households drop out of school, locking socio-economic divides into the country's economy.44

Without targeted urban interventions climate change will exacerbate existing inequalities as more intensive and frequent droughts and floods impact already-vulnerable populations and settlements. In this way, improving social inclusion will support Ghana's adaptive capacity in the face of climate change.

The challenge in Ghana involves harnessing urban economic growth to promote social inclusion and employment, thereby sustaining growth potential.⁴⁵ This positive role for cities depends on infrastructure that connects disparate urban spaces and governance that evokes the country's laws to tackle "political clientelism".⁴⁶ Inclusive, city-driven growth will have to transcend the fault lines of tribalism, ethnicity, status and geography that currently determine access to opportunity in Ghana.⁴⁷ If they do not, they will continue to amplify socio-economic disparity and social exclusion.⁴⁸

The revised NUP can contribute practically to this effort in the short term by Placing fresh emphasis on at least three areas.

3.1.1. Investing in safe pedestrianisation

The nature and location of public investment in infrastructure and services determine access to economic opportunity and shape social interactions.⁴⁹ Reallocating a greater portion of Ghana's roads budget to safe pedestrianisation and non-motorised transport would enable a shift towards social inclusion.⁵⁰

Despite more than 24,000 additional cars being registered annually between 2000 and 2013 across the country, 60% of commuter trips in Ghana still involve walking, bicycling (12% of trips) and trotros (12% of trips).51 The medium-term solution involves efficient and affordable public transport that reconciles the land and jobs markets in support of economic growth and employment. In the immediate term, simply allocating a greater proportion of the US\$237 million budget for roads in 2019 to pavements and safe non-motorised transport would support social inclusion. Allocating just 10% of the roads budget to safe spaces for pedestrians, cyclists, vendors, and less physicallyabled commuters would save at least a third of the estimated US\$230 million that Ghana pays

annually for road accident trauma treatment.⁵² For the urban poor, walkable bike-friendly cities are also liveable cities.

There are roughly three times more road deaths per capita in Ghana (26.1 per 100,000 people and 19 fatalities per 10,000 vehicles) than in Europe. Road deaths in 2018 were up 12.8% on 2017 and, of the 2,341 people killed on Ghana's roads, 34% were pedestrians. A further 13,677 people were injured on Ghana's roads in 2018.53 The Greater Accra Region, where only 0.3% of commuters use public buses, accounted for the most deaths (460) in 2018.54 Rather than addressing the symptoms of traffic congestion and a lack of parking, the progressive aim should be to accommodate urban forms and road designs that encourage non-motorised transport, particularly in poorer communities. Such cities would reduce vehicle congestion, particulate pollution, road deaths and household expenditure on fuel, while simultaneously enabling people that do not have private vehicles to access urban economic opportunity.55

3.1.2. New enumeration and tenure upgrades to codify urban identities

Cities offer the chance to create new urban identities, a sense of belonging and a sense of place that could stitch ethnic, socio-economic and geographic diversity together. While Ghana has successfully codified relationships between citizens, land and basic services in the country's laws, it has struggled to give these laws traction through practices and programmes. It has struggled, equally, to reconcile formal planning and tenure agreements with the rich history of wells, shrines, music and boxing clubs that define Ga Mashie history in places such as Accra. The GUTP, GUMPP and PSUP have built public toilets and supported street traders with concrete market structures, but their efforts have been ad hoc and have done little to reduce inequality in Ghana's cities.⁵⁶ Rather, urbanisation has defaulted to replicating, and sometimes amplifying, inequality.57

Enumeration – the process of making citizens, their needs, their dwellings and their livelihood strategies visible to the state – has become significantly easier and cheaper with digital technology.

Both the process and the outcome of enumeration can validate people's relationships with land, government and government services, by creating a single set of reciprocal obligations between the state and citizens. Absence of enumeration undermines these relationships and can engender social marginalisation and disenfranchisement. As Chabal points out, "To have no obligations is not to belong",58 and marginalisation within the urban context can foment livelihood strategies that undermine the public good and make revenue collection more difficult.⁵⁹ The urban elite, comprising officials, the affluent and traditional authorities acting on concert, continues to shape many city decisions in Ghana. Affluent residents engage city authorities selectively and on their own terms, while poor households in neighbourhoods remain passive beneficiaries of top-down government projects or the benevolence of the elite within their communities.60

Ghana's vice-president has been a vocal proponent of digitalisation, claiming that every house, formal and informal, will be "geo-tagged by early 2020... by leveraging technology to improve transparency

Box 1

The Ghanaian notion of "stool land" or "skin land"

Ghana maintains a plural tenure regime, with both freehold and customary tenure. Land is divided into public land vested in the president for public infrastructure and public benefit, private land owned by individuals and companies and, for much of the country, "stool land" (called "skin land" and "family land" in some regions), held in a form of trust for local communities by traditional authorities and community leaders. "Stool" refers to the carved wooden stool containing the souls of ancestors that the chief uses. Under this system a locally determined combination of chiefs, clan elders and family heads hold fiduciary relationships with their subjects, who entrust them to make land use decisions.⁶¹ Customary tenure includes land not just as a financial commodity but also as a productive resource, family heirloom, spiritual home and sense of place for particular communities.62

and accountability in administrative systems, we are completing in short order what many years of administrative reforms had not been able to accomplish". Digitalisation and geo-referencing will become increasingly important to provide accountability as the expansion of Ghana's public infrastructure in cities encroaches on "stool land" held by families and under customary tenure in Accra and Kumasi in particular (see Box 1). However, effective enumeration in Ghanaian cities will necessarily accommodate an array of tenure types, family relationships and modes of reciprocity with urban authorities, and digitalisation on its own is unlikely to be successful.

Centrally co-ordinated, technical solutions can assist in strengthening urban identities and access to services. However enumeration that undermines the scope for local partnerships, or which strips away customary relationships with land or displaces the "consultation, dialogue, consensus" approach that the Customary Land Secretariats apply in allocating land, are likely to exacerbate inequality, especially where they abet the expansion of the state-sanctioned land market.⁶⁴ For this reason, effective enumeration, whether it relates to citizenship, land or public sanitation, will include partnerships with local communities, and new partnerships with organisations such as People's Dialogue and the Ghana Federation of the Urban Poor (GHAFUP) which the Ghanaian state has historically seen as antagonistic.

3.1.3. New partnerships for accelerated slum upgrading and service delivery

Select slum-upgrading projects in Ghana, such as Amui Dzor outside Tema, have been internationally celebrated, ⁶⁵ but have not addressed the conditions generating slum urbanism and have not been applied across the country, or even across Tema. In places, the approach to slum upgrading is little changed from the city planning practised under colonial rule, and involves slum clearance, relocation and redevelopment on the urban periphery, thereby driving sprawl. ⁶⁶ Between 1985 and 2000, GAMA's population increased by 50% while the extent of the city increased by 160%. ⁶⁷ Sprawl not only increases the cost of service provision ⁶⁸ but also distances the urban poor from economic opportunity and imposes

a heavy commuter burden on those who do have work.⁶⁹ In this way sprawl, slums and urban poverty have co-evolved in Ghana's cities.

Behind the recent growth of Ghana's urban slums is Ghana's contested and overly complex land cadastre (Box 1). While at the local scale this patchwork of tenure reconciles customary and household needs, it complicates national and regional development projects. By some estimates, land conflicts account for 59% of cases in Ghanaian courts of law, and outcomes too easily favour households with the resources to secure representation in court.⁷⁰ Lawyers earning fees resolving land disputes and rent-seeking local officials have little incentive to simplify the process or make it more accountable. Rising land prices and an underdeveloped housing finance market that sees home loans issued over three-year repayment periods and mortgages contributing just 0.5% to gross domestic product (GDP), compared with 22% in South Africa and 50% in Europe, further complicate the uptake of land and home ownership.71 As did the US\$1,700 charged on some construction permits and the historical average of 201 days and 13 procedures required to issue these permits.⁷²

It is unsurprising, then, that the housing backlog is estimated at 2 million units, that 90% of urban housing is built without prior local authority approval and that 75% of households in Ghana either rent their housing or live with family.73 The default, for many, is to construct a shelter and seek a permit once it is complete. While this is rational for households, it makes the planning of public infrastructure difficult and leads to an underinvestment in housing and community infrastructure, which perpetuates pockets of marginalisation. In Tema, a coastal city that President Nkrumah commissioned as an industrial hub shortly after independence, a rapid influx of work-seekers overwhelmed the Tema Development Corporation's capacity to build houses, which led to the emergence of Tema Newtown informal settlement on the outskirts of the city. Neither the courts nor the urban land market operating in isolation are equipped to resolve these issues at the required rate or in the interests of inclusive cities. Where the market does pronounce on ownership and value, it tends to exacerbate inequality and

social exclusion by placing poorer households on the outskirts, where land is cheaper. Events in Santiago, Chile, in 2019, provide just one illustration of the marginalisation and anger that is fomented when poverty is replicated through urban sprawl.

If Ghana's urban housing programme is to become a force for social inclusion rather than a reflection of Ghana's socio-economic divides, the government will require new capacity to form partnerships that accelerate the pace of housing delivery on well-located land. In particular, the MLGRD will have to collaborate with the Ministry of Lands and the Presidency, Customary Land Secretariats, LUSPA, local government, service providers (Urban Roads Department, Electricity Company of Ghana, Ghana Water Company and Ghana National Fire Service), traditional leaders and communitybased organisations such as the People's Dialogue, in identifying and developing land for housing, drawing on existing "collective self-help" efforts at slum upgrading.74

For civil society organisations such as GHAFUP, this will involve a tricky but important transition from protest mode to constructive engagement and service delivery. Financial institutions will need to complement this effort with longer-term mortgage finance that can be accessed through land held in customary tenure. The task of establishing and maintaining partnerships for accelerated slum upgrading on well-located urban land in Ghana should not be underestimated. It could, however, be supported by an apolitical land tribunal overseen by the Supreme Court that goes beyond the 1962 Land Act and instead draws on Ghana's Constitution to resolve land disputes that get stuck in the bureaucratic system, quickly and fairly in line with Ghana's constitutional notions of equality. Having a Supreme Court backstop would focus the collaborative attention of the necessarily diverse set of partners listed above, to resolve disputes and improve tenure security in a timely and just manner.

3.2 ALLOW CITIES TO DRIVE THE LOW-CARBON STRUCTURAL TRANSITION

Industrial policy in Ghana recognises the need to transform the structure of the economy through enhancing productivity and diversifying exports.⁷⁵

Linking industrial strategy with cities offers a chance to realise this structural transformation, particularly when the link between industry and urban development anticipates the impacts of climate change.⁷⁶

Typical of "early urbanisers" in Africa, Ghana has struggled to consolidate a high-value manufacturing sector in the urban economy⁷⁷ and has not been able to create the type of low-skilled manufacturing sector employment required to absorb the growing urban workforce.⁷⁸ Ghana's industrial sector was projected to grow at 5.9% in 2019, below the rate for agriculture and below the GDP growth rate,⁷⁹ contributing to a steady decline in manufacturing from 14% of GDP during the 1970s to roughly 2% in 2019.⁸⁰ In recognition of the issue, President Addo

Box 2 Ghana's One District One Factory programme

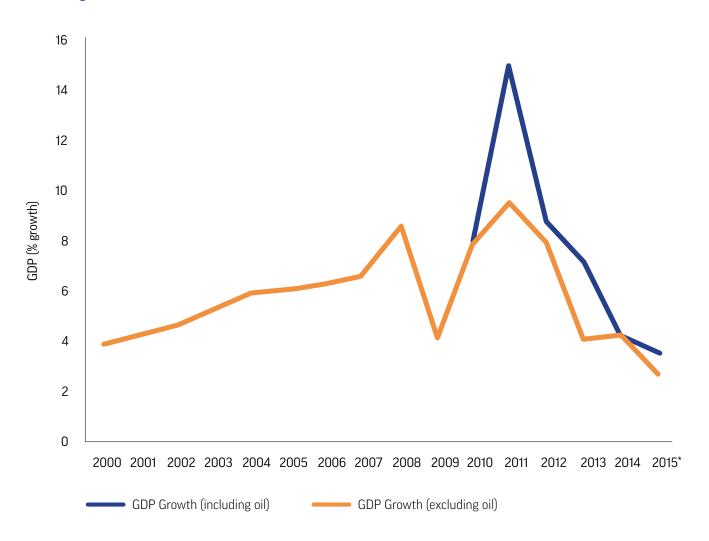
One District One Factory (1D1F) is initiated and overseen by President Ado, with an approved budget of US\$109.3 million and the intention to create 350,000 jobs. Currently, manufacturing employment remains below 12%.81 1D1F aims to change this by building on the 10 Pillars in the Industrial Policy Framework 2012. It sees government playing an "enabling role" for industry through the provision of bulk services (water, electricity and roads), concessionary finance (typically a subsidy of 50% of the lending rate, where the lending rate is capped at 20% per annum); technical support (including environmental approvals) and market access in collaboration with the Ghana Export Promotion Agency; off-take agreements for electricity generated; sector-specific rebates on investment; waivers on import duty; and up to a 30% reduction in electricity tariffs for non-residential uses. While unlikely to deliver a factory in each of the 254 districts, 1D1F has made impressive progress in its initial 18 months. As of April 2019, 45 out of a planned 181 factories were operational, although some of these predated the programme. 1D1F projects also qualify for investment by Ghana's bilateral partners including local private equity partners, the China-AGI US\$2 billion financing scheme and the Indian Exim Bank credit facility.

launched 1D1F in 2016 as the flagship economic strategy, to complement existing Industrial Development Zones and Special Economic Zones aimed at boosting industry in an effort to increase manufacturing and exports (Box 2). Ghana has enjoyed limited success in two decades of the Ghana Free Zones Authority. China's loan for two new railway lines appears to be underwritten by the rights to mine bauxite deposits, some of which sit underneath the famous evergreen Atewa Forest, which serves as the catchment for water supplies to Accra. To the extent that inference can be drawn from industrial strategy, both the Ghana Free Zone Authority and 1D1F hope to apply investment in industry to spread economic benefits around the country; 1D1F goes further, suggesting that the programme could slow down the rate of urbanisation in Ghana. Both programmes underplay the opportunities that accompany Ghana's urbanisation mega-trend, and both under-acknowledge the manner in which climate change will reconfigure competitive advantage and market access in the global economy in the next two decades.

Ghana's discovery of oil in 2007 has brought into stark relief the direction of Ghana's industrial strategy. Oil extraction provided a short-term boost to GDP growth post-2010 (Figure 3) and is expected to add 1.4% to GDP in 2019.82 It has also, however, ushered in much higher dependence on imported industrial services83 and mixed longerterm implications that hold elements of a "resource curse".84 Growing global fears about the burning of fossil fuels and climate change impacts will compound the negative implications of Ghana's oil dependence. As of September 2019, over 1,000 companies, organisations and governments, representing over US\$11 trillion in assets, had pledged divestment from fossil fuels, as the combination of technological innovation and public pressure around climate change risks stranding fossil fuel assets.

Figure 3

GDP growth (% growth) and oil contributions in Ghana 2000–2015 show an initial spike followed by declining contributions⁸⁵



Note: * The rate for 2015 is projected

Armed with knowledge of both climate change and the resource curse, Ghanaian officials would be negligent if they did not plan to obviate the risks confronting the national economy. The NUP revision in 2020 offers the chance to put in place at least three near-term interventions that will diversify and strengthen the Ghanaian economy through support for low-carbon, industrially linked cities. ⁸⁶

3.2.1. Linking 1D1F, industrialisation and urbanisation

It is possible to enhance the prospects of building on 1D1F's initial success if the industrial and manufacturing economy can link to the urbanisation mega-trend and associated demand for manufactured goods, bulk services and locally produced and processed food in the next two decades. Meeting a greater portion of this demand with local goods and services offers greater predictability and more autonomy than is the case if Ghana's commodities and manufactured goods are subjected to trade wars and protection barriers in international markets.

By some estimates, GAMA imports 70% of the building material involved in its rapid expansion. ⁸⁷ Displacing even a fraction of this building material through new manufacturing would represent a robust off-take for Ghana's industry. The innovators at ArchiAfrica have demonstrated how high-quality housing and commercial properties in Accra can not only rely on local resources but also contribute to urban upgrading in places such as Jamestown by connecting with the heritage of places and associated building techniques. Where Ghana succeeds in this industrial strategy, it will have a platform from which to export the same goods and services to urbanising Economic Community of West African States (ECOWAS) countries.

Similarly, the ambitious Renewable Energy Master Plan (REMP) outlines a rapid uptake of renewable energy in Ghana that could, if effectively managed, reduce the cost of electricity and displace charcoal in the 44% of urban households that still depend on charcoal for their primary cooking fuel.⁸⁸ The contribution of the REMP could be enhanced if the renewable electricity that ensues is used to supply the growing demand from urban industry, thereby driving low-carbon industrialisation, competitive manufacturing and displacing damaging charcoal.

3.2.2. Harnessing urban development for the low-carbon transition

In its Nationally Determined Contribution (NDC) to the United Nation's Framework Convention on Climate Change, submitted in December 2015, Ghana is clear on its intention to reconcile the country's "international obligations" with the "objective of becoming a fully-fledged middle-

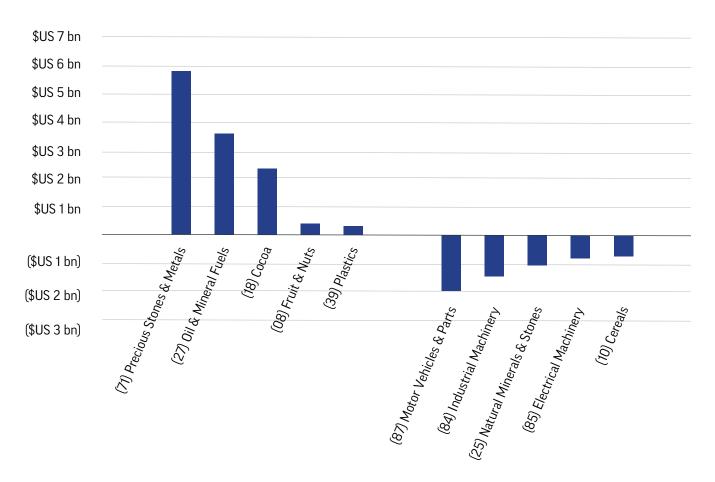
income economy" as outlined in the Ghana Shared Growth Development Agenda II.⁸⁹ Ghana's NDC pledge represents just a 15% cut relative to a business-as-usual scenario of 73.95 MtCO₂e in 2030 and would see a 50% increase in 2016 emissions.⁹⁰

Current greenhouse gas (GHG) emissions in Ghana come mainly from land-based activities such as nitrogen fertiliser manufacturing and application, poultry and animal husbandry and deforestation (46%), but the energy sector is contributing a growing share (25% in 2016). Implicit in Ghana's strategy is the idea that curbing emissions and building climate resilience will compromise industrial ambition, but this need not be the case. Where cities are placed at the forefront of both climate and industrial ambition, synergies between industrial development and low-carbon climate resilience are possible. In the compromise industrial development and low-carbon climate resilience are possible.

Ghana's NDC is complemented by an array of climate policies – the National Climate Change Policy, the National Environmental Policy, the Low Carbon Development Strategy and the National Climate Change Adaptation Strategy 2010-2020. In addition, the country has received acclaim for stopping the proposed Aboano Coal-Fired Power Station. None of this is likely to prove adequate, however, unless urban expansion and urban industry is low-carbon and climate-resilient. Currently, every ton of cement used in Ghana's urban construction industry is responsible for over a ton of GHG emissions. Moreover, Ghana's balance of payments (Figure 4) depends on the export of oil and gold, both of which will be difficult to trade in a world that is increasingly trying to curb GHG emissions and protect ecosystems. Ghana's third largest export earner, cocoa, is highly sensitive to perturbed climates, as the droughts of 2015/16 and 2018 revealed.93 The frequency and intensity of these droughts is projected to increase under climate change.94

Figure 4

Ghana's sectoral export and import contributions show balance of payment exposure to climate change⁹⁵



Ghana is still actively building its urban infrastructure and national energy system, and can incorporate the benefits of recent innovation without expensive retrofits. "Many opportunities [required for a low carbon transition] are so simple they are being overlooked, including changes to infrastructure design that do not tend to be included in government studies or industry forecasts ... No magic is required."96 Contrary to popular perception, a proactive transition to low-carbon competitiveness is likely to be cheaper and easier than a retrospective response⁹⁷ and essential for creating employment and economic opportunities, especially among women.98 In the case of cement, for example, the application of new, environmentally sensitive local materials (including fly-ash and sustainable timber) would not only support local industries but also contribute to decarbonisation.

A proactive strategy, built around renewable energy, electrification and low-carbon cities and urban industry, would realise new investment opportunities. US\$510-530 billion was invested in 2018 alone in support of climate resilience, 99 and at least US\$9.5 trillion is expected to be invested between 2019 and 2050 in pursuit of net-zero emissions by 2050.100 In the process, Ghana's industrial and urban strategies would unlock the economic and environmental value of climate change mitigation actions and related economic and non-economic co-benefits. 101 Ghana would also transcend the zero-sum politics of who gets to emit the planet's remaining carbon budget, while securing acclaim, jobs and competitiveness in a carbon-constrained global economy.102

Short-term steps capable of linking Ghana's industrial development with its urban and climate ambition include the following:

- Guaranteeing the same price for coal and gasfired power to renewable energy projects in order to harness falling electricity generation prices and support the uptake of renewable energy technologies. This pricing agreement should be complemented by the removal of import tariffs on renewable energy technologies as outlined in the REMP.
- Removing all fossil fuel subsidies. Ghana actively reformed and reduced its subsidies to fossil fuel suppliers between 2005 and 2014, and the subsidisation rate is low by international and regional standards. ¹⁰³ In spite of this, Ghana retained fossil fuel consumption subsidies of US\$30.9 million in 2016, which feeds through to suppliers. ¹⁰⁴ The phasing-out of these subsidies in favour of urban grids powered by a variety of localised renewable feedstocks would not only assist with the electrification of the urban vehicle fleet and reduce short-lived climate pollutants within cities, but also support a more diverse and inclusive urban energy sector.
- Ensuring effective competition and procurement rules between firms in the industrial expansion. In South Africa, the difference between the price charged by a cement cartel during collusive and noncollusive periods was 7.5–9.7%. The total savings to South African customers from the breakup of the cartel was US\$79–100 million between 2010 and 2013. Ghana faces similar risks across a variety of sectors as industrial ambition expands. The need for effective market regulation is most acute in Ghana's highly complex energy sector (Box 3). In spite of an

- unbundling of vertically integrated utilities in 2005 and the resulting formation of Ghana Grid Company, legacy issues continue to impede Ghana's energy sector. The uncoordinated procurement of energy from independent and emergency power producers prior to 2016 now requires the government to pay US\$450 million in 2019 to private companies for power that the country does not use. 106 As Ghana seeks to introduce private sector involvement in generation and transmission, effective market oversight and procurement will be critical. This market regulation must be supported by publicly available and easy-to-comprehend energy data that enables the securing of recent energy sector innovations and price declines; in a recent auction Ethiopia procured electricity at just US\$0.025 per kWh.107 In the process, Ghana will draw down its comparative advantage in wind, solar and biomass in line with the REMP.
- Reforming Electricity Market Oversight Panel legislation to allow major cities to participate in the Wholesale Electricity Market that was introduced in 2017 through purchases of clean electricity directly from a variety of sources, based on price, reliability and environmental performance, and not limiting them to purchasing from the two national utilities, Electricity Company Ghana (ECG) and Volta Region Authority (VRA). These reforms are essential to harness the benefits of recent energy sector innovation and associated price declines, but all energy sector reform has to be carefully conducted to balance supply, demand and environmental considerations. In this way, growing cities will be in a position to support the 2019 REMP as buyers of renewable energy.

Box 3

Complex and evolving electricity sector governance in Ghana

Ghana's National Energy Policy (2010) is the overarching piece of legislation guiding electricity sector development. The sector is overseen by the Ministry of Energy and disaggregated into generation, transmission and distributions, each of which has distinct investment and financing strategies. By 2018, Ghana had roughly 5.5GW of electricity capacity (although other sources such as the REMP claim over 10GW), which was more than required by grid connected households, SOEs and companies. However, only 84% of Ghana's population have access to grid distributed electricity, and many households still rely on biomass feedstocks for cooking.

The Energy Commission (responsible for operating licences) and the Public Utilities and Regulatory Commission (responsible for pricing and competition) share regulation of the energy sector. The two largest utilities, VFA and ECG, both rely predominantly on hydropower plants, but recently diversified into thermal energy (diesel, gas and light crude oil) and solar power, and are planning wind energy. By some estimates, thermal and hydropower now contribute equally to electricity generation.¹⁰⁸

Legislation in 2005 picked up on the global trend away from vertically integrated power utilities by restricting VRA to power generation while creating a new utility, GridCo, responsible for the National Interconnected Transmission System (NITS) and for electricity purchases, distribution and sales, including sales to ECG and the Northern Electricity Development Company. Independent power producers are required to sell to GridCo, but have to comply with the 2009 Grid Code, stipulating development, operation and maintenance of the NITS. The Renewable Energy Act 2011 seeks to increase the portion of Ghana's electricity generated from most renewable sources (wind, solar, hydro, biomass, biofuel, landfill gas, sewerage, geothermal, ocean). In February 2019, the government released the REMP, funded by the China-Ghana South-South Cooperation on Renewable Energy Technology Transfer project. The REMP is to be implemented by a REMP coordinating unit and overseen by national steering committee and aims to:

- Increase renewable energy (excluding hydro) in the national energy mix from 42.5MW in 2015 to 1.36GW in 2030.
- Reduce dependence on biomass so as to arrest deforestation and pollution.
- Create 1,000 mini-grids powered by renewable energy.
- Increase local content and local participation in the renewable energy sector.

All electricity generation, transmission and distribution of electricity in Ghana has to comply with the Environmental Protection Act of 1994.

The production and distribution of all power in Ghana is required to comply with the Environmental Protection Act (1994).

■ Introducing catchment-wide strategies for urban water supply that provide a reliable flow of water to industry. Ghana's urban water supply ranks third worst in the world in terms of reliability.¹o9 Given Ghana's dependence on biomass for at least a third of its energy, and the resulting forest and catchment degradation, investments in water catchments land stewardship and bulk water infrastructure, which would allow for the recycling of grey water and universal access, are essential to improve industry and ensure liveable cities.

3.2.3. Promoting circular urban industry, beginning with solid waste

The relationship between energy, resource consumption and pollution is a function of both policy and urban design - the "urban metabolism". Industrial cities in particular can impose a burden on the natural environment through their intensive use of water, mineral and energy resources and their generation of air, water and solid waste pollution, and on society through their drawing in of migrant labour.

In contrast, an urban "circular economy" keeps resources in use for as long as possible by applying a combination of technology, regulation and management to recycle and repurpose material and energy at the community scale. This type of urban economy tends to have higher levels of labour relative to machines, extracts maximum value from the available resources and is less environmentally damaging than a traditional linear economy in which cities make, use and dispose of resources. Circular economies are also capable of generating higher economic multipliers in Ghana than are linear economies.¹¹¹

Ghana already has isolated examples of local energy grids, biodigesters that convert sewerage to electricity and the composting of abattoir waste, which should be scaled as part of a circular urban industrial economy. In the immediate term, however, the NUP could endorse readily available opportunities that reimagine the role of the 12,000 tons of solid waste generated daily in Ghana, particularly plastic waste, in the urban economy. Until 1985, all solid waste in Ghana was

incinerated. The practice was discontinued due to the expense and localised air pollution, but the resulting build-up of solid waste, particularly in cities, has created a legal liability for MMDAs.¹¹²

Since solid waste disposal is a local government mandate subject to competitive tenders, and still largely dependent on fiscal transfers from central government, the MLGRD, which oversees solid waste management nationally, has the opportunity to redirect this industry.113 Where plastic waste is collected, sorted and reused in what is typically a labour-intensive activity, it can be used in road construction, in brick manufacturing and as an energy feedstock. 114 Crucially for Ghana's cities, the recycling of plastic waste would prevent the blocking of stormwater drains, removing a key cause of urban flooding in the process.115 It would also reduce a source of disease, given that Ghana's Health Service has linked solid waste pollution to the spread of malaria, diarrhoea and typhoid, which jointly account for 70-85% of out-patient cases at public health facilities.116 The US\$5.7 million pyrolysis, solar PV and biogas hybrid plant being built in Kumasi will generate 400kW of electricity and, more importantly, provide learning and capacity-building opportunities required to generate the 50MW of "waste to energy" electricity that is targeted in the REMP by 2030.117

Achieving this mode of circular industrial activity will require the MLGRD to oversee new partnerships between MMDAs responsible for waste management, waste pickers and private waste handling companies.¹¹⁸

3.3 DEVELOP LOCAL FISCAL CAPACITY TO ENHANCE REVENUE

How cities raise and spend their money is a crucial indictor of what they value and what they will become. What is taxed, what public sector investment prioritises and the spatial specificity of public sector investments within cities is very often symptomatic of underlying visions, and sometimes the lack of vision, of the urban future. The spatial configuration of taxes and levies and the spatial allocation of public investment provide a key instrument with which to shape urban form.

In Ghana, it is national government that exercises this influence and agency, given the partial nature of fiscal devolution and continued dependence on central government budget transfers, most obviously the District Assembly Common Fund, and donors. 119 This situation prevails even though administrative and fiscal decentralisation is entrenched in the 1992 Constitution and codified in the Local Government Act 462 1993, the Local Governance Act 936 2016, the Intergovernmental Fiscal Decentralisation Framework 2007 and Public Financial Management Act 921 of 2016. Revenue collected by MMDAs accounts for less than 0.2% of Ghana's GDP120 and Internally Generated Funds in Ghana persistently decline in election years, hinting at the clientelism that underpins Ghana Revenue Authority activities in the absence of policy enforcement. Flows from the District Assembly Common Fund to MMDAs are inadequate and irregular, and weak monitoring of these funds makes citizen-led urban development difficult.¹²¹ Moreover, up to 80% of the budget transferred to MMDAs is prescribed for central government programmes such as School Feeding and the Nation Builders Corp.

The implications of centralised fiscal control are not limited to the loss of a key urban planning instrument. Low levels of MMDA revenue collection truncate national revenue collection and the ability to invest in the public infrastructure that supports urban life and stimulates economic growth.122 As of 2019, Ghana describes itself as being in a "post-IMF era", a reference to painful reforms imposed on the country after debt defaults in the 1980s and 16 subsequent International Monetary Fund bailouts. Ghana's domestic and foreign debt (at 57.4% of GDP) and budget deficit (4.2% of GDP) are not problematic in 2019, but the country is in a fiscally expansive phase that includes a 28% increase in public sector investment and a 156% increase in the budget for infrastructure in 2019.123 Both domestic and foreign debt have increased annually since 2013 as the country looks to new investments to boost growth and unlock development.124 Ghana has also been active in the bond market, and recently agreed a reported US\$66 million finance deal to improve coastal port facilities and a US\$2 billion loan for a national programme of road and bridge improvements

as part of a bauxite supply agreement. Servicing Ghana's debt, while accelerating the rollout of much-needed urban infrastructure and services, is crucial to protecting the country's sovereignty and hard-won development progress. Debt servicing is contingent on both deepening and broadening the tax net and taxing the urban boom to reduce dependence on extraction and commodity tariffs and Value Added Tax (VAT). VAT, which contributed approximately 23% of total tax revenue in 2018, is a regressive form of revenue generation, placing a disproportionate burden on households that spend a large portion of their income on goods and services. VAT

The 2019 budget highlighted revenue collection reforms, including new electronic payments, the use of "third party" data to broaden the tax net, deployment of the Nation Builders Corps to identify and register taxpayers and implementation of an ECOWAS Common External Tariff to prevent crossborder smuggling and dumping.¹²⁷ At the city scale, where growth and wealth is concentrated, however, stories of tax evasion abound and the public sense is that the tax net remains porous even for those who are paying some tax.128 The Institute for Fiscal Studies estimates that only half of the 8 million potential taxpayers actually pay any income or property tax, and, while tax revenue as a percentage of GDP has increased in recent years to 17.6%, it remains below the regional average of 18.2% and the Organisation for Economic Co-operation and Development (OECD) average of 35%.129

Experiences elsewhere suggest that a combination of technology, social partnerships, effective communication and visible links between taxes and services is necessary to improve uptake¹³⁰. Currently, mayors are appointed by the president, approved by the Metropolitan Assembly and can be voted out by a two-third majority. This arrangement limits the extent of practical devolution and decentralisation and undermines local accountability and citizen-led development. The specific need in Ghana is for a new social contract between mayors and citizens and higher levels of accountability on both sides, to break the low-level equilibrium reached between elites and the disenfranchised in the urban property, state support and taxation systems. The revised NUP has



Photo credit: nicolasdecorte

to outline a carefully scheduled fiscal devolution accompanied by capacity-building and oversight to prevent overborrowing by MMDAs, and leading ultimately to the election of mayors by local citizens. Mayoral election by local citizens would open the door to a carefully scheduled fiscal devolution accompanied by capacity-building and oversight to prevent over-borrowing by MMDAs.¹³¹ It could also create opportunities for Ghanaian cities to access new sources of financing, including significant investments through China ExIm, climate funds, digitalised banking and private equity.¹³²

There are regional precedents for cities becoming a source of rather than only a drain on fiscal resources. Lagos' local economic development and generation of a local tax base has dramatically reduced dependence on redistributed oil income from the central government. Apart from ongoing capacity-building efforts and political commitment to devolution, the NUP Revision needs detail on three specific fiscal proposals.

3.3.1. Enhancing property tax and land value capture

As Ghana strengthens its tenure regime and land cadastre, it will be able to deliver more reliable urban services and, in exchange, improve collection

of revenues for land and services.¹³⁴ The Lands Valuations Division in the national government is responsible for setting the property values and MMDAs are required to collect property tax. Actual property tax collection is, however, ad hoc and inconsistent. The GUTT heard examples of tax collection once every 10 years, a decline in property tax collection in election years and insistence on cash payments being made at the household door rather than electronically. As a result, "property rates and development charges" and "permits" contributed just 23% and 13.5%, respectively, of Accra's total revenue in the 2016/17 financial year. MMDAs rely disproportionately on the collection of petty taxes (advertising, market tolls, rates, fees, fines, rent from landed property, cattle pounds), while holding inadequate information to enforce development charges and property taxes. The sale of advertising and billboard space provided a relatively large 8% and lorry parking 4.5% in 2016/17, hinting at the imbalance in MMDA revenue streams.135

While waiting for public services, it is common for urban households to pool their private resources to procure their own electricity poles and extend the electricity grid or to build new roads that service their new houses. This mode of crowding in private household investment is effective for those who can afford it but makes it tricky to tax the urban boom and marginalises the state in urban planning and obviates the role of fiscal instruments in controlling urban sprawl or in cross-subsidising to poorer urban households. Property taxes and development charge collection could be used to arrest urban sprawl and reward compactness, by encouraging mixed land use and multi-family dwellings. Where adjusted for rising land values these taxes provide a means of value capture for the state. 136

3.3.2. Sale of bulk electricity to major MMDAs

The sale of bulk electricity (and potentially bulk water) to Ghana's six metropolitan cities, would enable these cities to draw on the advantages of proximity to citizens in tailoring electricity services (including the provision of additional free basic electricity above the existing allowance and the application of step-tariffs) to meet local need, while also enhancing payments for electricity and revenue generation. More reliable, and safer electricity is essential for Ghana's urban expansion and the creation of small businesses¹³⁷ and is most easily provided by MMDAs that understand the requirements, and ability to pay, of local businesses and households.

Cities are well placed to draw on the technology innovations that have opened up new generation options and removed the natural monopoly status of electricity generation. In the process, they can incorporate households and companies among the suppliers of urban electricity. A diversity of supply is necessary to stabilise Ghana's grid and support urban economies and manufacturing. Ghana relies heavily on the Akosombo hydroelectric dam on the Volta River (south-eastern Ghana), with just over 1GW of capacity. Low water levels in the Volta since 2014 have affected the capacity and reliability of the scheme, and in 2015 severe electricity supply challenges cost the nation an average of US\$2.1 million per day in loss of production.¹³⁸

The ability to procure bulk electricity from the national utility would allow Ghana's six metropolitan cities and towns to oversee the transition from a 'linear' (generation—wires—customers) electricity system to one that enables cities to draw on multiple customers, and a bidirectional flow between the urban

and the national grid would provide much-needed diversity and stability to the Ghanaian grid and also unlock the benefits of energy sector innovation. The same allowance would give practical meaning to the public finance requirement that MMDAs ensure that at least 5% of the physical projects or programmes in their Annual Action Plans focus on climate change and disaster risk reduction, a requirement that many MMDAs have struggled to comply with.

3.3.3. Digitalisation of urban revenue collection

Multiple anecdotes confirm the presence of rent-seeking behaviour among some local government officials and Ghana Revenue Authority officials charged with the collection of property taxes and development charges. Vice-President Bawumia is overseeing a digitalisation of property tax payments that will cut through corruption and enhance revenues. Effective use of simple on-line and mobile phone-based registration and payment systems could contribute to higher compliance, as it did in Indonesia. 139

Where technology is able to tax the urban boom and expand the tax base, it will enhance urban planning capacity significantly.¹⁴⁰ To be effective, it will have to be supported by mayors who are accountable to the needs of their local electorate.

Building on the back of early NUP successes, there for the MLGRD and MMDAs to work together to combine new technologies and new partnerships with community-based organisations, so as to quadruple property tax revenue over the next five years. 141 Without a definitive property tax, Ghana not only will forego a key source of revenue for investment in much-needed urban infrastructure and services but also will be urbanising without a key instrument to curtail the current sprawl of Accra, Kumasi, Tamale, Sekondi-Takoradi and Ho. 142

The same revenue will allow MMDAs to act on the Municipal Finance Bill approved by Parliament late in 2019, allowing them access to domestic finance markets. While legislation is clear that municipalities are required to take responsibility for their own debt servicing, national government underwriting remains a good idea for most Ghanaian MMDAs, to ensure they secure finance on reasonable terms and avoid excessive borrowing.



Photo credit: Anton Ivanov

4. Safety-Checking the Shift in Industrial Strategy

Adjusting industrial strategy – even when motivated by the desire to link industry and rapidly growing cities, align with the global climate change response, or promote social inclusion as outlined in this guideline – is risky and can easily contribute to the types of employment losses and macroeconomic instability that rules out the political scope for much-needed innovation and transition. This guideline proposes a recalibration of Ghana's industrial strategy in light of climate change and urbanisation needs. To gauge the feasibility and risk of a Ghanaian industrial strategy designed to meet the needs of Ghana's cities with low-carbon goods

and services, the GUTT commissioned a comparison of the macro-economic implications between:

- A conventional industrial strategy represented by projects that are already in the 10 Point Pillars of the Ministry of Trade and Industry's Industrial Transformation Agenda (focused on value addition of agricultural and chemical produce and "revitalisation, One District One Factory, anchor industries, industrial parks and SEZs")¹⁴⁴. Termed "Standard Industrial Policy" in the model, this pathway resembles Ghana's existing industrial strategy;
- A strategy designed to supply low-carbon goods and services to Ghana's rapidly growing towns (built around investments in transport infrastructure, low-cost housing, support for

informal and small-scale businesses operating in cities, renewable energy, waste recycling, urban agriculture and sustainable and local manufacturing). Termed "Cities Matter" in the model, this pathway seeks to capture the innovations proposed in this NUP Revision Guideline, many of which are based on existing government policy priorities, particularly the newly released Ghana Infrastructure Plan, that have not yet been implemented. 145

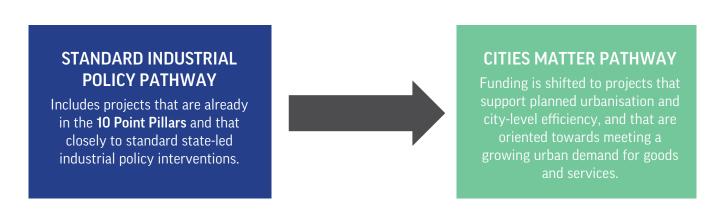
The comparison was made using a 29-sector Social Accounting Matrix (SAM) to represent the Ghanaian economy (Figure 5). There are many important aspects of both industrial and urban

development that a SAM has limited ability to capture. These include innovation, governance, confidence in government, the social externalities of inequality and marginalisation, or the feedback loops from environmental degradation (including greenhouse gas emissions) to human well-being and development. The model is, however, useful in tracking differences in macro-economic parameters that rise from two comparable investment scenarios.

The respective industrial strategies were differentiated by the sectors government targeted with an investment of GH¢4.2 billion (US\$775.8 million) in each.

Figure 5

Two industrial development pathways compared in the Social Accounting Matrix¹⁴⁶



CORE 10 POINT PILLARS AND OTHER PROJECTS AND INTERVENTIONS

Projects that would be compatible with both industrial development approaches, and therefore would not lead to different outcomes. These projects and interventions are not considered as part of the multiplier analysis. These would include, for example, interventions aimed at creating a more conducive investment climate or reduced transaction costs. Some investment in bulk infrastructure, for example, will be in both pathways.

Table 3

Modelled allocation of budget under the "Standard" industrial strategy

Type of project	SAM model sector allocation	Investment (GH¢ millions)
Livestock	Livestock and livestock products	315
Agro-processing	Food, beverages and tobacco	1,929
Garment and textiles	Textiles, clothing and leather	42
Chemicals and pharmaceuticals	Chemicals	1,749
Plastics and packaging	Chemicals	50
Electrical and electronics	Equipment and machinery	25
Other manufacturing	Other manufacturing	45
Building materials	Other manufacturing	50
Services	Equal distribution across services sectors (trade, transport and storage, accommodation, ICT, finance, real estate, business services)	17
Total		4,221

The Cities Matter pathway involved reallocating the same GH¢4.2 billion (US\$760 million) from the Standard Industrial Policy pathway towards low-carbon urban infrastructure and services. The actual allocations in the Cities Matter pathway were based on input from local consultants and existing policy priorities. The houses built by Sustainable Housing Solutions and the United Nations Office for

Project Services at Amasaman, near Accra, offer an example of the type of investment envisaged under this scenario. After an initial pilot, Sustainable Housing Solutions intends to build 200,000 affordable and sustainable houses drawing on solar power and using energy-efficient, locally sourced material.¹⁴⁷

Table 4

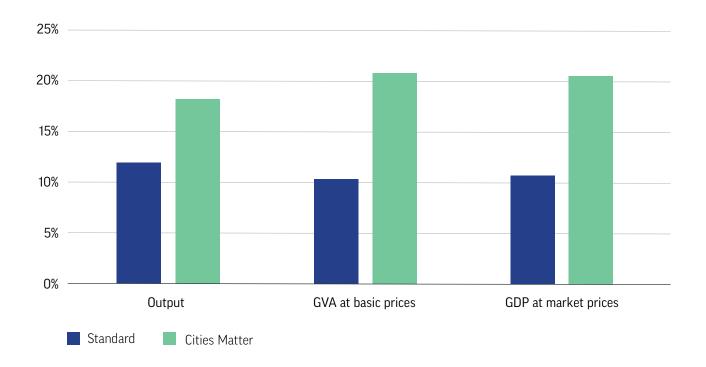
Modelled allocation of budget under "Cities Matter" industrial strategy

Type of project	SAM model sector allocation	Investment (GH¢ millions)
Small-scale/informal sector support (including commercial zones)	Trade, business services, transport and storage, real estate	844.2
Low-cost housing	Construction, sustainable manufacturing, wood and paper	633.2
Transport infrastructure	Construction, sustainable manufacturing, wood and paper	633.2
Renewable energy (PV)	Renewable energy	633.2

Type of project	SAM model sector allocation	Investment (GH¢ millions)
Biogas to electricity	Renewable energy	633.2
Sustainable local manufacturing (including building materials)	Sustainable manufacturing	42.2
Urban agriculture	Fruit and vegetables	253.3
Technology-based urban management	Business services, ICT	211.1
Waste recycling	Water supply and sewerage	337.7
Total		4,221

The modelled SAM results comparing the macroeconomic impact of investments in support of the respective industrial strategies show higher "output", "gross value add" and "GDP" under the Cities Matter scenario. This is attributable to rapid growth in the construction and trade sectors on the Cities Matter pathway and the higher economic multipliers on investments relative to the same investment under the Standard scenario (Figure 6). Growth through these sectors is familiar to Ghana and will not require significant new skills or relocation of labour.¹⁴⁸

Figure 6 Modelled comparison of changes in economic growth proxies under two different industrial development pathways 149



Labour earns more on both modelled pathways, but relatively more on the Cities Matter pathway. The exception is labourers in rural primary industry, who are affected by the shift of public stimulus away from agriculture. The Cities Matter strategy produces higher household income, except for some households dependent on rural non-farm income (Figure 7).150 In general, linking industrialisation with urbanisation, as captured by the Cities Matter investment scenario, is better for labourers in both rural and urban economies, suggesting that an industrial strategy designed around the needs of cities would simultaneously benefit workers and companies in rural areas through rural-urban linkages and crucial work creation opportunities. Creating the type of work that unemployed people can access and undertake in cities should be a definitive goal of Ghana's transition to a low-carbon upper-middle-income country. While some stranded fossil fuel assets may be unavoidable in the transition, stranded workers present too many negative implications for Ghana and are incompatible with the notion of a "just transition". Fortunately for Ghana, waste recycling

and repurposing, reverse vending, waste to energy installations, the fitting and servicing of household-scale renewable energy and water and sanitation systems that treat water on site, the provision of nutritious local foods to the urban professional class, safe and convenient mobility that does not produce particulate pollution, and other components of sustainable urbanisation, are not only proven technologies but also provide the type of local, labour-intensive work that people in Ghana's urban centres could undertake, and that is much-needed in the country's rapidly evolving cities.

Give the extent of economic growth stimulated, GHG emissions would be expected to increase under both pathways. Significantly, emissions increase by 50% under the Standard pathway, largely through land-based emissions, but by just 4% under Cities Matter. This reveals the potential for low-carbon growth when industry is linked to the demands of growing but sustainable cities. This translates to a saving of 18.4 MtCO₂e per annum on the Cities Matter pathways.

Figure 7

Percentage change in labour income under the two different industrial development pathways, by household type

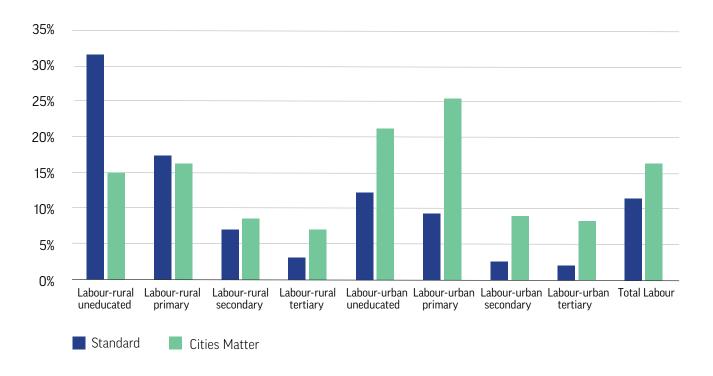
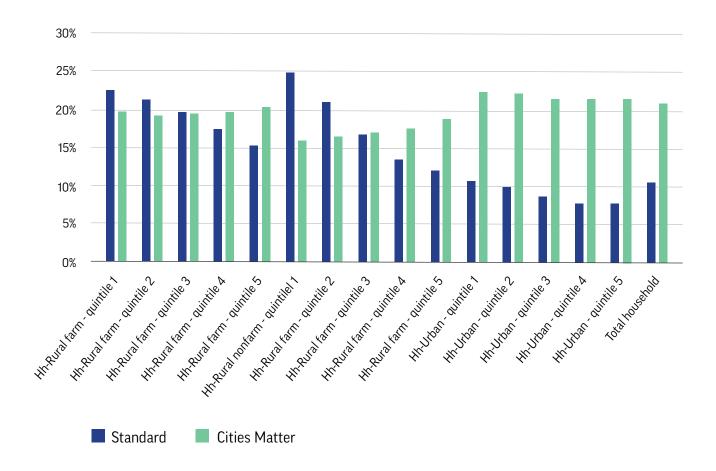


Figure 8

Percentage change in household income under the two different industrial development pathways, by household type

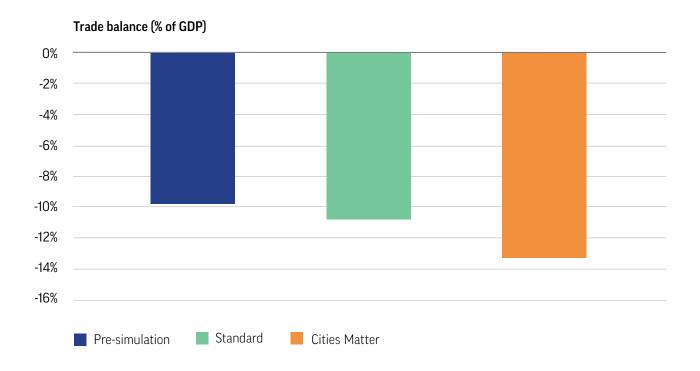


The Cities Matter pathway does rely on a greater share of imports in the model, which means a marginally higher trade deficit on this pathway. This finding does not factor in the impact of carbon constraints on trade mentioned in Section 3.2. Neither does it adequately capture the dynamic effects that this pathway could unleash when

demand is stimulated and imported goods are substituted with goods and services produced by Ghana's new and evolving manufacturing capacity. In addition, the model does not factor in the *realpolitik* of international trade that so often has adverse impacts on small, open economies such as Ghana's.

Figure 9

Ghana's trade balance under the two modelled pathways relative to trade balance without an industrial strategy investment



What the SAM result does show, importantly, is that a shift in industrial strategy to anticipate a carbon-constrained global economy and the multiple needs of an urbanising population, need not pose a risk to Ghana's economic stability, where this shift can be linked to the demand that will arise from the urbanisation trend. On the contrary, where industrial, climate change and urban strategies are aligned, as proposed in the NUP Revision Guideline, this would provide an untapped macroeconomic stimulus to the construction and trade sector, leading to a near-doubling of GDP growth. Importantly, the same industrial strategy would

contribute to more liveable Ghanaian cities, with more labour opportunities linked to local services and goods manufacturing; more affordable sources with longer value chains into the country's interior and with the agriculture sector; less water pollution; cleaner air; easier mobility; and enhanced international competitiveness. In this sense, linking Ghana's industrial strategy with the country's urbanisation policies is safe from not only a macroeconomic perspective but also a humanitarian and development imperative.



Photo credit: Anton Ivanov

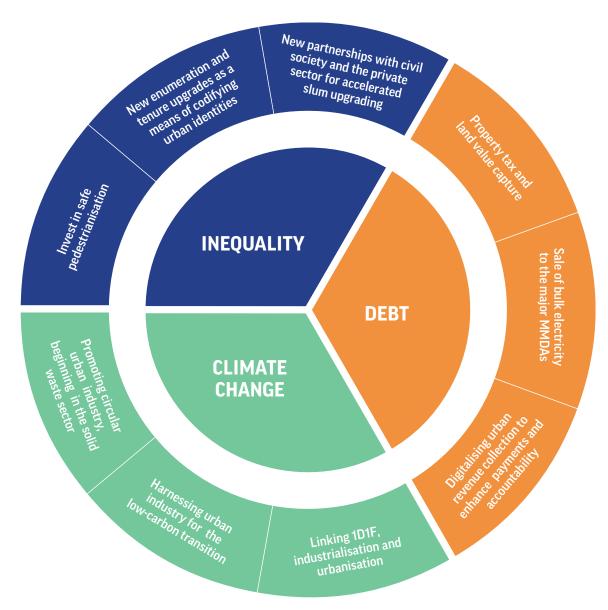
Conclusion

Ghana is one of Africa's "early urbanisers" 152 and it is difficult to find a recent global urban idea or technology that has not been considered or piloted somewhere in the country (e.g. street naming, enumeration, biodigestion, mini-grids, BRT, slum upgrading). However, in spite of a full suite of progressive policies, a longstanding political commitment to cities, decentralisation and devolution and a NUP comprising an array of projects and programmes and supported by numerous institutions, Ghana somehow lacks key components of functional urbanism. As a result, Ghana's cities are unable to fully harness the urbanisation trend and the environmental, social and economic benefits that sustainable urban development can provide.

Ghana's NUP, published in 2012, is both thorough and sophisticated in its content. ¹⁵³ The challenge for this NUP Revision does not lie in a lack of policy or policy instruments but rather relates to how to make the NUP more implementable. Ghana's multiple evolving alliances between local leaders, political parties and urban organisations make for a complex and nuanced political landscape that has been crucial in avoiding the whole-scale electoral violence seen in Kenya and Côte d'Ivoire. ¹⁵⁴ The opportunity the NUP Revision offers is to convert this political arrangement into economic and development progress.

Understanding cities as strategic resources for addressing risks that face the whole country provides a coordinating perspective for the implementation of existing projects and programmes. The three national risks proposed in this NUP Revision are inequality and social exclusion; climate change; and debt and fiscal instability.

Figure 10 **Summary of Ghana's NUP Revision Guideline**



Unplanned cities will both incubate and amplify these risks, but the revised NUP offers the opportunity to align the efforts of ministries, stateowned enterprises and civil society to turn these risks into opportunities in ways that place Ghana's cities at the centre of national development.

Social inclusion is both a prerequisite for, and an outcome of, effective policy. Rising inequality and social exclusion, in contrast, make governance untenable. Reasserting government influence on market economies (particularly the allocation of land) in ways that are strategic and productive and generate socially desirable outcomes is a global

challenge. Ghana's government will have to engage in this challenge if it is to avoid the default in which urban expansion exacerbates national inequality. The NUP could support social inclusion in the short term by outlining the case for:

- Investing in safe pedestrianisation;
- Codifying urban identities through new enumeration and tenure upgrades;
- Accelerating slum upgrading and service delivery through new partnerships with citizens, civil society and the private sector.

Climate change threatens the development gains of all countries and demands new approaches to industrialisation. Ghana is in the process of building its industrial sector in the hope of creating employment and improving its balance of payments. It has the great advantage of doing this with full knowledge of the urbanisation trend and rising awareness of the implications of climate change on the global economy. Ghana's transition to a climate-resilient society can be addressed by empowering cities as part of a structural transition of the economy that will see income and jobs being created in low-carbon manufacturing through:

- Linking 1D1F, industrialisation and urbanisation;
- Harnessing urban industry for the low-carbon transition;
- Promoting circular urban industry, beginning in the solid waste sector.

The "post IMF era" and "Ghana Beyond Aid" initiatives depend on new streams of revenue from and for cities. Ghana is in the midst of a fiscal expansion phase that oil revenues alone cannot finance. During this phase, it will be possible to manage public debt and the risk of debt default by building local fiscal capacity that will expand the tax base, enhance revenue collection and tax the urban boom in ways that influence spatial form and development. In doing this, Ghana will fulfil its long-standing devolution ambition. Specific short-term steps that support this outcome include:

- Enhancing property tax and land value capture off the back of tenure upgrades;
- Selling bulk electricity to metropolitan cities;
- Digitalising urban revenue collection to enhance payments and accountability.

By focussing on the role of cities in addressing three national risks, the NUP Revision Guideline does not constitute a radical rewrite of urban policy – an approach to reform that has been unsuccessful in Ghana¹⁵⁵ – or jeopardise existing momentum around infrastructure programmes, town planning and administrative capacity. Instead, the Guideline

provides coherence, through a shared sense of strategic vision, to the multiple efforts to achieve sustainable urban development.

The critical need at this stage of Ghana's urban development is to cut through the multiple layers of policy and strategy that have built up over time and coordinate the public and private investments that seek to develop Ghana's cities. Where successful, Ghana's cities not only will save an estimated 18.4MtCO₂e per annum¹⁵⁶ and establish a regional precedent but also will be well placed to benefit from the global finance and technological innovations that are being mobilised to support the implementation of the SDGs and the Paris Agreement.¹⁵⁷

Achieving this will require heightened capacitybuilding within all tiers of government responsible for cities and towns and the forging of partnerships that reduce the burden on the state.¹⁵⁸ While Ghana has talented urban planners, the imposed hollowing-out of local government capacity that occurred in the wake of the 1980 debt crisis means the country has just 1.2 accredited planners per 100,000 urban residents, compared to 55 in the United Kingdom for example. 159 The United Nations Settlements Programme (UN-Habitat) (2016) reports 0.6 planners per 100,000 citizens (rural and urban), compared to 37 in the United Kingdom.160 This constraint highlights the imperative of policy coherence and partnerships. New partnerships will have to shift the 2019 equivalents of asafo from political allies to economic and service delivery partners in support of citizen-led development.

This strategic shift has to be accompanied by a broader effort, beyond the remit of the NUP, to build replicability, transparency and accountability to all urban citizens, into Ghana's urban governance. This includes access to quantitative and qualitative data – as a public good – and higher levels of transparency and accountability. The adage shared in the GUTT, that "Ghana lives on rumour", undermines investment, partnership and inclusive development. Where successful, the NUP Revision will convert Ghana's sophisticated and mature policy landscape into new economic and development action.



Urbanisation and the National Urban Policy in Ghana

Urbanisation in Ghana began under colonial rule as rural people moved to cities to take advantage of employment in new industries. ¹⁶² Cities were envisaged as a system of colonial control but unwittingly enabled the formation of community-based social and militia groups (*asafo*), which led the anti-colonial struggle and ultimately delivered independence in 1957. At independence, both contending political parties – the Convention People's Party and the United Gold Coast Convention – acknowledged the importance of urban constituencies and sought to adopt the *asafo*. Neither party was definitively successful in this.

The need to earn and retain votes from Ghana's urban civil society has had a stabilising influence on the country's politics. Prior to the multiparty "Fourth Republic" era that began in 1992, community groups, including religious leaders, fitness clubs and traditional authorities, were central players in both supporting and resisting further efforts at ethno-nationalism and authoritarian control. In spite of this, most community-based organisations remain peripheral to the political and economic power concentrated in the hands of an urban elite and traditional authorities, and community-based organisation remain a largely untapped resource when it comes to service delivery and economic growth.

The urban landscape of Ghana comprises two large cities, GAMA, which evolved from a series of fishing towns and in 2019 had a population of over 4 million, and Kumasi, with a population of just over 2 million, plus smaller but rapidly growing towns such as Tamale, Takoradi, Sekondi, Cape Coast, Obuasi, Koforidua, Ho and Sunyani, each with fewer than 1 million people. A long-running policy tension in Ghana is created by public policies that concentrate investment and industry in Accra and

Kumasi relative to those that seek to decentralise and distribute investment. Officially, the National Spatial Development Framework 2015–2035 suggests that turning Accra into a "world-class city" should be the focus, with smaller towns providing an overflow when the pressure in the capital becomes untenable. In practice, the strategic intent is different across programmes and has vacillated over time. Regardless, the demographic shift towards cities and towns continues.

The long-standing alliances between political parties (particularly the incumbent National Patriotic Party) and urban constituencies distinguish Ghana from most sub-Saharan African countries. ¹⁶⁴ Ghana's 2010 census heightened the political attention to cities, providing a clear signal that the majority population was, and would remain, urban. It was unsurprising, then, when Ghana was the first African country to approve a NUP under the formal United Nations Human Settlements Programme (UN-Habitat) process in 2012.

The NUP, based on a detailed diagnostic, was able to draw on Ghana's internationally acclaimed urban planners and a range of global urban narratives to bring Ghana's "urban age" into fresh contrast. The release of the NUP gave impetus to existing programmes, often rebranding them (LUSPA replaced the Town and Country Planning Department established in 1945), and catalysed new programmes and new institutions such as GUMPP. In 2019, a team of researchers from KNUST in Kumasi reviewed seven NUP flagship projects in MMDAs spread across each of the Southern, Central and Northern regions through a multi-criteria lens (Table A1). 165

Table A1

Programmes and criteria for evaluation applied in the Inkoom et al. (2019) NUP Assessment

NUP projects evaluated	Criteria for evaluation
 Street Naming and Property Addressing (SNPAS) Land Use and Spatial Planning Authority (LUSPA) Ghana Urban Management Pilot Project (GUMPP) Ghana Urban Transport Project (GUTP) Urban Public-Private Partnerships Local Government Capacity Support Project (LGCSP) Participatory Slum Upgrading Project (PSUP – phase 3) 	 Sustainable, spatially integrated and orderly development of urban settlements Improved local government revenue and balance sheet Shift in public sector budget allocations to support the broad objectives of the NUP Private sector and donor investment in fixed capital and local capacity attracted or reallocated by the programme Qualitative improvements in critical urban service delivery Contribution to low-carbon development or climateresilient urban development Local employment or work opportunities created Shift in public sector narrative regarding urbanisation as an opportunity Contribution to a "sense of place, right to the city or new urban identities

The findings were broadly positive but also revealed limitations and gaps (see Table A2). The review echoed previous work in its revelation of urban policy as piecemeal, project- and programme-based and lacking in a clear metropolitan perspective capable of linking the governance of land and space with investments in infrastructure. The KNUST team's report concluded with a set of recommendations:

- Smart mobility development with a focus on people's mobility, information logistic mobility and information mobility;
- Tighter controls over the issuing of land parcels and development rights, so as to prevent the *ex post* issuing of certificates and land title;
- Urban development financing by focusing on public-private partnerships and other publiconly initiatives that take advantage of urban agglomerations;
- Planning and managing urban sprawl through space economy and densification initiatives, and coupling this with a review of the urban land tenure systems;
- Replication of participatory slum upgrading interventions in other slums in the cities while

- abating the formation of new slums through initiatives that promote housing affordability;
- Promoting spatially integrated hierarchies of settlements to allocate functions and foster synergies.

The Inkoom et al. recommendations support the publicly articulated consensus among urban practitioners in Ghana that the urban development policy environment is overly complex and difficult to change. 168 Ghana has 34 ministries and no shortage of civil society partners or policies supporting urbanisation, including the 1992 Constitution, the Local Governance Act (936) of 2016 and the Ghana Shared Growth and Development Agenda II 2014-2017. The 2019 budget went further by highlighting strategic projects critical for cities, including 1D1F, the National Entrepreneurship and Innovation Plan, the Infrastructure for Poverty Eradication Programme, Free Senior High School and the Nation Builders Corps. What Ghana does not yet have is coherent urban development with clearly defined roles for respective ministries, state-owned enterprises, companies and investors, and a shared sense of the urban future that Ghana is seeking to create.

Appendix B

Some of the Multiple, but Disparate, Actors Involved in **Urban Development in Ghana**

Entity	Description
Public entities	
MLGRD	The Local Governance Law of Ghana (Act 936 of 2016) grants the MLGRD primary responsibility for ensuring sustainable cities. This includes the legal obligation to establish both the built environment and the urban governance required for socially and economically inclusive, safe cities and environmental sustainability.
LUSPA	LUSPA is the statutory body for urban land use planning and spatial organization. Its formation replaced the work of the Town and Country Planning Department. LUSPA was established to "manage and promote harmonious, sustainable and cost-effective development of human settlements in the country and in accordance with sound environmental and planning principles".
National Development Planning Commission	Established under Articles 86 and 87 of the 1992 Constitution as part of the Executive, the Commission works closely with every president to prepare the Coordinated Programme of Economic and Social Development Policies, which the Constitution requires the president to submit to Parliament within two years of assuming office. The Commission also led the process of preparing the country's first long-term (25-year) national development plan, <i>Vision 2020</i> , along with its first medium-term plan, <i>Vision 2020</i> : The First Step 1996–2000. Other medium-term plans the Commission has led in preparing are the Ghana Poverty Reduction Strategy (2003–2005); the Growth and Poverty Reduction Strategy (2006–2009); and the Ghana Shared Growth and Development Agenda I (2010–2013) and II (2014–2017).
Private entities	
Innovation Hub	The Innovation Hub is a national government IT-based incubation establishment that seeks to promote entrepreneurialism among youth. The idea is to connect mentors with youthful urban mentees with demonstrable acumen to succeed in business.
Accra Impact Hub	Accra Impact Hub is a subsidiary of a global network that seeks to employ social innovation to promote sustainable cities. Its models works similarly to the Innovation Hub in that it creates interactive space for cross-fertilisation of ideas to bring about inclusive, innovation solutions to some of societal challenges.
ArchiAfrika	ArchiAfrika seeks to integrate socio-cultural design in the built environment so as to contribute to achieving sustainable cities. ArchiAfrica attempts to promote urban sustainability through "design strategies developed within the continent which address the challenges of [the] future and engage the next generation of professionals in this critical dialogue".

Entity	Description
Civil society entities	
Star Ghana Foundation	Star Ghana Foundation seeks to empower the voiceless to have a say in decision-making. The goal is to promote transparency, accountable and inclusive governance that serves the needs and aspirations of all. Just like People Dialogue below, Star Ghana Foundation believes that active and inclusive citizenry in decision-making guarantees better development outcomes.
People's Dialogue	People's Dialogue is a pro-poor civil society organisation that seeks to create and enhance dialogue between the urban poor (especially in slums and informal settlements) and local authorities to find alternative solutions to the usual confrontational engagements arising from threats of or actual evictions in informal and slum settlement. People's Dialogue works under the umbrella of GHAFUP. Drawing inspiration from and collaborating with Shack/Slum Dwellers International, People's Development empowers the urban poor to enable them engage meaningfully with city authorities in participatory decision-making processes. Like experiences elsewhere, GHAFUP has chalked up some successes through this engagement, thus promoting sustainable cities.
Coalition of Students in Urban Advocacy and Research	This is an initiative by students to promote advocacy to find effective solutions to urban problems in Ghana. The coalition presented at our last GUTT meeting in early September. If they are successful, they could add another layer of "politicisation" of urban issues in Ghana, which will in turn lead to responsive and accountable city governance.
Institute for Democratic Development	This is a civil society think tank that seeks to promote democratic governance in Ghana and beyond. Its scope of work includes local government and public services reforms as well as citizen empowerment and community action. As with Star Ghana Foundation and People Dialogue, empowering citizens means that it is poised to promote sustainable cities through inclusive, responsive and accountable urban development.
Ghana Centre for Democratic Development	This civil society organisation and think tank functions in a similar way to the Institute for Democratic Development in promoting sustainable cities.

Source: Based on submission to the author by Issahaka Fuseini (2019).

Endnotes

- 1 French, H., 2013. How Africa's new urban centers are shifting its old colonial boundaries. *The Atlantic*, 1 July. Available at: https://www.theatlantic.com/international/archive/2013/07/how-africas-new-urban-centers-are-shifting-its-old-colonial-boundaries/277425/.
- ² World Bank, 2019. World Bank data, Ghana. World Bank, Washington DC. Available at: https://data.worldbank.org/country/ghana.
- 3 World Bank, 2019. World Bank data, Ghana.
- 4 World Bank, 2019. World Bank data, Ghana; Vuylsteke, Y., 2015. 2015 Ibrahim Index of African Governance. Available at: http://mo.ibrahim.foundation/news/2015/the-2015-ibrahim-index-of-african-governance-key-findings; EPA, 2016. *Ghana Fourth National Greenhouse Gas Inventory Report*. Environmental Protection Agency, Accra. Available at: https://unfccc.int/sites/default/files/resource/gh_nir4-1.pdf.
- 5 World Resources Institute 2019. The World Lost a Belgium-sized Area of Primary Rainforests Last Year. Global Forest Watch. https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year?utm_campaign=GFW&source=socialmediakit&utm_medium=gfwsocial&utm_term=2018tcl_4_2019.
- 6 Vuylsteke, 2015. 2015 Ibrahim Index of African Governance; AfDB, OECD and UNDP, 2016. Sustainable Cities and Structural Transformation. African Economic Outlook 2016. African Development Bank, Organisation for Economic Development Co-operation and United Nations Development Programme. OECD Publishing, Paris.
- ⁷ Paller, J., 2019. *Democracy in Ghana, Everyday Politics in Urban Africa*. Cambridge University Press, Cambridge.
- 8 World Bank, 2015. Rising Through Cities in Ghana: Ghana Urbanization Review Overview Report. World Bank, Washington DC.
- ⁹ Jain, V., Sharma, A. and Subramanian, L., 2012. Road traffic congestion in the developing world. In *Proceedings of the 2nd ACM Symposium on Computing for Development*; Tsekeris, T. and Geroliminis, N., 2013. City size, network structure and traffic congestion. Journal of Urban Economics doi: 10.1016/j. jue.2013.01.002; Zhang, K. and Batterman, S., 2013. Air pollution and health risks due to vehicle traffic. Sci Total Environ. doi: 10.1016/j.scitotenv.2013.01.074.figure.
- ¹⁰ Grant, R. and Yankson, P., 2003. Accra. Cities, 20(1). 65–74; Fuseini, I. and Kemp, J., 2015. A review of spatial planning in Ghana's socio-economic development trajectory: a sustainable development perspective. *Land Use Policy*, 47. 309–320; World Bank, 2015. *Rising Through Cities in Ghana*.
- ¹¹ Cobbinah, P. and Niminga-Beka, R., 2017. Urbanisation in Ghana: residential land use under siege in Kumasi central. Cities, 60. 388–401.

- ¹² Brandful Cobbinah, P., Osei Asibeya, M., Opoku-Gyamfia, M., and Pepraha, C., 2018. Urban planning and climate change in Ghana. *Journal of Urban Management*, 8(2). 261-271.
- 13 World Bank, 2015. Rising through cities in Ghana.
- Lall, S.V., Henderson, J.V. and Venables, A.J., 2017. Africa's Cities: Opening Doors to the World. World Bank, Washington DC.
- 15 Cartwright, A., Palmer, I., Taylor, A., Pieterse, E., Parnell, S. and Colenbrander, S., 2018. *Delivering Prosperous and Inclusive Cities in Africa: NUPs to the Rescue?* CUT Working Paper; Fuseini and Kemp, 2015. A review of spatial planning; Owusu, G., 2015. Decentralized development planning and fragmentation of metropolitan regions: the case of the Greater Accra Metropolitan Area, Ghana. *Ghana J Geography*, 7. 1–24.
- ¹⁶ MLGRD, 2012. *National Urban Policy Framework and Action Plan*. Accra, Ministry of Local Government and Rural Development.
- ¹⁷ Inkoom, D., Amponsah, O. and Adabor, E., 2019. Half a Decade of Implementation of Ghana's Urban Policy: Stocktaking the Successes and Failures of Flagship Projects. GUTT Background Paper.
- 18 Cities Alliance, 2015. *Ghana: Urban Governance and Services*. Available at: https://www.citiesalliance.org/sites/default/files/Urban%20Governance%20and%20Services%20in%20Ghana.pdf.
- ¹⁹ Gurney, K., 2019. Platform/plotform. African Centre for Cities Seminar, 26–27 September; Minty, Z. and Nkula-Wenz, L., 2019. Effecting cultural change from below? A comparison of Cape Town and Bandung's pathways to urban cultural governance. *Cultural Trends*, 28(4). 281–293.
- 20 Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- ₂₁ Inkoom, D., 2018. *National Urban Policy Gap Analysis*. Cities Alliance Position Paper.
- ²² Shand, W., 2019. The Urban Finance Landscape in Ghana Mobilizing Investment in Sustainable Urban Infrastructure. GUTT Background Paper.
- ²³ Cloete, B., Ramkolowan, Y., Kaziboni, L., Malik, A. and Ohemeng, W., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways in Ghana. GUTT Background Paper.
- Rittel, H. and Webber, M., 1973. Dilemmas in a general theory of planning. *Policy Sciences*, 4(2). 155–169.
- wachsmuth, D., Cohen, D.A. and Angelo, H., 2016. Expand the frontiers of urban sustainability. *Nature*, 536. 391–393; Wachsmuth, D., Cohen, D.A. and Angelo, H., 2016. Expand the frontiers of urban sustainability. Nature, 536. 391–393; Stiglitz, J., 2019. If capitalism is broken, maybe it's fixable. *The Economist*, 8 July, excerpt from *People, Power, and Profits: Progressive Capitalism for an Age of Discontent* by Joseph Stiglitz. Available at: https://www.economist.com/open-future/2019/07/08/if-capitalism-is-broken-maybe-its-fixable.

- ²⁶ Andrews, M., Pritchett, L. and Woolcock, M., 2017. Looking like a state. The seduction of isomorphic mimicry. In *Building State Capability: Evidence, Analysis, Action*. Oxford University Press, Oxford; Cities Alliance, 2015. Ghana: Urban Governance and Services.
- ²⁷ Arup, 2016. Ghana metropolitan cities. Available at: https://www.arup.com/-/media/arup/files/publications/f/future-cities-africa--ghana.pdf.
- ²⁸ Ayebeng, E., Samuel, B., Afram, O. and Ankrah, J., 2014. Building permit acquisition in Ghana: the situation in Kumasi. Developing Country Studies, 4. 11–22; Cities Alliance, 2015. *Ghana: Urban Governance and Services*; Inkoom et al., 2019. *Half a Decade of Implementation of Ghana's Urban Policy*; Owusu, 2015. Decentralized development planning.
- ²⁹ Williams, M.J., 2015. *Bricks-And-Mortar Institutions Matter:* Project Delivery and Unfinished Infrastructure In Ghana's Local Governments. Working Paper. DFID, London.
- 30 Nchor, D. and Konderla, T., 2016. Economic multipliers and sectoral linkages: Ghana and the new oil sector. *Acta Univ Agric Silvic Mendelianae Brun*, 64. 635–642; Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- ₃₁ Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- wusu, 2015. Decentralized development planning; Inkoom, 2018. *National Urban Policy Gap Analysis*; Crentsil, A. and Owusu, G., 2018. Accra's decongestion policy: another face of urban clearance or bulldozing approach? In *International Development Policy: African Cities and the Development Conundrum*. ICRC, Geneva.
- 33 Gyamera, E., 2016. Land conflicts in Ghana, causes, effects and resolution. Conference Paper; Cobbinah and Niminga-Beka, 2017. Urbanisation in Ghana.
- ³⁴ Agyapong, F. and Ojo, T.K., 2018. Managing traffic congestion in the Accra Central Market, Ghana. *J Urban Manag*, 7. 85–96.
- 35 Alhassan, M., 2016. The economic effects of dumsor in Ghana. PhD submission.
- 36 Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- 37 Cities Alliance, 2015. *Ghana: Urban Governance and Services*; Mensah, J.K., 2015. The policy and practice of local economic development in Ghana. *Ghana J Geogr*, 7. 205–222.
- 38 Acuto, M., Parnell, S. and Seto, K.C., 2018. Building a global urban science. *Nat Sustain*, 1. 4–6.
- ³⁹ Cities Alliance, 2015. *Ghana: Urban Governance and Services*; Ravallion, M., 2019. Income inequality: challenges for measurement and policy. Public Lecture, Ungku Aziz Center for Development Studies, University of Malaya, 29 January.

- 40 Stiglitz, 2019. If capitalism is broken, maybe it's fixable.
- 41 Oxfam, 2018. Ghana: extreme inequality in numbers. Available at: https://www.oxfam.org/en/ghana-extreme-inequality-numbers.
- Bank of Ghana, 2019. Inflation target. Available at: https://www.bog.gov.gh/inflation_target/inflation-target-june/.
- 43 Oxfam, 2018. Ghana: extreme inequality in numbers; World Bank, 2019. World Bank data, Ghana.
- 44 Vuylsteke, 2015. 2015 Ibrahim Index of African Governance.
- ⁴⁵ AfDB, OECD and UNDP, 2019. *Macroeconomic performance and prospects. Jobs, growth, and firm dynamism. Integration for Africa's economic prosperity*. African Economic Outlook 2019. African Development Bank, Organisation for Economic Development Co-operation and United Nations Development Programme. OECD Publishing, Paris.
- 46 Paller, 2019. Democracy in Ghana.
- ⁴⁷ Paller, 2019. *Democracy in Ghana*; Abdulai, A.-G. and Hickey, S., 2016. The politics of development under competitive clientelism: insights from Ghana's education sector. *African Affairs*, 115(458). 44–72; Gadjanova, E., 2017. Electoral clientelism as status affirmation in Africa: evidence from Ghana. *The Journal of Modern African Studies*, 55(4). 593–621.
- ⁴⁸ Morrison, N., 2017. Playing by the rules? New institutionalism, path dependency and informal settlements in Sub-Saharan Africa. *Environment and Planning*. doi: 10.1177/0308518X17730581.
- ⁴⁹ Rode et al. 2019. National Transport Policy and Cities: Key policy interventions to drive compact and connected urban growth. https://urbantransitions.global/wp-content/ uploads/2019/08/CUT2019_transport-paper_FINAL-FOR-WEB.pdf.
- 50 Rode, P., Heeckt, C., da Cruz, N.F. 2019. *National Transport Policy and Cities: Key policy interventions to drive compact and connected urban growth*. Coalition for Urban Transitions. London and Washington, DC. Available at: http://newclimateeconomy.net/content/citiesworking-papers.
- 51 World Bank, 2015. Rising Through Cities in Ghana.
- 52 GhanaWeb, 2019. Road accident injuries, deaths cost Ghana \$230m annually. Available at: https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Road-accident-injuries-deaths-cost-Ghana-230m-annually-717412.
- 53 GhanaWeb, 2019. Road accident injuries, deaths cost Ghana \$230m annually.
- 54 World Bank, 2015. Rising Through Cities in Ghana.
- 55 GhanaWeb, 2019. Road accident injuries, deaths cost Ghana \$230m annually.
- 56 Crentsil and Owusu, 2018. Accra's decongestion policy.
- 57 Paller, 2019. Democracy in Ghana.

- 58 Chabal, P., 2008. Africa: The Politics of Suffering and Smiling. Zed Books, London.
- ⁵⁹ Morrison, 2017. Playing by the rules?; Paulais, T., 2012. Financing Africa's Cities: *The Imperative of Local Investment*. Africa Development Forum. World Bank, Washington DC.
- 60 Paller, 2019. *Democracy in Ghana*; Morrison, 2017. Playing by the rules?
- ⁶¹ Biitir, S. and Nara, B., 2016. The role of Customary Land Secretariats in promoting good local land governance in Ghana. *Land Use Policy*, 50. 528–536.
- 62 Ubink, J., 2002. Courts and peri-urban practice: customary land law in Ghana. *University of Ghana Law Journal*, 22. 25–77.
- Bawumia, M., 2019. Ghana pushes to eliminate paper from most services. Financial Times Africa Summit, October. Available at: https://www.ft.com/content/4ad6237c-f121-11e9-ad1e-4367d8281195.
- 64 Gough, K. and Yankson, P., 2000. Land markets in African cities: the case of peri-urban Accra, Ghana. *Urban Studies*, 37(13). 248–265; Biitir and Nara, 2016. The role of Customary Land Secretariats; Brobbey, C., 2019. Land conflicts in southern Ghana: a reflection of multiple ownerships of land and usufruct rights to land use. In *Trajectory of Land Reform in Post-Colonial African States*. *Advances in African Economic*, *Social and Political Development*. A. Akinola and H. Wissink (eds) Springer, Amsterdam.
- Danso-Wiredu, E.Y. and Midheme, E., 2017. Slum upgrading in developing countries: lessons from Ghana and Kenya. Ghana J Geogr, 9. 88–108.
- Obeng-Odoom, F. and Amedzro, L., 2011. Inadequate housing in Ghana. *Urbanization*. Doi: 10.5379/urbani-izziv-en-2011-22-01-004; Cobbinah and Niminga-Beka, 2017. Urbanisation in Ghana.
- 67 World Bank, 2015. Rising Through Cities in Ghana.
- 68 Collier, P. and Venables, A., 2016. Urban infrastructure for development. Oxford Review of Economic Policy, 32(3). 391–409.
- 69 World Bank, 2015. Rising Through Cities in Ghana; Cobbinah and Niminga-Beka, 2017. Urbanisation in Ghana.
- $_{70}$ Gyamera, 2016. Land conflicts in Ghana, causes, effects and resolution.
- 71 Vuylsteke, 2015. 2015 Ibrahim Index of African Governance.
- 72 World Bank, 2015. Rising Through Cities in Ghana.
- 73 World Bank, 2015. Rising Through Cities in Ghana.
- ⁷⁴ Marshall Nunbogu, A., IssahakuKorah, P., Cobbinah, P. and Poku-Boansic, M., 2018. Doing it "ourselves": civic initiative and self-governance in spatial planning. *Cities*, 74. 32–41.
- ⁷⁵ Lopes, C., Hamdock, A. and Elhiraika, A., 2017. *Macroeconomic Policy Framework for Africa's Structural Transformation*. Palgrave, Basingstoke.

- ⁷⁶ CUT, 2019. *Climate Emergency, Urban Opportunity*. Coalition for Urban Transitions. Available at: https://urbantransitions.global/en/publication/climate-emergency-urban-opportunity/.
- 77 AfDB et al., 2016. Sustainable Cities and Structural Transformation.
- TB UNECA, 2016. Economic Report 2016: Greening Africa's Industrialization. United Nations Economic Commission for Africa, Addis Ababa; UNECA, 2017. Economic Report 2017: Urbanization and Industrialization for Africa's Transformation. United Nations Economic Commission for Africa, Addis Ababa.
- ⁷⁹ Ministry of Finance, 2019. *Budget Statement and Economic Policy*. Available at: https://www.mofep.gov.gh/budget-statements/2019.
- Trading Economics, 2019. Ghana GDP from manufacturing. Available at: https://tradingeconomics.com/ghana/gdp-frommanufacturing.
- 81 World Bank, 2015. Rising Through Cities in Ghana.
- 82 Ministry of Finance, 2019. Budget Statement and Economic Policy.
- 83 Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- 64 Corden, W. and Neary, J.P., 1982. Booming sector and deindustrialisation in a small open economy. *The Economic Journal*, 92(368). 825–848; Sachs, J.D. and Warner, A.M., 2001. Natural resources and economic development: the curse of natural resources. *European Economic Review*, 45. 827–838; Mehlum, H., Moene, K. and Torvik, R., 2006. Institutions and the resource curse. Economic Journal, 116(508). 1–20.
- Bawumia, M. and Halland, H., 2017. Oil Discovery and Macroeconomic Management: The Recent Ghanaian Experience. WIDER Working Paper 2017/185. UNU, Helsinki.
- 86 CUT, 2019. Climate Emergency, Urban Opportunity.
- 87 Arup, 2016. Ghana metropolitan cities.
- 88 MoE, 2019. Renewable Energy Masterplan. Accra, Ministry of Energy.
- 89 GoG, 2015. Ghana's Intended Nationally Determined Contribution and Accompanying Note. Government of Ghana, Accra. Available at: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ghana%20First/GH_INDC_2392015.pdf.
- 90 Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- 91 EPA, 2016. Ghana Fourth National Greenhouse Gas Inventory Report.
- 92 CUT, 2019. Climate Emergency, Urban Opportunity.
- 93 Abdulai, I., Vaast, P., Hoffmann, M.P., Asare, R., Jassogne, L., van Asten, P. and Graefe, S., 2017. Cocoa agroforestry is less resilient to sub-optimal and extreme climate than cocoa in full sun. *Global Change Biology*. 1–14.

- 94 PwC, 2019. 2019 Budget Highlights A Stronger Economy for Jobs and Prosperity. PricewaterhouseCoopers. Available at: https://www.pwc.com/gh/en/assets/pdf/2019-budget-highlights.pdf.
- 95 Own calculations using UNCTAD, 2019. *Trade and Development Report 2019*. United Nations Conference on Trade and Development, Geneva. Available at: https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2526.
- Lovins, A., 2019. Highlights: the net-zero climate change conference in Oxford. Available at: https://www.carbonbrief.org/highlights-the-net-zero-climate-change-conference-oxford.
- 97 Stiglitz, 2019. If capitalism is broken, maybe it's fixable.
- 98 Dinkelman, T., 2011. The effects of rural electrification on employment: new evidence from South Africa. *American Economic Review*, 101(7). 3078–3108; Kassem, D., 2018. *Does Electrification Cause Indus- trial Development? Grid Expansion and Firm Turnover in Indonesia*. Job Market Paper. Department of Economics and STIRCED, London School of Economics, London.
- 99 Climate Policy Initiative. 2019. The Global Landscape of Climate Finance 2019.
- 100 IPCC, 2018. Special Report on Global Warming of 1.5°C (SR15). Intergovernmental Panel on Climate Change, Cambridge.
- 101 UNFCCC, 2016. The Paris Agreement. United Nations Framework Convention on Climate Change. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement; La Rovere, E., Hourcade, J.-C., Priyadarshi, S., Espagne, E. and Perrissin-Fabert, B., 2017. Social Value of Mitigation Activities and Forms of Carbon Pricing. CIRED, Paris; High-Level Commission on Carbon Pricing, 2018. Report of the High Level Commission on Carbon Pricing. Available at: https://www.carbonpricingleadership.org/report-of-the-highlevel-commission-on-carbon-prices.
- Tong, D., Zhang, Q., Zheng, Y., Caldeira, K., Shearer, C., Hong, C., Qin, Y. and Davis, S.J., 2018. Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target. *Nature*. doi: 10.1038/s41586-019-1364-3
- 103 International Energy Agency, 2016. Available at: https://www.iea.org/countries/Ghana.
- Worrall, L., Whitely, S. and Scott, A., 2018. Reforming Africa's fossil fuel subsidies. *Bridge Africa* 7(3).
- World Bank 2016. South Africa Economic Update: Promoting Domestic Competition Between Firms Could Help Spur Growth, Reduce Poverty
- 106 Dwazu, M. and Janse Van Vuuren, A., 2019. Ghana has so much electricity that it is costing \$450 million per year. Available at: https://www.businesslive.co.za/bd/world/africa/2019-11-10-ghana-has-so-much-electricity-that-it-is-costing-450m-a-year/.
- 107 Eberhard, A. 2019. Presentation at the University of Cape Town's Office of the Vice-Chancellor Lunchtime Lecture, 13 November.

- The Energy Commission of Ghana, 2016 http://energycom.gov.gh/files/Energy%20Commission%20-%202016Energy%20Outlook%20for%20Ghana_final.pdf.
- Hallegatte, S., Rentschler, J. and Rozenberg, J., 2019. Lifelines: the resilient infrastructure opportunity. *Sustainable Infrastructure*. Doi: https://doi.org/10.1177 /00220345740530061001.
- 110 Villarroel Walker, R., Beck, M.B., Hall, J.W., Dawson, R.J. and Heidrich, O., 2014. The energy-water-food nexus: strategic analysis of technologies for transforming the urban metabolism. *J Environ Manage*, 141. 104–115; Thomson, G. and Newman, P., 2016. Geoengineering in the anthropocene through regenerative urbanism. Geosciences, 6. 46. doi: 10.3390/geosciences6040046
- ¹¹¹ Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- Douti, N. B., Abanyie, S. K., and Ampofo, S. 2017. Solid Waste Management Challenges in Urban Areas of Ghana: A Case Study of Bawku Municipality. 2017, 494–513. doi:10.4236/ijg.2017.84026.
- H3 Kyere, R., Addaney, M. and Akudugu, J.A., 2019. Decentralization and solid waste management in urbanizing Ghana: moving beyond the status quo. Available at: https://www.intechopen.com/books/municipal-solid-waste-management.
- ¹¹⁴ Appiah, J. K., Berko-Boateng, V. N., and Tagbor, T. A. 2017. Use of waste plastic materials for road construction in Ghana. Case Stud. Constr. Mater. 6, 1–7. doi:10.1016/j.cscm.2016.11.001.
- ¹¹⁵ Adu-Boahen, K., Atampugre, G., Antwi, K.B., Osman, A., Osei, K., Mensah, E. and Adu-Boahen, A., 2014. Waste management practices in Ghana: challenges and prospect, Jukwa Central Region. *International Journal of Development and Sustainability*, 3(3). 530–546.
- ¹¹⁶ MLGRD, 2010. *National Environmental Sanitation Strategy and Action Plan (NESSAP)*. Accra, Ministry of Local Government and Rural Development.
- moE, 2019. Renewable Energy Masterplan; ESI Africa, 2019. Ghana inks \$5.7m deal to build a 400kW waste-energy plant. Available at: https://www.esi-africa.com/industry-sectors/renewable-energy/ghana-inks-5-7m-deal-to-build-a-400kw-waste-energy-plant/.
- ¹¹⁸ Addaney, M. and Oppong, R.A., 2015. Critical issues of municipal solid waste management in Ghana. *Journal of Energy and Natural Resources*, 2(1), 30–36.
- 119 Cities Alliance, 2015. *Ghana: Urban Governance and Services*; Ayee, J., 2019. Three decades of decentralized local governance in Ghana. Where are we from? Where are we now? What more needs to be done? IDEG Policy Brief, LGR/002/19; Shand, 2019. *The Urban Finance Landscape in Ghana*.
- 120 World Bank, 2015. Rising Through Cities in Ghana.
- 121 Shand, 2019. The Urban Finance Landscape in Ghana.

- 122 Danquah, M. and Osei-Assibey, E., 2018. The extent and determinants of tax gap in the informal sector: evidence from Ghana. *Journal of International Development*, 30. 992–1005.
- 123 Ministry of Finance, 2019. Budget Statement and Economic Policy.
- ¹²⁴ Ministry of Finance, 2019. Budget Statement and Economic Policy.
- 125 Coulibaly, B.S., Gandhi, D. and Senbet, L.W., 2019. Is sub-Saharan Africa facing another systemic sovereign debt crisis? Available at: https://www.brookings.edu/research/is-sub-saharan-africa-facing-another-systemic-sovereign-debt-crisis/.
- 126 World Bank, 2015. Rising Through Cities in Ghana.
- 127 Ministry of Finance, 2019. Budget Statement and Economic Policy.
- 128 OECD, 2018. Revenue and statistics Africa Ghana. Organisation for Economic Co-operation and Development, Paris. Available at: http://www.oecd.org/countries/ghana/revenue-statistics-africa-ghana.pdf.
- ¹²⁹ IFS, 2017. Mobilising adequate domestic revenue to support Ghana's development. Fiscal Alert Briefing 8. Institute of Fiscal Studies, Accra.
- 130 Prichard et al. 2019. Innovations in Tax Compliance. Policy Research Working Paper 9032. October, World Bank.
- 131 Smit, W. and Pieterse, E., 2014. Decentralisation and institutional reconfiguration in urban Africa. In Africa's urban revolution: Policy pressures. S. Parnell and E. Pieterse (eds). Zed Books, London.
- 132 Lopes et al., 2017. Macroeconomic Policy Framework.
- $_{133}$ French, 2013. How Africa's new urban centers are shifting its old colonial boundaries.
- Danquah and Osei-Assibey, 2018. The extent and determinants of tax gap.
- 135 Shand, 2019. The Urban Finance Landscape in Ghana.
- 136 Smolka M, 2013. Implementing Value Capture in Latin America. Policies and Tools for Urban Development. Lincoln Institute of Land Policy. Policy Focus Report. Cambridge, MA: Lincoln Institute of Land Policy. Available at: www.lincolninst.edu/pubs/2244_ Implementing-Value-Capture-in-Latin-America.
- 137 Dinkelman, 2011. The effects of rural electrification on employment; Kassem, 2018. Does Electrification Cause Industrial Development?
- 138 Kumi, E., 2017. The Electricity Situation in Ghana: Challenges and Opportunities. Policy Paper. Center for Global Development, Washington DC.

- 139 Schreiber, L., 2018. Broadening the base: improving tax administration in Indonesia, 2006-2016. Innovations for Successful Societies. Princeton University, Princeton, NJ.
- 140 Fjeldstad, O.-H., Ali, M. and Goodfellow, T., 2017. Taxing the Urban Boom: Property Taxation in Africa. Insight 1. Chr. Michelsen Institute, Bergen.
- 141 Prichard, W. and van den Boogaard, V., 2017. Norms, power and the socially embedded realities of market taxation in Northern Ghana. *African Studies Review*, 60(1). 171–194; Bawumia, M., 2019. Ghana pushes to eliminate paper from most services.
- 142 World Bank, 2015. Rising Through Cities in Ghana.
- Jewell, J., and Cherp, A. 2019. On the political feasibility of climate change mitigation pathways: Is it too late to keep warming below 1.5C? WIREs Climate Change., 1–12. doi:10.1002/wcc.621.
- ¹⁴⁴ Ministry of Trade and Industry, 2019. The 10 Point Agenda. Available at: http://www.moti.gov.gh/10pointagenda.php.
- Las Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- ¹⁴⁶ Adapted from Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- Yeboah, I., Codjoe, S. and Maingi, J., 2013. Producing an urban system for the spatial development of Ghana: lessons for sub-Saharan Africa. *African Geographical Review*, 32(2). 140–156.
- ¹⁴⁸ Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- ¹⁴⁹ Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- 150 Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- 151 Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.
- 152 AfDB et al., 2016. Sustainable Cities and Structural Transformation.
- 153 Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- ¹⁵⁴ Asunka, J., Brierly, S., Golden, M., Kramon, E. and Ofusu, G., 2017. Electoral fraud or violence: the effects of observers on party manipulation strategies. *British Journal of Political Sciences*, 49(1). 129–151; Paller, 2019. Democracy in Ghana.
- 155 Cities Alliance, 2015. Ghana: Urban Governance and Services.
- 156 Cloete et al., 2019. The Macro-Economic Impact of Two Different Industrial Development Pathways.

- UNDP, 2019. Five Plans for Carbon Neutrality. United Nations Development Programme, New York. Available at: https://medium.com/@UNDP/five-plans-for-carbon-neutrality-f61391ce2228.
- Table 158 Davis, M., 2006. *Planet of the Slums*. Verso, London; Almeida, T., 2012. Neoliberal policy and the growth of slums. The Prospect Journal of International Affairs at UCSA, 4(5); Shand, 2019. The Urban Finance Landscape in Ghana.
- 159 Vuylsteke, 2015. 2015 Ibrahim Index of African Governance.
- 160 UN-Habitat, 2016. From Habitat II to Habitat III: twenty years of urban development. United Nations Human Settlement Programme, Nairobi. Available at: http://wcr.unhabitat.org/wp-content/uploads/2016/05/WCR.pdf.
- 161 Shand, 2019. The Urban Finance Landscape in Ghana.
- ₁₆₂ Acquah, I., 1958. Accra Survey. London University Press, London.
- 163 Gocking, R., 2005. *The History of Ghana*. Greenwood Press, Westport CT.

- Mensah, 2015. The policy and practice of local economic development in Ghana; Paller, 2019. *Democracy in Ghana*.
- 165 Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- 166 Owusu, 2015. Decentralized development planning; Inkoom, 2018. *National Urban Policy Gap Analysis*; Crentsil and Owusu, 2018. Accra's decongestion policy.
- 167 Inkoom et al., 2019. Half a Decade of Implementation of Ghana's Urban Policy.
- 168 Parnell, S. and Pieterse, E., 2014. *Africa's urban revolution: policy pressures.* Zed Books, London; Grant, R., 2015. Sustainable African urban futures: stocktaking and critical reflection on proposed urban projects. American Behavioural Scientist, 59(3). DOI: 10.1177/0002764214550301; AfDB et al., 2016. *Sustainable Cities and Structural Transformation*.







Coalition for Urban TransitionsA New Climate Economy Special Initiative www.coalitionforurbantransitions.org