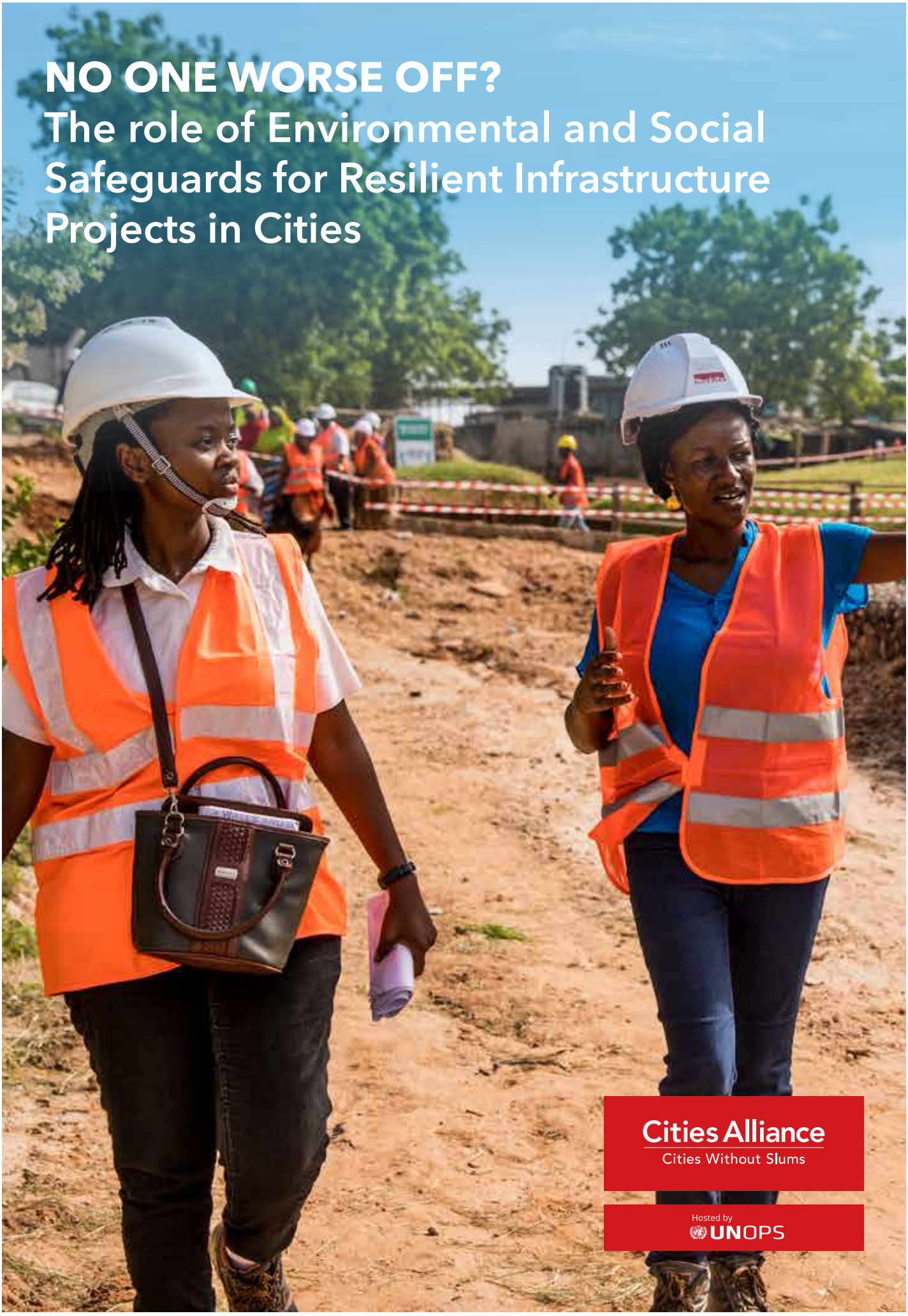
NO ONE WORSE OFF?
The role of Environmental and Social Safeguards for Resilient Infrastructure Projects in Cities



Cities Alliance
Cities Without Slums

Hosted by
UNOPS

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Foreword

Cities around the world are the main drivers of trade and local development. Consequently, the population growth pattern of cities is significant and vigorous; in the case of sub-Saharan Africa, as the world's fastest-growing urbanizing region, the urban population is projected to double in the next 25 years, with most of the growth occurring through informal settlements (World Bank, 2017). With this continuing trend, adequate infrastructure to respond to urbanisation needs is key; the global investment demand today for urban infrastructure is around 5 trillion USD annually (World Bank, 2019). As the impacts of a changing climate are felt stronger in cities, the ways in which major infrastructure in urban areas are planned need to change: Cities need resilient environmental, social, and economic systems that can withstand anticipated shocks and stresses, particularly when experienced through the eyes of the urban poor, who already begin to bear the burden of a changing climate. In order to reach our global commitments, laid down in the Agenda 2030, the Paris Agreement and the New Urban Agenda, any future infrastructure investment has to be planned, sustainable, climate resilient and capable of reaching climate neutrality by 2050. With this evidence, there is a need to review existing practices, as well as assess challenges and reforms to safeguard such investments.

Safeguards are internationally recognised mitigation measures designed to significantly reduce or avoid negative environmental and social impacts caused by development projects. The approach of applying a "do-no-harm principle" is well-established and has become globally accepted best practice for the application of safeguards[1]. Common cross-cutting issues include human rights, gender equity, indigenous people, involuntary resettlement and conservation of biodiversity. However, most safeguard practices fail to account for and address two major points: adequate accounting for climate-induced trends and protection of those vulnerable citizens living in informal housing in precarious locations with little or no access to basic services. In order to identify gaps and shortcomings, a review of the existing safeguard landscape was conducted, and pathways outlined on how climate-induced risks for infrastructure investments can be addressed.

This publication argues that the *national* environmental and social impact assessment laws and regulations regarding climate change and informality are often insufficient. These shortcomings derive from a variety of reasons, such as the absence of regulations on in-depth climate change risk and social impact assessments, a lack of stakeholder engagement and studies on informal settlements, as well as inadequate levels of social and climate change monitoring and auditing. Because existing international safeguards often depend on effective national rules, the publication calls for a greater understanding of the relationship between safeguards and informality, adaptation, and resilience in future infrastructure projects and should initiate a broader discussion on capacity needs and proper safeguard implementation on the ground.

Facilitated by the Cities Alliance Secretariat, this review was made possible thanks to the contribution of two Cities Alliance members: the Swiss State Secretariat for Economic Affairs (SECO) and the German Federal Ministry for Economic Cooperation and Development (BMZ). It will provide a key input for future operations and policy dialogues of the Cities Alliance Partnership and illustrate that environmental and social impact assessments can help address informality in cities, as well as increase greater resilience of entire cities to the various impacts of climate change.

1 - Safeguards aim to identify, prevent and mitigate negative, unintended consequences that may arise from a given intervention.

Executive Summary

Sub-Saharan African cities are growing rapidly, both because of population growth and by people immigrating from rural areas. Lacking access to land or title within the city proper, urban poor live in undeveloped sites, which exist in places considered **inappropriate for formal urban neighbourhoods**, as they are located on steep slopes, in wetlands, on river banks, etc. Informal settlements and the economies within them are subject **to heightened climate risk.**

Many cities deal with this new reality by beginning **ambitious infrastructure programmes**, with funding from Development Finance Institutions (DFIs) such as the World Bank, the African Development Bank, etc. However, plans that would assist existing formal areas, threaten the newer, often informal settlements and businesses **with social, economic and health implications.**

Sub-Saharan Africa legislation requires a complete **assessment of environmental and social impacts** and environmental authorisation is mandatory before any large capital project proceeds. The aim is to provide information on the various impacts of a project to ensure that **environmental, social and climate change risks are within acceptable limits and aligned with the DFI's core values** and policy statements.

The objective of this study is to determine whether the safeguards in place, work effectively and are consistent in the context of the urban poor, infrastructure development and climate change.

The paper reaches the conclusion that in theory, the national legal frameworks should ensure that the effects of climate change and the impacts of infrastructure development on vulnerable people living in informal settlements, should be identified and evaluated, and adequate mitigation measures should be put in place to compensate for such impacts. **However, several common weaknesses exist in the *application* of these safeguards**. In terms of **national legislation**, application of environmental laws and regulations is limited in effectiveness. There are some **weaknesses inherent in the approach, application and practice of existing safeguards** due to limited institutional capacity, inadequate financial resources and ineffective application of legal instruments. Thus institutional and legal strengthening is required to ensure that national environmental and social safeguards are more robust.

A similar conclusion can be reached regarding the international DFIs. In theory, the environmental and social safeguards systems in place should be adequate to address issues of urban development, informality and climate change, but several shortcomings have been identified in practice. These weaknesses relate to the late involvement of the DFIs in the ESIA process, lack of critical review of ESIA reports, questions over procurement, lack of transparency over budget allocations for environmental and social mitigation plans, inadequate auditing of expenditure on environmental and social management, and deficiencies in implementation monitoring and auditing.

The paper concludes that environmental and social impact assessment is insufficient when multiple developments occur concurrently within the same metropolitan area and strongly recommends greater use of **Strategic Environmental Assessments**. With national governments often being unable to fund such studies, DFIs need to support more governments to undertake Strategic Environmental Assessments for large infrastructure development programmes within urban areas in parallel with overall city planning.

List of Acronyms

AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
AVSI	Association of Volunteers in International Service
CDB	China Development Bank
DAC	Development Assistance Committee (or the OECD)
DBSA	Development Bank of Southern Africa
DFI	Development Finance Institution
DIDR	Development-induced Displacement and Resettlement
E&S	Environmental and Social
ESAP	Environmental and Social Assessment Procedures (AfDB)
ESMF	Environmental and Social Management Framework (WB)
ESMP	Environmental and Social Management Plan
EU	European Union
EXIM	Export-Import
GHG	Greenhouse Gas
GKMA	Greater Kampala Metropolitan Area
GRM	Grievance Redress Mechanism
HIA	Health Impact Assessment
HIV	Human Immuno-deficiency Virus
IAIA	International Association for Impact Assessment
IFC	International Finance Corporation
JICA	Japanese International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
KJE	Kampala-Jinja Expressway
KSB	Kampala Southern Bypass
NAPA	National Adaptation Plan of Action
NOWO	No One Worse Off
OECD	Organisation for Economic Cooperation and Development
RAP	Resettlement Action Plan
SADC	Southern African Development Community
SDG	Sustainable Development Goal
SIA	Social Impact Assessment
SSA	Sub-Saharan Africa
TB	Tuberculosis
UNRA	Uganda National Roads Agency
WB	World Bank
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

Glossary of Terms

Alternatives Assessment: The consideration of potential alternatives in an environmental and social impact assessment is one of the most critical elements when determining the scope of the environmental and social impact assessment. Consideration of alternatives provides an opportunity for an objective, scientific evaluation of all the environmental, social, technical and economic consequences of different project options (Department of Environmental Affairs and Tourism, 2004).

Baseline Data: Data that describe issues and conditions at the inception of the environmental and social impact assessment. Serves as the starting point for measuring impacts, performance, etc., and is an important reference for evaluation (Organisation for Economic Cooperation and Development (OECD), 2006).

Climate Change Impact Assessment: The identification and quantification of the expected impacts of climate change on a project and an analysis of its resilience to such change, based on a range of scientific climate scenarios for a given region or country. It also aims to identify and quantify the impact of a project on climate change in terms of its potential greenhouse gas emissions.

Cumulative Impacts: Incremental impact of an action when added to other past, present or reasonably foreseeable actions regardless of what agency or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time (OECD, 2006).

Economic Displacement: Loss of land, assets, access to assets, income sources, or means of livelihoods (Asian Development Bank, 2009).

Environment: The physical, biological, archaeological, aesthetic, cultural, economic, institutional, human health and social aspects of a person's surroundings.

Direct Impact: The effect of an activity or situation giving direct cause to one or more components of the receiving environment.

Environmental and Social Impact Assessment: A process, applied mainly at project level, to improve decision-making and to ensure that development options under consideration are environmentally and socially sound and sustainable. Environmental and social impact assessment identifies, predicts and evaluates foreseeable impacts, both beneficial and adverse, of public and private development activities, alternatives and mitigating measures, and aims to eliminate or minimise negative impacts and optimise positive impacts (OECD, 2006).

Environmental and Social Management Plan (ESMP): The ESMP is a detailed action plan to implement the mitigation measures identified in the environmental and social impact assessment. For each impact identified, it should specify: the mitigation measure required to avoid, reduce, minimise or control an impact; the goals/targets of objectives to be met; the key performance indicators; the person or institution responsible for implementing the mitigation measure; the time-frame – i.e., over what period must the mitigation measure be applied; and the budget.

Environmental and Social Safeguard Systems: The project appraisal systems in place at Development Finance Institutions that analyse environmental and social risks prior to loan approval.

Environmental Compliance Auditing: The formal process of documenting compliance of a project with the terms, conditions and requirements of legal permits, loan agreements, other legally recognised documents, safeguards and policies, using a number of verifications means, such as observations, work process inspections, documentation and interviews.

Environmental Impacts: Any change, potential or actual, direct or indirect, positive or negative, to the physical, natural, social, cultural and economic environment resulting from the business activity or proposal.

Environmental Monitoring: A process of measuring, observing, surveying or otherwise scientifically quantifying changes to the bio-physical and socio-

economic environment in order to: a) determine the baseline conditions prior to a development; and b) monitor changes to the baseline conditions, which may be caused by project activities.

Gender: Refers to socially constructed roles, responsibilities and opportunities associated with men and women, as well as the power structures that govern the relationships between them <www.undp.org>.

Gender Impact Assessment: The estimation of the different effects (positive, negative or neutral) of any policy or activity implemented to specific items in terms of gender equality (European Commission, 2009).

Health Impact Assessment (HIA): A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects (WHO, Gothenburg Consensus Paper, 1999 amended 2006).

Health Risk: A health risk is the likelihood, or probability, that a particular set of health determinants will cause harm to an individual when exposed to that hazard for a given period of time. Therefore, the health risk posed by a severe hazard for a short duration could be equal to the health risk posed by a mild hazard over a long period of time, depending on the substance of exposure (ICMM, 2010).

Informality: Represents a continuum, ranging from informal to formal settlements and businesses that co-exist with, and underpin formal practices, laws and institutions within society.

Involuntary Resettlement: Refers to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets) that leads to loss of income sources or other means of livelihood as a result of project-related land acquisition and/or restrictions on land use (IFC, 2012).

Mitigation Hierarchy: The process of reducing the impact of a project by adopting a step-wise set of principles: 1) avoid the impact through design and planning; 2) if the impact cannot be avoided, adopt measures to minimise and control the effects of the impact on the environment; 3) if impacts are inevitable, develop a programme to rectify/restore/rehabilitate the affected area; and 4) provide compensation and/or biodiversity offsets (if measures 1-3 are insufficient).

Resettlement Action Plan: A document in which a project sponsor or other responsible entity specifies the procedures that it will follow and the actions that it will take to mitigate adverse effects, compensate losses, and provide development benefits to persons and communities affected by an investment project <www.ifc.org>.

Scoping: The process of determining the spatial and temporal boundaries, project alternatives and key issues to be addressed in the environmental and social impact assessment (DEAT, 2004). The key issues are identified through public consultation and stakeholder engagement, desktop studies and field visits.

Screening: A process to determine whether or not a development proposal requires an environmental and social impact assessment and if so, what type and level of assessment is appropriate.

Sensitivity: The degree to which a system is vulnerable to change, either adversely or beneficially, as a result of the impact of the project or from climate related stimuli.

Social: Encompasses the following: demographic structure (age, gender, population growth), settlement and migration patterns, education and skills, local economy, employment (formal and informal sectors), livelihoods and livelihood options, use of ecosystem services, land use and land tenure (property rights), community health and well-being (including health status and drivers of disease), gender roles and equality, culture (shared beliefs, customs, values, language and religion), cultural heritage (physical and spiritual), local governance structures and decision-making, community services (schools, tertiary institutions, health care, water and sanitation, power supply, communications), indigenous knowledge (adopted from Vanclay, 2003).

Social Impact Assessment (SIA): Includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, plans, programmes and projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about

a more sustainable and equitable biophysical and human environment (Vanclay, et al., 2015).

Stakeholders: Those who may be interested in, potentially affected by, or influence the implementation of a policy, plan, programme or project. Stakeholder groups usually include: (i) national environmental management authorities, (ii) other relevant government ministries, departments and agencies, (iii) development finance institutions (where applicable), (iv) NGOs, and (v) civil society (interested and affected parties).

Strategic Environmental Assessment (SEA): A range of analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter-linkages with economic and social considerations (OECD, 2006).

Strategic Environmental and Social Management Plan (SESMP): The SESMP is a detailed action plan to implement the mitigation measures identified in the SEA. For each impact identified, it should specify: the mitigation measure required to avoid, reduce, minimize or control an impact; the goals/targets of objectives to be met; the key performance indicators; the person or institution responsible for implementing the mitigation measure; the time-frame; and the budget.

Vulnerable Group: The disadvantaged or vulnerable status may stem from an individual's or group's race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status… as well as factors such as gender, age, ethnicity, culture, literacy, sickness, physical or mental disability, poverty or economic disadvantage, and dependence on unique natural resources (IFC, 2012).

Vulnerability: Refers to those within a project's area of influence who are particularly marginalized or disadvantaged and who might thus be more likely than others to experience adverse impacts from a project. Vulnerability can be determined by identifying the likelihood that an individual or a group faces more difficult conditions as the result of the implementation of a project (AfDB, 2015 Guidance Note 2.2).

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1. Introduction

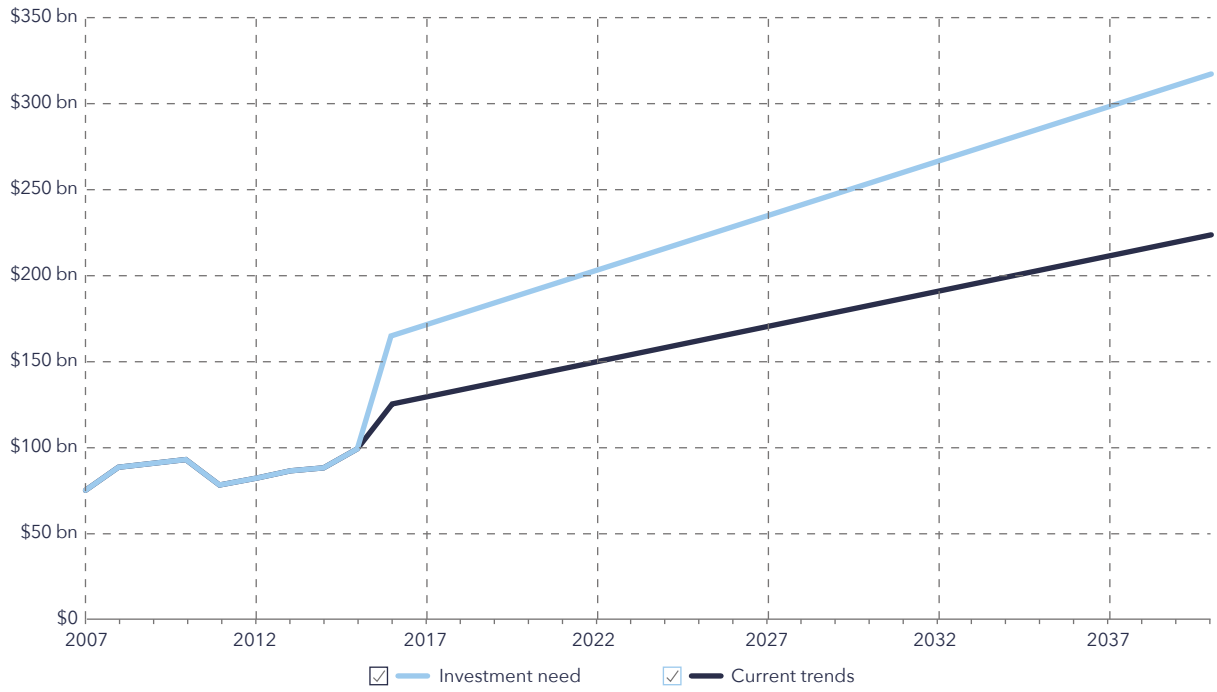
The primary objective of this study is to expand and improve the knowledge surrounding the relationships between environmental and social safeguard systems and climate change. These are examined through the context of informal urban settlements and the burgeoning informal economy.

Cities in Sub-Saharan Africa are growing at a rapid rate, due to internal growth and in-migration from rural areas. Without access to land or title within the formal city area, the urban poor build makeshift shacks on undeveloped sites, known as informal settlements, which have no formal streets or service delivery and are usually located in areas unsuitable for formal urban development: e.g., on steep slopes, in wetlands and on riverbanks. These settlements and their informal economies are, thus, more prone to climate change. These challenges are compounded by the development of large infrastructure projects through or adjacent to these informal settlements.

Most large infrastructure projects in Sub-Saharan Africa (SSA) are funded by international development finance institutions (DFIs), many of which have environmental and social safeguards in place. The aim of these safeguards is to protect the public, especially the poor, vulnerable and disadvantaged from unequal distribution of costs and benefits, to promote equality, health and well-being of citizens, to protect the environment from damage and to encourage sustainable development. Therefore, the funding of infrastructure in the urban environment must be planned and implemented in a sustainable manner. Since the focus of this study is on African cities, this review focussed on those DFIs that are active in funding public-sector infrastructure development in Africa, notably the World Bank (WB), African Development Bank (AfDB), Development Bank of Southern Africa (DBSA), Japanese International Cooperation Agency (JICA), Kreditanstalt für Wiederaufbau (KfW), the China Development Bank (CDB) and China's Export-Import Bank (China EXIM Bank).

Figure 1

Infrastructure Investment at Current Trends and Needs



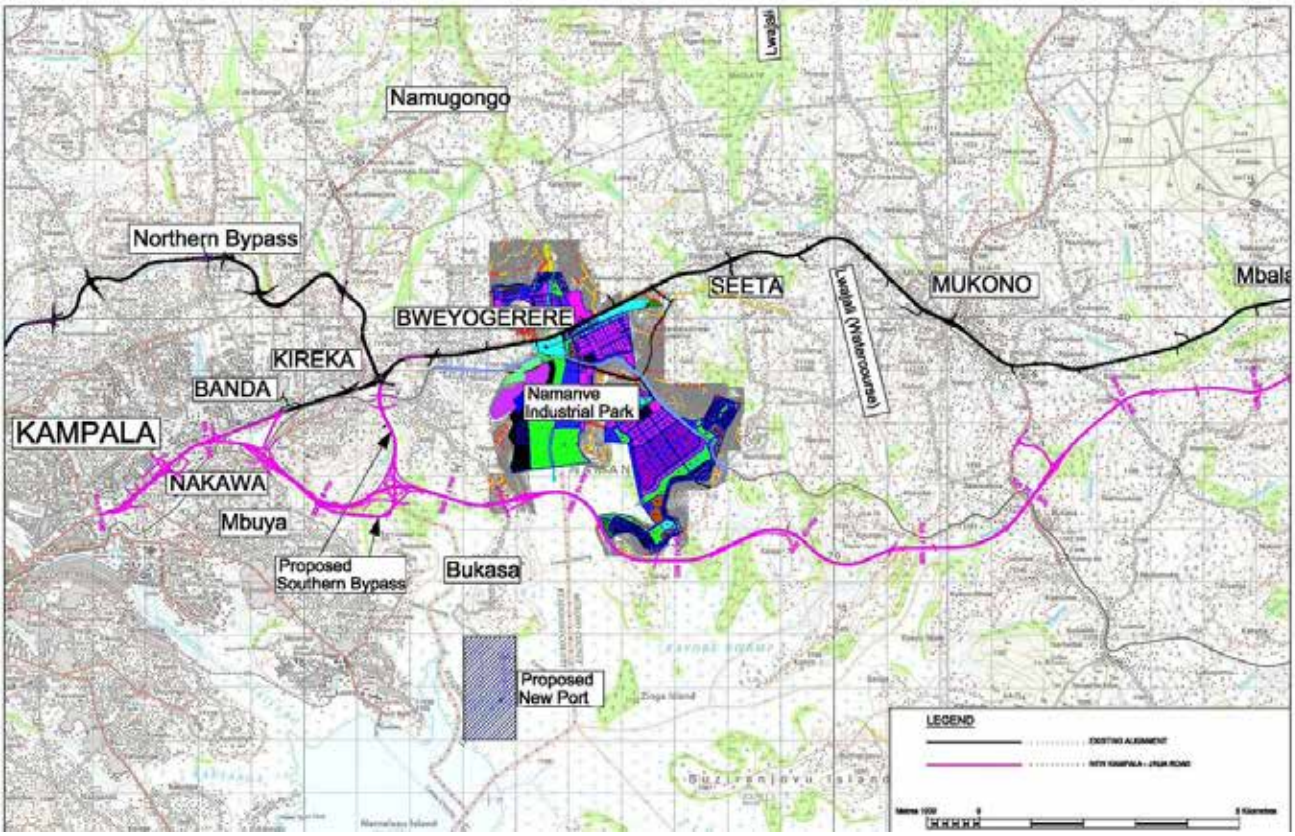
Source: Global Infrastructure Outlook, 2020.

The central question is whether the safeguards in place at each of these DFIs work effectively in the context of the urban poor, infrastructure development and climate change. Are they consistent in approach, adaptable, feasible and practical in the context of informality?

This paper first presents an overview of the current situation relating to climate change, urban informality and infrastructure development (Chapter 2), followed by an analysis of national environmental and social impact assessment legislation and international safeguard policies and procedures to obtain an overview of whether or not such safeguards provide for adequate consideration of climate change in large urban infrastructure projects in the context of informality (Chapter 3). The findings are illustrated with key lessons learnt from the environmental and social impact assessment report[2] for the Kampala-Jinja Expressway (KJE) and Kampala Southern Bypass (KSB) Project in the Greater Kampala Metropolitan Area (GKMA), Uganda.[3] The full case study review may be found in Appendix B. The paper concludes with key messages and recommendations on how Cities Alliance can promote more effective use of the safeguards available to ensure sustainable cities for the future (Chapters 4 and 5).

2 - The so-called 'reference' ESIA was compiled by Earth Systems and Atacama Consulting in 2018. According to UNRA officials, this document is a reference document that will form part of the tender documents for the Design, Build, Operate contractor. The contractor will be required to revise and update the reference ESIA report during the final design stage.
3 - The KJE component of the project comprises 76 km of new, limited access expressway, linking the city of Jinja at the eastern border of Uganda with Kampala, thereby facilitating the movement of international freight from the port of Mombasa in Kenya to Uganda and other land-locked neighbouring countries such as Rwanda, Burundi, DRC and South Sudan. The 18 km KSB component of the road will form part of a greater ring road around Kampala (with the Kampala Northern Bypass) and will link the KJE with the Kampala-Entebbe Expressway. The project is being co-funded by the IFC and AfDB.

Map 1
Location of KJE/KSB Roads in Kampala in Relation to other Transportation Projects



Source: Uganda National Road Authority, 2012.

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2. Assessment: Climate Change, Informality and Urban Development

At the nexus of climate change, informality and urban development, lies a multiplicity of causes and corresponding impacts or effects, but also, opportunities for improvement. In this chapter, we examine some of the global and local driving forces shaping the growth and trajectory of African cities.

2.1 | Urban Development and Informality

Cities are centres of societal change, cultural development and economic prosperity, but they can also be a place of marginalisation, violence, poverty and inhumane living conditions (KfW, 2019b). It is estimated that, by 2050, more than two-thirds of the world's population (i.e., 6 billion people) will live in urban areas (ibid). The rapid rate of urbanisation is exemplified in Uganda, where the Greater Kampala Metropolitan Area (GKMA) has quadrupled in size since the 1980s. In the period 2002 – 2014, the population of GKMA grew at a rate of 3.9% per annum. There are numerous causes for this growth, which can be characterised as 'push' and 'pull' factors. Rural people are being 'pushed' to urban areas due to increasing competition for land, land shortages, sub-optimum subsistence plot sizes, stagnation in rural economies and the legacy of civil wars in northern Uganda and in neighbouring countries. The pressures on traditional rural areas, such as declining agricultural productivity, are amplified by the effects of climate change, with more frequent occurrences of droughts, catastrophic flooding, changing rainy seasons, dust storms, insect plagues and high winds driving people off the land and into cities.

Cities, however, are perceived to provide more exciting job prospects and prosperity, especially for the youth, compared to subsistence farming ('pull' factors). Cities are also thought to provide a safe haven from the exigencies of civil war, with families flocking to urban areas for greater protection, leaving the areas from which they departed worse off, exacerbating the economic disparities between cities and regions.

The in-migration of the rural poor and economic migrants to cities inevitably leads to the creation of informal settlements or slums, together with an associated informal economy. As of 2018, in Sub-Saharan Africa (SSA) more than 200 million people live in urban slums and informal settlements (UNSTATS 2019).

This number reflects the fact that many of those moving into urban areas cannot afford to purchase land on which to build a home, or to buy or rent a house, due to a failure of governance to plan for and manage rapid urban growth and provide affordable land and housing. Urban migrants have no option but to set up informal settlements, thus living and operating outside of the formal system of byelaws, regulations and taxes. Most, but not all, live on vacant local authority land that has been illegally occupied. This land is often on the margins of the urban area or in open space on river banks, floodplains and steep hillsides. The unplanned, haphazard nature of the development hampers the provision of basic services and infrastructure. Indeed, the residents of informal settlements may be politically and institutionally marginalised and therefore they are often overlooked in infrastructure planning (Tarr, 2020). Thus, they do not receive basic municipal services such as piped drinking water, sanitation systems, waste removal, roads, pavements, storm water drainage and power. This problem is exacerbated by weak, or lack of governance at local authority level, which results in a substantial deficit in spending on the basic services mentioned above.

Table 1

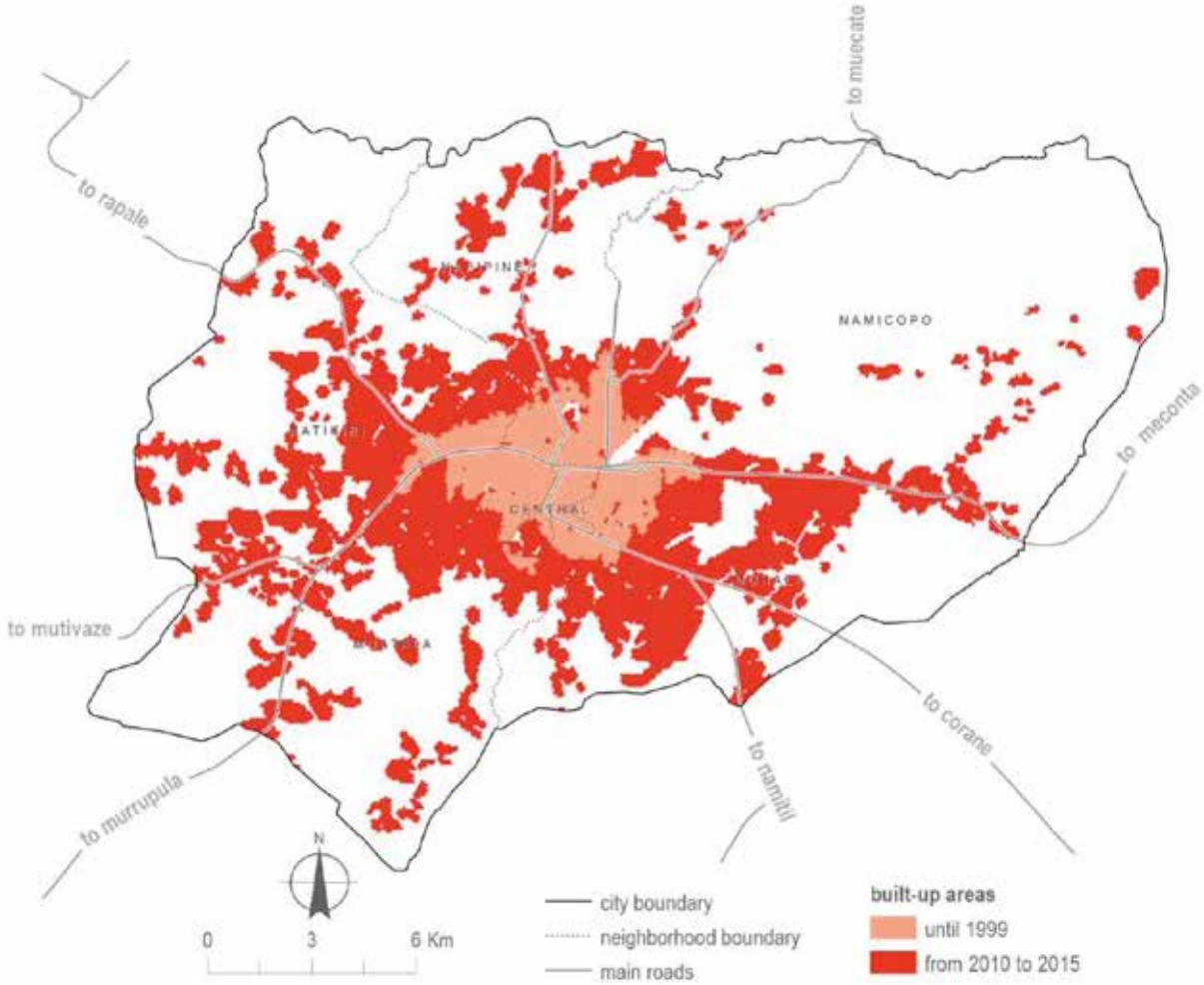
Urban Population Living in Slums (millions)

Region	2000	2014	2016	2018
World	803.126	897.651	1003.083	1033.546
Sub-Saharan Africa	131.176	202.042	228.936	237.840
Northern Africa & Western Africa	46.335	63.814	71.720	82.123
Central and Southern Asia	205.661	206.704	223.643	221.092
Eastern and South-Eastern Asia	317.123	349.409	364.684	368.898
Latin America and the Caribbean	115.148	104.652	112.602	109.946
Oceania (excluding Australia and New Zealand)	0.234	0.602	0.648	0.643
Australia and New Zealand	0.03	0.03	0.01	0.01
Europe and Northern America	0.764	0.833	0.842	1.022

Source: UN-Habitat, 2020.

Map 2

Unplanned Growth in Nampula, Mozambique



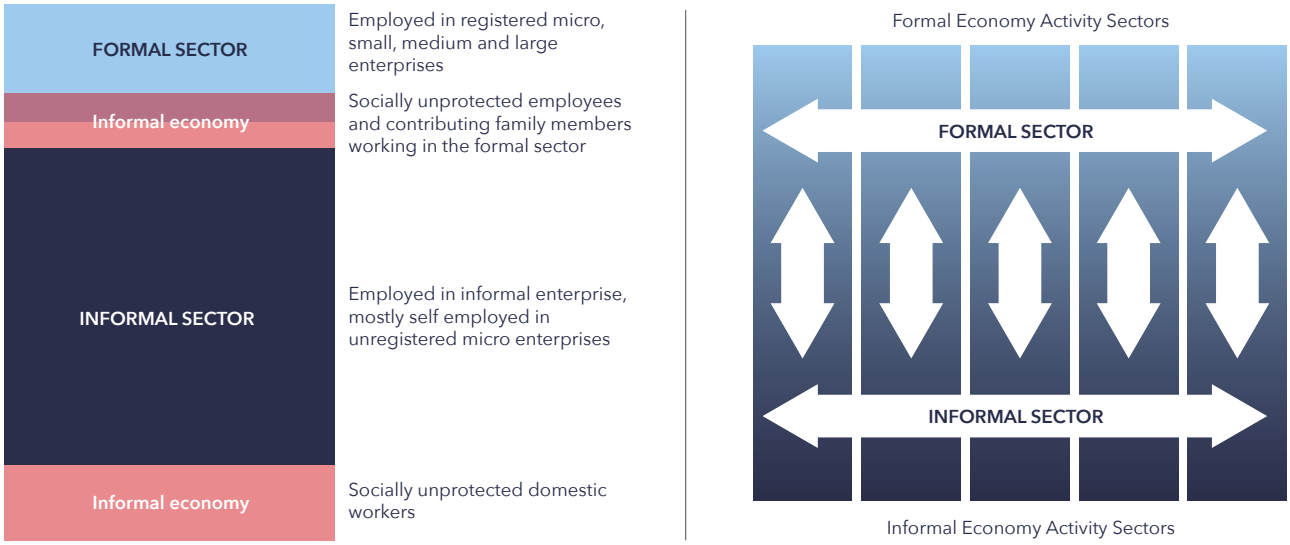
Source: Cities Alliance, 2017d.

Additional challenges facing local authorities, include: lack of funding; poor devolution of powers from central government; multiplicity of legal requirements (bureaucratic 'red tape'); overlapping mandates (within local government, and between them and regional/national governments); lack of technical and managerial capacity to procure, commission and run basic services; corruption; traditional approaches to the informal sector; political interference and ideology; and the inability to collect payments for services and taxes (Cities Alliance, 2017a).

Weak enforcement of the local authority's own bylaws and planning/zoning regulations allows the informal sector to thrive unhindered. Into the void created by the lack of local authority intervention come private enterprises, 'selling' groceries, hardware, furniture, illegal power connections, etc. The plethora of bureaucratic 'red tape', high business registration costs, restrictive labour laws and soaring taxes that burden the formal sector, are key drivers of the burgeoning informal sector, which largely escapes these constraints.

However, it is a mistake to continue with the notion that the urban economy is divided simply into the 'formal' and 'informal' sectors because this artificial division fails to recognise that there is a continuum between the two, known as the hybrid economy (Cities Alliance, 2017c). Often the distinction between the formal and informal business sectors is based on whether the business is registered and whether it pays taxes (Cities Alliance, 2017c). This rigid classification requires a change of traditional thinking, planning and governance to a more flexible and realistic regulatory and planning framework.

Figure 2
Two Concepts of the Informal Economy



Source: Cities Alliance, 2017c.

Instead of penalising informal businesses, governments should recognise that the hybrid economy needs to be strengthened, thereby promoting a form of urban growth that is increasingly socially inclusive and economically resilient. Much of the informal economy is driven by the need to survive, rather than by a strategic analysis of market forces. Thus, there are often more sellers than buyers, which drives down prices and reduces profits. Supporting the informal and hybrid economies to become more productive will ultimately result in increased employment and tax revenues. The traditional approach of channelling growth solely through the 'big business' formal sector fails, as the

benefits rarely trickle down to the informal economy – it merely creates a larger divide. One way to bridge the gap is to include the informal sector into formal sector value chains through the provision of goods and services. Doing so, however, requires targeted interventions, training and skills development (Cities Alliance, 2017c) (Box 1).

Box 1 | **Example of a Business Skills Development Programme**

The Cities Alliance KJE No One Worse off (NOWO) project being implemented by the AVSI Foundation, is empowering the most vulnerable households from Kampala's informal settlements in the KJE right-of-way to adapt to the reality of relocation resulting from the construction of the KJE. The 76-km highway is part of the northern trade corridor from Mombasa that is expected to boost trade between Uganda, Rwanda, Burundi, and Tanzania.

A year ago, Nusula Namutebi, 45, her husband, and five dependents were living on one meal a day in a small shack within the proposed right-of-way for the KJE. In May 2020, Nusula enrolled in relocation planning and business enterprise training to help boost her food business and turn around her fortunes. Previously, her weekly income stood at $19. Today, thanks to the skills acquired and confidence gained, Nusula scaled up her business selling sugarcane and matooke to include maize, and she now earns $57 a week. Now, her family has three meals a day. Because of support from the NOWO project, Nusula is better prepared to relocate and carry on her business (Cities Alliance, 2020).

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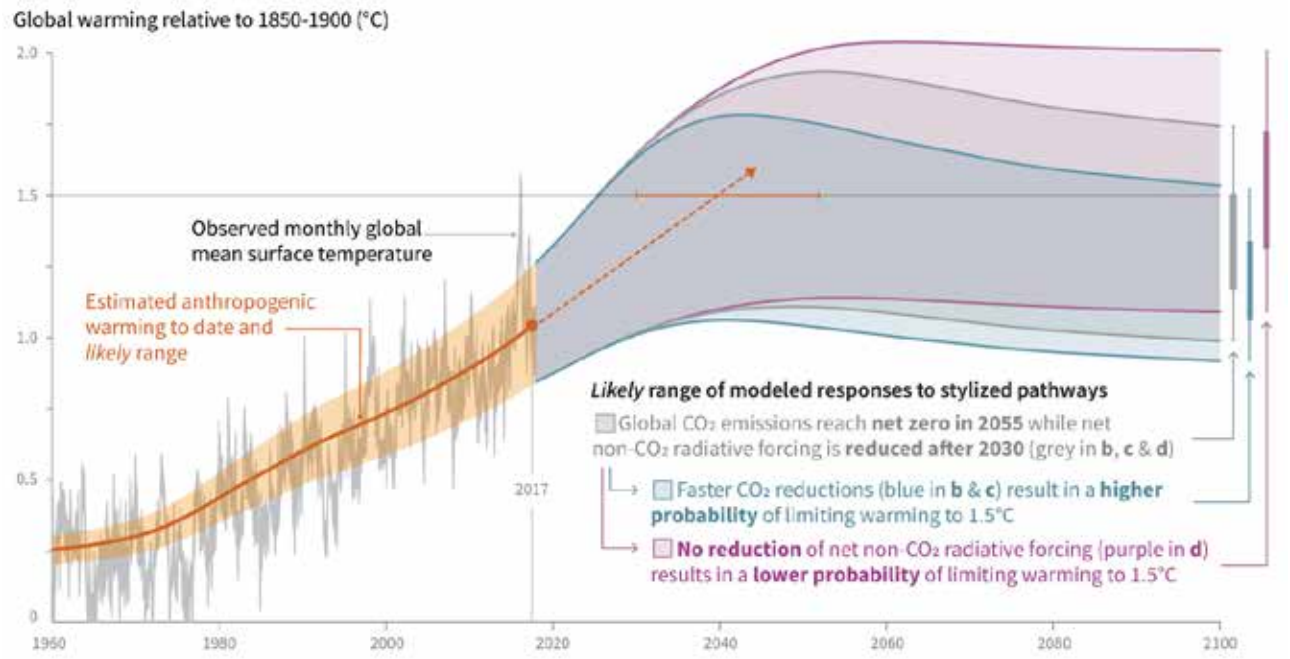
2.2 | **Urban Development and Climate Change**

The UNFCCC has calculated that the average global temperature will increase from pre-industrial levels by 1.5°C between 2030 and 2052 (the date depending on the effectiveness of global CO_2 emission reduction) (IPCC, 2018). The IPCC Special Report on Global Warming of 1.5°C is unequivocal: allowing global temperatures to rise above 1.5°C will disrupt basic social and economic activities around the world, with the most extreme consequences for countries in the Southern Hemisphere.

Figure 3

Observed and Projected Global Temperature Change Based on Different Emissions Scenarios (IPCC, 2018)



Source: IPCC, 2018.

Cities are the main man-made contributors to climate change, as well as being increasingly susceptible to the effects of a rapidly changing climate. Paradoxically, they can also contribute to the solution to reduce greenhouse gases because:

- They can concentrate opportunities to address many of the causes and impacts of climate change on a systemic level.
- City leaders (if empowered) can take actions faster than other levels of government can.
- They can more easily innovate scalable solutions than can other tiers of government (IPCC, 2018).

Cities are responsible for two-thirds of energy consumption and more than 70% of global CO_2 emissions (KfW, 2019a). Not only does this impact the global climate, it has a number of other significant local economic, health and social consequences magnified in the informal sector. One of the largest emitters of greenhouse gases (GHGs) is traffic, especially where there are high vehicle densities, congestion, slow travel times and old, poorly maintained vehicles and roads, as exemplified in Kampala (Box 2). These situations generate local air pollution, which causes significant health effects, particularly for those who live and work in close proximity to congested roads, factories and other sources of emissions.

Box 2 | **Traffic in Kampala**

In the 2014 population census, there were approximately 4 million people in the city of Kampala during the daytime, reducing to around 2 million at night, implying that some 2 million people commute in and out of the city daily, in addition to through traffic from the port of Mombasa in Kenya to inland destinations beyond Uganda. However, the road infrastructure has not kept pace with the growth in the number and type of vehicles. Traffic volumes on the existing Kampala to Jinja main road are growing at a rate of 3-6% per annum together with a corresponding growth of ribbon development in the form of roadside settlements and commerce, which further add to the congestion (Atacama Consulting, 2018).

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By their very nature as focal points of trade, most cities are often built in areas particularly sensitive to climate change, for example on rivers and coastlines (KfW, 2019c). Even those cities that might have originally been built in hazard–free areas, now exhibit increased vulnerability to weather-related risks, such as landslides and floods, as in-migration and poorly regulated development have caused slums to sprawl across steeper slopes and into valleys that are most at risk (KfW, 2019).

There is increased vulnerability of the poor to the effects of climate change because of number of other factors including health and social issues. HIV/AIDs, as well as other common co-morbidities such as TB and hepatitis, is still rife in many countries in SSA, with higher prevalence rates being found in the cities (Walmsley, 2017). Communicable, vector-borne and water-borne diseases are the inevitable outcome in areas where there are cramped living conditions, inadequate sanitation and waste removal services and a lack of stormwater control. (As Table 2 indicates, these conditions are all being aggravated by those climate change scenarios involving increased flooding and rainfall intensity.

However, the rate of urbanisation is creating opportunities for sustainable development, such as making the transition to the green economy and the use of technology to climate-proof cities against the effects of climate change (Table 2). Cities need to improve their resilience to climate change risks, such as by reducing greenhouse gases (GHGs) through the design or adaptation of more energy-efficient buildings; through the uptake of renewable energy; by adoption of low emission technologies; by promotion of efficient and well-regulated public transport systems and electric cars; through utilisation of better waste management; and in the promotion of green spaces and urban agriculture (KfW, 2019c; IPCC, 2018) (Table 2). However, scaling up climate action requires a serious effort by governments to implement policies and enhance access to innovation, technology and financing. Realising these enabling conditions without exacerbating economic, social and political challenges requires improved governance and much stronger institutional capacity at the local government level across the world (IPCC, 2018).

Table 2

Climate Change Impacts, Informal Settlements and Adaptation

Projected change	Examples of likely impacts	Implications for informal settlement residents	Possible adaptation measures
Increase in the number and intensity of heatwaves	· Rise in mortality and illness from heat stress · Extended range and activity of disease vectors (e.g., mosquitoes) causing malaria and dengue fever · Ocean warming and its impact on fish stocks	· High indoor temperatures due to shacks made from corrugated iron / plastic sheeting/ cardboard/ reeds (and often have poor ventilation) · Crowding in shacks exacerbates heat impacts	· Improved building design · Set up locally accessible health services · Avoid clearing of trees and promote planting of indigenous trees
More intense precipitation events and floods	· Increased floods and erosion, resulting in injury, loss of life, livestock, and property · Flooded areas often experience an influx of disease vectors such as mosquitoes · Diseases spreading and water contamination due to floods containing waste, including sewage	· Risk of flooding with poor quality housing less able to withstand flooding · Lack of risk-reducing infrastructure · Increased disease burden, including water-borne and vector-borne diseases	· Better planning and enforcement to prevent people from settling in flood-prone areas · Well-planned and resilient infrastructure designs · Improved flood protection · Safeguarding water supplies · Improve waste management to prevent clogging by litter · Improved early-warning systems to ensure adaptation and evacuation
Wind storms with higher wind speeds	· Damage to buildings, power and telephone lines and other urban infrastructure	· Wind speed can damage buildings, leaving people vulnerable or homeless · Informal utility services are likely to be damaged or cut · Increased risk of shack fires	· Improve construction and design of houses and infrastructure · Plant windbreaks - bushes and trees (preferably indigenous) · Improve access within informal settlements for emergency services
Increased drought	Decrease in: · Water quantity and quality · Crop yields · Livestock and crop production and nutrition content Increase in: · Risk of fire · Risk of pest outbreaks such as locusts · Food prices · Out-migration from rural areas and in-migration to cities · Ecosystem degradation and its effect on ecosystem services	· Increase in number of informal settlements · Informal settlement residents usually face more water constraints and are more vulnerable to food and water prices · Food shortages, possibly leading to increased cases of malnutrition	· Addressing socio-economic factors and poverty · Improve water infrastructure and affordability

Source: Tarr, 2020 and IPCC, 2018.

2.3 | **Urban Infrastructure, Climate Change and Informality**

The need for investment in urban infrastructure is a *sine qua non*. With the foreseen urban population growth and the demand for infrastructure growth alike, World Bank Outlook forecasts that global infrastructure investment needs to reach $94 trillion by 2040. For cities to thrive socially and economically, development of infrastructure is required to provide basic public services such as clean water, sanitation systems, stormwater management, power distribution, communications and public transport. The latter is a key factor for both economic growth and safe, social and climate-friendly development. It is essential for exchanging goods and services, connecting people, providing access to jobs and basic health care and education. Transportation infrastructure also forms the backbone for other utilities such as electricity and water distribution systems.

In order to realise the benefits of improved transportation infrastructure, there needs to be a greater understanding of how the informal and hybrid economies work, how goods and people move, and why and where the moves occur (Cities Alliance, 2017b). Existing roads usually dictate the urban form and can be used in city planning to determine how and where future urban development should take place. Transportation route designs need to factor in issues that typify a 21st century African city, such as accessibility for a range of modes of transport, green vehicles, road safety, bus/taxi ranks, waste management, stormwater management based on worst case climate change predictions, and the provision of markets (location, lighting, storage facilities, sanitation facilities, security and so on). This planning has to be done in consultation with the beneficiaries themselves with the correct legal basis and adequate funding, otherwise many of these schemes will fail (Box 3).

Box 3 | **Participatory Planning in Jinja, Uganda**

In 2007, the mayor of the town of Jinja adopted a City Development Strategy process with the support of municipal and political staff. This process required a participatory approach to planning, which:

- Encouraged municipalities to shift to a more decentralised and participatory planning process and
- Promoted a dialogue between the residents (of Jinja) and local government through adult workshops, school projects, etc.

Despite significant enthusiasm from the public, the initiative failed, due to:

- Lack of legal backing in relation to national and municipal legislation, which meant that the project could not receive central government funding.
- Local business participation was low.
- City plans were based only on a 5-year vision, which is too short. Plans need to be formulated around a 30-year time frame with 5-year action plans to ensure that the long-term vision is achieved.
- External funding ran out.
- Urban data sets were insufficient and inconsistent.
- There was a lack of understanding of the linkages between environmental issues, climate change and city planning amongst the stakeholders.

Source: Cities Alliance, 2016.

3.
Status and Application of Environmental and Social Safeguards

In this section, we will first analyse two of the most commonly used tools in national environmental safeguard systems: environmental and social impact assessment (environmental and social impact assessment)[4] and strategic environmental assessment (SEA) in terms of their strengths and weaknesses in addressing climate change and infrastructure-related impacts on informal communities. Then, we will examine the safeguards used by some of the international DFIs to determine whether the issues relating to informality, climate change and urban infrastructure development are adequately addressed, both in theory and in practice (section 3.2).

3.1 | National Environmental and Social Safeguard Systems

Almost every country in Africa has a dedicated body of law devoted to environmental and social impact assessment, with supporting regulations and guidelines, meaning that every large-scale construction project is required to have an approved environmental and social impact assessment report before construction can commence. This rule is also a fundamental requirement for DFIs (see s. 3.2). However, not all country environmental and social impact assessment systems are consistent in the *contents* of the law and regulations, and in the *application* of the legal requirements in practice. These inconsistencies are discussed briefly in the following sub-sections.

4 - For a basic description of ESIA, go to the International Association for Impact Assessment website on <https://iaia.org>.

National Environmental and Social Impact Assessment Policy and Law

Over the years, environmental and social impact assessment has been recognised as a forward-looking instrument that is able to proactively advise decision-makers on what might happen if a proposed action were implemented. Impacts are changes that are judged to have environmental, political, economic or social significance to society. Impacts may be positive or negative and may affect the biophysical environment, communities, human health and well-being, desired sustainability objectives, or a combination of these factors. The environmental and social impact assessment process has several well-defined steps as shown in Figure 4.

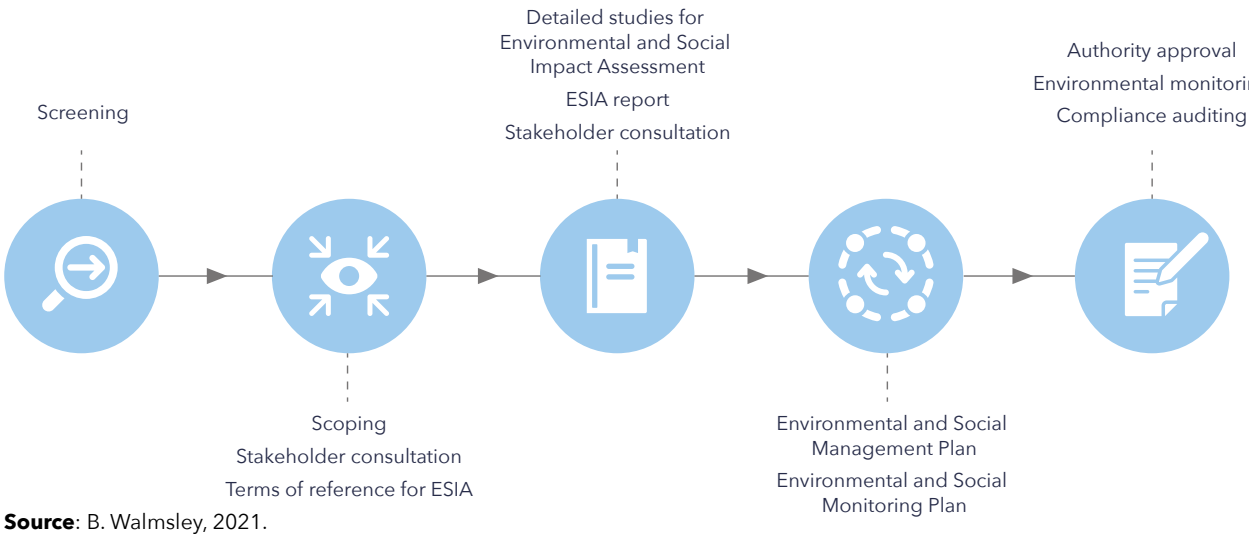
When used correctly, environmental and social impact assessment can help us design and implement better projects that will face up to important challenges such as climate change, biodiversity loss, a growing population, urban sprawl, conflicts over increasingly scarce resources, inequities and new technological opportunities. By critically examining development actions while they are still being conceptualised, environmental and social impact assessment can contribute to fostering a balanced and sustainable future and to shaping, and making better, the society that future generations will be living in <www.iaia.org>.

Environmental and social impact assessment has the capacity to enhance the positive effects of development, and avoid or minimise the adverse effects. Decision-making, which is informed by scientific, robust, objective environmental and social impact assessment reports on the likelihood and consequences of impacts occurring, should benefit all those communities that may be affected by the project. But do environmental and social impact assessments address climate change generally, and in the specific context of informality?

National Environmental and Social Impact Assessment and Climate Change

The levels of climate change vulnerability, readiness and preparation amongst the nations of SSA vary considerably. While all countries have ratified the United Nations Framework Convention on Climate Change (UNFCCC) and have made nationally determined commitments to the Paris Agreement,[5] only half (out of 26 country systems in SSA examined) have a national climate change policy in place. Fifteen countries have submitted their national adaptation

Figure 4
Key Steps in the Environmental and Social Impact Assessment Process



Source: B. Walmsley, 2021.

5 - The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change(UNFCCC) dealing with greenhouse gas emissions mitigation, adaptation and finance signed in 2015. The Agreement aims to respond to the global climate change threat by keeping global temperature rise this century well below 2 degrees Celsius, based on pre-Industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

plans of action in terms of the UNFCCC, and some countries, such as Eswatini, South Africa and Mozambique have developed numerous climate-related strategies, sector guidelines and reports and have mainstreamed climate change into all line ministries. **However, because most environmental and social impact assessment laws pre-date climate change policies and action plans, few countries require climate change to be addressed** (Walmsley and Husselman, 2020) (Box 4).

An examination of the environmental and social impact assessment guidelines in place in most countries in SSA reveals that there are few if any guidelines to assist those preparing and reviewing environmental and social impact assessments as to what a climate change assessment should look like. Thus, without an explicit requirement to assess the impact of climate change on a project and vice versa, it is not surprising that climate change does not feature highly in most environmental and social impact assessments, when they follow the country systems. This changes, however, if projects are wholly or partly funded by DFIs which require borrowers to apply their safeguards, as discussed in s. 3.2 below.

Box 4 | **National ESIA Requirements and Climate Change Policy**

The Ugandan ESIA Regulations, promulgated in 1998 do not mention climate change *per se*, but the National Climate Change Policy of 2015 aims to *"ensure a harmonised approach towards a climate-resilient and low-carbon development path for sustainable development in Uganda"*. One of the objectives to achieving this goal is to *"support integration of climate change concerns into planning, decision making and investments in all sectors and at all levels"*. From the KJE/KSB ESIA case study review, GHG mitigation has been assessed in the ESIA report, but not whether the infrastructure itself is resilient to future climate-related risks and whether climate change risks will be factored into decision-making. Thus, the ESIA was not fully responsive to Uganda's National Climate Change Policy (see Appendix B).

National Environmental and Social Impact Assessment and Informality

Another key question relates to whether the current national environmental and social impact assessment systems adequately address the socio-economic impacts of urban infrastructure projects. Here, we can start by looking at how the term 'environment' is defined in law; most countries have a different definition of the term, but many of these definitions consider the environment to be the physical surroundings (air, water, soil) of the human being, and the influence that these physical components have on humans. This definition is in contrast to seeing human beings as an integral part of the environment and agents of change within that environment. In some cases, the rather, limited interpretation of the term 'environment' is clarified in the EIA guidelines, regulations or guiding principles. If the social component is not defined as part of the term 'environment', social impacts are at risk of being overlooked (Walmsley and Husselman, 2020). **Very few countries actually define what 'social' means and whether it includes aspects such as health, gender, cultural heritage, livelihoods, occupational health and safety.**

Although there are international guidelines on best practice social impact assessment (SIA), and some countries have guidelines or regulations that provide greater clarity on what an SIA should include, most SIAs are rather poor. This issue may be ascribed to numerous reasons such as: the lack of clear definitions; a shortage of qualified SIA and health impact assessment (HIA) practitioners; inadequate sociological expertise within national environmental management ministries and agencies to critically appraise the SIA and HIA components of an environmental and social impact assessment report; and so on. **The fact that many informal settlements and businesses are illegal is another complicating factor in conducting comprehensive SIAs in the urban environment, as it becomes difficult to conduct meaningful social research in such situations and obtain reliable data.**

Theoretically, as many impacts as possible should be avoided during the project design stages (i.e., adopting the mitigation hierarchy) through a rigorous alternatives analysis and assessment. Doing so is particularly important in urban situations where choices need to be made and trade-offs negotiated, balancing economic, social and environmental considerations to achieve an optimum outcome. **In practice, however, those living, often illegally, in informal settlements deal with the consequences of planning decisions that affect them, precisely because they lack land title rights and business rights. Compensation in these situations will always be lower than in the formal urban environment (Box 5).**

Box 5 | **Differential Compensation**

A gap analysis conducted as part of the ESIA for the KJE/KSB road project, compared the Ugandan legislation and guidelines on compensation with the DFI requirements (International Finance Corporation (IFC)). This analysis found multiple discrepancies including:

- Under Ugandan laws, project-affected persons are compensated for the loss of their houses and gardens only if they have legally recognised rights to the land. However, IFC's PS5 requires that all affected persons should receive full compensation, regardless of their occupancy status.
- IFC PS5 states that economically displaced persons who face loss of assets or access to assets will be compensated for such loss at full replacement cost. However, Ugandan laws do not specify the kind of compensation to be provided.
- Under Ugandan laws, there is no requirement for the provision of supplementary assistance for vulnerable individuals and groups, i.e., the informal sector, but this is recommended in PS5.
- Ugandan legislation does not mention the need for a census of project-affected persons or an asset inventory, which are requirements in OS2 and PS5.
- Ugandan legislation does not mention the need for stakeholder consultation and participation in the resettlement process, which is not the case under OS2 and PS5.
- International guidelines indicate that a cut-off date for compensation eligibility must be defined, but this is not required in terms of Ugandan legislation.

The Resettlement and Livelihoods Restoration Plan for the KJE/KSB project stipulate that the more beneficial measures for the project-affected persons must be adopted and, therefore, since the IFC requirements are more favourable to the affected parties than Ugandan laws are, the IFC requirements for compensation will take precedence on this project.

Box 6 | **Examples Where Resettlement Impacts are not Assessed in the ESIA**

The original ESIA for the Kazungula Bridge over the Zambezi River linking Botswana and Zambia was based on the premise that only 3 households would need to be resettled. In the end, an entire village had to be moved, but this was never formally assessed in the ESIA.

On the Tunduru to Mangaka road project in southern Tanzania, the ESIA was based on 140 km of road and 309 households needing resettlement. The final project was 70 km longer and involved the resettlement of an additional 565 households, but this was never assessed.

A quick scan by the consultants during scoping of the Cuamba to Nampula road in northern Mozambique indicated that approximately 400 households would have to be resettled. This number was never confirmed during the ESIA, and only an abbreviated RAP was undertaken 2 years after the ESIA was completed (Walmsley, 2016).

One of the key impacts of infrastructure construction on urban development in general and on the informal sector in particular is involuntary resettlement, economic displacement and loss of livelihoods. Globally, the number of people who were affected by development-induced displacement and resettlement (DIDR) has increased from about 100 million in the decade from 1985-95 to an estimated 200 million in the period 2010-2020 (Anon, 2020). In the case of the KJE/KSB road project alone, almost 30,000 households will need to be moved and over 8,000 business will be affected However, the environmental and social impact assessment and the resettlement action plans (RAPs) are often done at different times, with the RAP coming later than the environmental and social impact assessment report, and usually undertaken by different consultants, as noted on the KJE/KSB project (see Appendix B). **This timing differential results in environmental and social impact assessment reports that are based on incomplete knowledge of the lives and livelihoods of people who may be physically and economically displaced by a development (see Box 6).**

In spite of promises of significant benefits arising from large urban infrastructure projects that cause DIDR, few actually materialise for the most marginalised and vulnerable (usually those living in informal settlements) due to: a lack of voice, illegal status (land ownership and/or citizenship), poverty, ignorance of rights in terms of the law (to fight against decisions) and the lack of follow-up monitoring to determine whether the project benefits predicted in the environmental and social impact assessment have occurred or not. Some of these failures are a function of informality, while others are faults in the environmental and social impact assessment process. It therefore requires dedicated, often externally funded programmes to ensure that project-affected people can benefit from the process, such as the Cities Alliance NOWO project (see Box 1).

Approved environmental and social impact assessment reports usually include an environmental and social management plan (ESMP) and monitoring programme, implementation of which forms one of the conditions of project authorisation and one of the main DFI loan conditions (Figure 4). However, an evaluation of historic World Bank projects between 1990 and 2010 (Cernea, et al. 2018) found that, during that period, only one third of all projects involving DIDR "satisfactorily"

restored pre-displacement livelihoods, and for half of the projects evaluated, neither the World Bank nor the implementing agencies knew whether livelihoods had been restored or not. **This indicates that the approved ESMPs and RAPs have not been implemented as required and compliance was rarely checked, which, for that period, is a serious failure of national and international safeguards to ensure the protection of displaced persons, especially those living in informal settlements.**

Environmental and social impact assessments often fail to adequately assess the length or duration of impacts on DIDR populations who experience a period of 'deferred investment' during the period leading up to actual resettlement. This failure can have a significant economic, health and social effect on people's lives and livelihoods. Walmsley (2016) found that the elapsed time between environmental and social impact assessment completion and the commencement of construction could be as long as 8 years (with an average of 4 years across seven transportation projects in SADC). In theory, developments that do not start construction within the validity period (usually 3 years) of the environmental and social impact assessment authorisation have to re-apply and re-submit an updated environmental and social impact assessment report to address the considerable changes that might have occurred in the intervening period, but this seldom happens in practice. In the case of the KJE/KSB road, 10 years have elapsed since the scoping study was conducted and the commencement date for construction is still not yet known. The cumulative impact of deferred investment over such a long time is severe but, in this case, it has been reported that the environmental and social impact assessment will be updated by the Design, Build, Operate contractor once they have been appointed and the final designs are in progress. This new factor provides an opportunity to rectify some of the shortcomings in the KJE/KSB study noted in this paper, but the impacts of such deferment remain (see Case Study in Appendix B).

Two key components of the environmental and social impact assessment process after the environmental authorisation has been received are: a) environmental monitoring and b) compliance auditing (Figure 4). The former is supposed to be carried out by the borrower, who is obliged to send regular monitoring reports to the environmental authorities. The aim of such environmental monitoring is to objectively determine the level of impact on the biophysical and social environments and to take corrective actions when specified thresholds, trigger values, standards and norms are threatened or exceeded. However, there are many challenges inherent in this activity, particularly in relation to monitoring social issues. Questions arise over who is responsible for undertaking the monitoring, the division of powers at government level, the availability of data, attribution of causes and effects and so on. **Without these activities being clearly defined in the ESMPs, monitoring of social and health mitigation measures tends to fail.**

The second key safeguard in ensuring that the mitigation measures included in the ESMP are being undertaken is the compliance audit, where implementation of the legally required conditions of the environmental authorisation (including the ESMP) is checked. In many countries in SSA, environmental and social impact assessment legislation places the onus for undertaking compliance auditing on the environmental authorities. **In practice, this auditing is seldom achieved due to a range of factors including the lack of adequate public sector resources (human, financial and operational)** (Walmsley and Husselman, 2020; Walmsley 2016).

It may be concluded that in theory, national safeguards in the form of environmental and social impact assessment policies and legislation, should be adequate to address issues such as climate change, the informal sector and resettlement in most countries in SSA, but in practice, there are many challenges to the effectiveness of these safeguard instruments, such as: a lack of regulations and guidance on climate change risk assessment; a lack of inclusion and definition of the term 'social' in much of the legislation; the disjuncture in timing of the environmental and social impact assessment and RAP; time lags between report completion and construction; and failures in follow-up monitoring and compliance auditing.

Strategic Environmental Assessment

Since the emergence of strategic environmental assessment (SEA) as a key tool in promoting

sustainable development in the 2000s, Strategic Environmental Assessment has been adopted by many countries around the world as a means of achieving the UN's Sustainable Development Goals (SDGs). Indeed, the Johannesburg Plan of Implementation, agreed at the World Summit on Sustainable Development in 2002, stresses

> "the importance of strategic frameworks and balanced decision-making as fundamental requirements for advancing the sustainable development agenda."

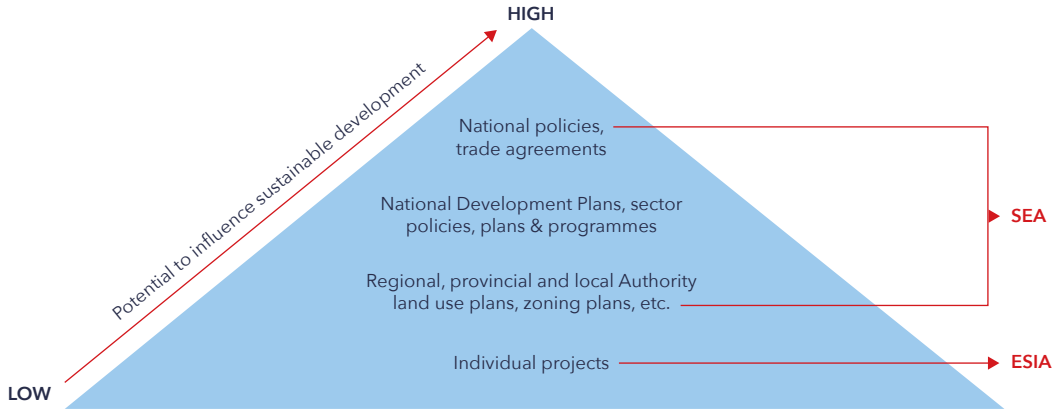
The shift from project-level environmental and social impact assessment (described in s. 3.1 above) to addressing cumulative development issues at a programmatic level through Strategic Environmental Assessment arose from the realisation that strategic-level interventions are needed to ensure that environmental, social and economic aspects are taken into consideration at all stages and tiers of national decision-making, as well as in development cooperation programmes (OECD, 2006). Strategic Environmental Assessment may be defined as a range of

> "analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter-linkages with economic and social considerations."[7]

Thus, Strategic Environmental Assessment plays a very different role than that of project-level environmental and social impact assessment, by focussing on international, national and regional policies, plans and programmes (Figure 5). This shift in approach allows sustainable development issues and cumulative impacts, including climate change, to be addressed at a much higher level than in an environmental and social impact assessment (Box 7).

Figure 5

Application of Strategic Environmental Assessment and Environmental and Social Impact Assessment at Different Levels



Source: B. Walmsley, 2021.

6 - European Directive 2001/42/EU, effective from 2004, and the Strategic Environmental Assessment Protocol to the Espoo Convention agreed in May 2003.
7 - For a more detailed explanation of SEA, see <www.oecd.org/environment/environment-development/36451340.pdf> and <https://www.environment.gov.za/sites/default/files/docs/series10_strategic_environmental_assessment.pdf>.

Box 7 | **Cumulative Impacts from Multiple Road Developments in Kampala**

Currently there are 8 major expressways at various stages of planning, construction and completion in the GKMA (of which the KJE and KSB are two). Kampala City Council officials cited the following cumulative impacts, which are caused by all of these road projects, but there have been no studies done to identify, quantify, assess or mitigate these cumulative effects (including the KJE/KSB ESIA):

- Drainage from new roads, which can cause erosion and downstream flooding;
- Drainage from construction sites, leading to erosion and sedimentation of receiving water courses;
- Dust and noise;
- Exploitation of raw materials for construction such as marram, stone, sand, which is straining existing quarries and borrow pits surrounding Kampala and forcing new quarries to be opened, with knock-on environmental and social effects;
- Construction traffic is causing damage to existing roads;
- Parallel developments near each other are causing a compound effect on traffic congestion;
- Influx of labour;
- Resettlement of people (sometimes more than once);
- The high cost of compensation;
- Impacts on livelihoods;
- Damage to forests and the natural environment, especially wetlands.

In the context of urban infrastructure development, informality and climate change, Strategic Environmental Assessment offers numerous other benefits for donor agencies and partner governments, as compared to environmental and social impact assessment, namely:

· Strategic Environmental Assessment ensures alignment of proposed donor projects/programmes with national policies and priorities, e.g., on climate change, transportation, urban development, water and sanitation, power, health, poverty reduction and biodiversity, etc. (Box 8)

· Potential issues, such as various climate change scenarios, can be addressed from a long-term strategic perspective to ensure sustainability of the policy, plan or programme.

· Strategic Environmental Assessment is conducted at an early stage of policy or programme planning, which means that it is possible to identify key risks, such as climate change, and opportunities (e.g., a burgeoning hybrid economy) so that they can be factored into the policy, plan or programme being assessed.

· It allows policies, plans and programmes to be assessed in terms of a number of potential development scenarios, such as climate change, macro-economic trends, commodity prices, population growth, urban migration, etc.;

· It encourages a multi-disciplinary approach to policy, plan and programme development, and inter-ministerial cooperation in ensuring its outcomes. This approach is especially important in the context of urban development where there is often an overlap between national and local government functions and mandates.

· Strategic Environmental Assessment promotes active stakeholder participation throughout the process. This aspect should be leveraged to ensure that all those affected by urban infrastructure development – whether they have land title or a business registration or not, can have a say in urban development policy development and planning instruments.

· It provides the overall framework for development in a given region or country and provides environmental and social quality objectives and targets for sustainable development, i.e., within the constraints and carrying capacity of the receiving environment (e.g., under a changing climatic system.)

· It assists with the identification of key performance indicators and the formulation of clear policy, plan or programme outcomes (based on agreed environmental quality objectives and indicators).

· It provides the overall framework for ESMPs to be developed for individual projects.

· Unlike environmental and social impact assessment, Strategic Environmental Assessment allows for the assessment of cumulative impacts in the context of past, current and future projects and programmes in the same area by the same or different proponents/funders. This evaluation is of critical importance in the context of climate change and the urban poor (Box 8).

Box 8 | **An Example of where Strategic Environmental Assessment Should Have Been Undertaken**

Currently in the GKMA, there are 15-20 major urban development projects, comprising major roads, a railway, a port, industrial estates, power distribution and housing projects that have been, are being, or are about to be built. The cumulative impacts on natural and social systems are highly significant, and there have been some instances when people have had to move twice to accommodate the footprint of construction. All of these are being funded by DFIs and fall under numerous line ministries and tiers of government. A Strategic Environmental Assessment of the GKMA Spatial Development Framework 2040 before it was approved by cabinet in 2013, would have helped to ensure a more coordinated, consistent and systematic approach by the relevant organisations and that cumulative impacts could have been better predicted and managed.

As with environmental and social impact assessment, the main implementation instrument is the Strategic Environmental and Social Management Plan, which should clearly set out the strategic management actions, monitoring plans, responsibilities and budgets.

It is argued that in urban areas with high levels of informality, better strategic planning through the use of Strategic Environmental Assessment and urban planning tools could have a more positive outcome than the application of project-level environmental and social impact assessment. Strategic Environmental Assessment provides the platform to look at a range of transportation solutions (for example, not just new roads.) Strategic Environmental Assessments can examine various climate change scenarios and determine the causes and effects of various development and city growth options. **Thus, although Strategic Environmental Assessments should be done according to the legislation in many countries for all infrastructure policies (e.g., road transport policies, energy policies, water and sanitation policies and so on), very few are actually undertaken. This slow uptake may be due to a number of key factors: lack of country 'ownership', timing, stakeholder engagement issues, capacity constraints, and lack of legal certainty regarding the need for such assessments and the approval thereof (Loayasa, 2012).**

3.2 | Application of International Safeguards by Development Finance Institutions: Theory and Practice

All the DFIs reviewed express comprehensive statements on and commitment to sustainable development, but climate change, human rights and open stakeholder engagement are central only to the Visions and Missions of the non-Chinese DFIs. In this section, we will analyse the respective safeguards in terms of a) their content, especially relating to the nexus of the urban poor and climate change and other socio-economic challenges; and b) their actual application by the relevant DFIs at each stage of the project life-cycle (as shown in Figure 6).

A summary of the steps taken by each of the DFIs studied for this paper in their appraisal and approval of projects is provided in Appendix A. This analysis shows that each DFI follows a largely similar process in screening, evaluating and approving loans for capital projects, but some significant differences exist among them in the level of environmental and social scrutiny. For example, both Chinese DFIs rely solely on in-country environmental and social impact assessment systems and processes (as described in s. 3.1) and merely require an approved environmental and social impact assessment as proof that all relevant environmental and social issues have been addressed. In contrast, all the other DFIs have environmental and social specialists on staff to carry out independent risk appraisals, environmental and social impact assessment review, project supervision monitoring and compliance checks. In the following sub-sections, we will examine the application of the DFI appraisal systems in relation to climate change and urban social issues at each stage of the loan approval process (Figure 6).

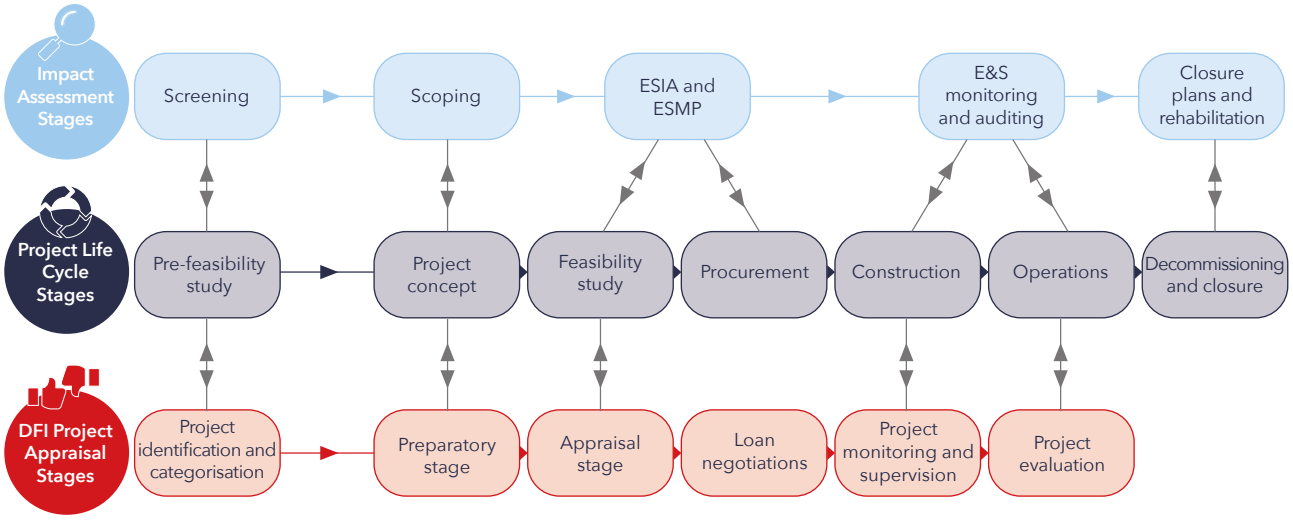
Policies, Plans, Programmes and SEA

Three of the DFIs (WB, AfDB and JICA) have a stage in their processes prior to project identification during which country programmes and policies are assessed to determine whether there is a need for a Strategic Environmental Assessment (Appendix A). The WB's Country Environmental Analysis is a type of policy Strategic Environmental Assessment, which has been developed to inform the dialogue between the Bank and client countries on national environmental priorities (Loayasa, 2012). This policy has been promoted as a flexible tool with three analytical building blocks: assessment of environmental trends and priorities, policy analysis, and assessment of institutional capacity for managing environmental resources and risks (Dalal-Clayton and Sadler, 2005). The Bank has also developed a range of other SEA-like tools, which, although they have different names, merely reflect the scope of the Strategic Environmental Assessment being carried out, rather than being different tools: hence, regional and sectoral environmental assessments, policy Strategic Environmental Assessment and hybrid Strategic Environmental Assessments that combine policy and impact-centred Strategic Environmental Assessment approaches (Loayasa, 2012).

Loayasa (2012) reports that the World Bank completed 55 Strategic Environmental Assessments or SEA-like assessments from 1999 to early 2012, which equates to four per year, and some of these were Country Environmental Analyses, which were intended more to guide Bank investments than to assess any specific policy, plan or programme. The low number of assessments indicates that Strategic Environmental Assessments at that time, were not being widely applied by the World Bank, although Loayasa does note that policy Strategic

Environmental Assessments have been increasing since that period and have been found helpful in improving dialogue between the Bank, the borrower and affected stakeholders.

Figure 6
Impact Assessment, Project Life Cycle and DFI Appraisal Stages



Source: B. Walmsley, 2021.

The AfDB's Environmental and Social Assessment Procedures suggest that one of the tools that can be used during the Project Preparation stage (see Appendix A) is a Strategic Environmental Assessment. The format for the contents of Strategic Environmental Assessment and environmental and social impact assessment reports is provided in Annex 7 of the Bank's Procedures, but the fact that the same contents are given for both types of report, demonstrates a failure to understand the significant differences between the two tools and the contents of the respective reports. **In spite of the fact that the AfDB's Safeguards make a Strategic Environmental Assessment a mandatory tool to address environmental and social issues arising from large-scale infrastructure projects, no Strategic Environmental Assessment was undertaken for the KJE/KSB project they co-funded.**

In conclusion, the requirements for SEA, or an SEA-like approach to national development is included only in the safeguard systems of the WB, JICA and the AfDB. Some Strategic Environmental Assessments have been carried out, but the application appears to be limited, and many of the World Bank's Country Environmental Analyses have been prepared from the perspective of potential investment decisions, rather than from an analysis of any specific policy, plan or programme.

Given the "strategic" nature of Strategic Environmental Assessments, it would seem to be the most appropriate tool to be applied more widely to policies, plans and programmes relating to urban infrastructure development and the intersecting issues of climate change and poverty. This is an area that needs to be developed more fully in the future if we are to achieve real sustainable development in the face of climate change and reduce the stark social and economic inequalities present in many of our cities.

Project Identification and Screening

Apart from both the Chinese DFIs, which rely on in-country environmental and social impact assessment screening processes, all of the non-Chinese DFI systems evaluated subject prospective projects through a screening process to determine whether projects need to have a full environmental and social impact assessment, an

ESMP or no formal assessment. Screening decisions are usually based on: a) the nature and type of project being proposed and b) the sensitivity of the biophysical and social environments in which the project will be located. While the definition of what is meant by 'social' may not be explicit in some of the safeguards (e.g., KfW), others include a comprehensive description of what 'social' includes (e.g., JICA). The WB's definition of disadvantaged and vulnerable is worthwhile considering in the context of this paper dealing with informality:

> "Disadvantaged or vulnerable refers to those who may be more likely to be adversely affected by project impacts and/or more limited than others to take advantage of project benefits. Such an individual/group is also more likely to be excluded from, or unable to participate fully in the mainstream consultation process and as such may require specific measures and/or assistance to do so. This will take into account considerations relating to age, including the elderly and minors, and including in circumstances where they may be separated from their family, the community of other individuals upon whom they depend."
>
> (World Bank, 2017a).

In terms of the above definition, all those living in informal settlements could be considered 'disadvantaged' and/or vulnerable and require special attention under all the safeguards examined. **It follows, therefore, that any urban infrastructure project being funded by a DFI that affects elements of informality should require the undertaking of a full environmental and social impact assessment.**

The AfDB, JICA and DBSA include climate change as one of the screening criteria, and KfW places climate protection and sustainability at the heart of their funding decision-making (KfW, 2019) (Box 9). The Chinese banks, however, do not mention climate change as a specific criterion for project categorisation. The World Bank's screening criteria include all social and environmental risks, of which climate change is one such risk, as elaborated on in the Environmental and Social Management Framework (ESMF).

Box 9 | **Climate Screening by KfW**

According to the KfW Sustainability Guidelines (2019), climate screening is conducted in two ways:

- The emission of GHGs from the proposed project;
- What adaptation measures are required, including an analysis of whether the project in question can contribute towards significantly enhancing the adaptive capacity of target groups and/or ecosystems. The analysis must determine the direct and indirect effects of climate change, as well as the compatibility of the proposed project with the country's climate change policies, strategies, nationally determined contribution and adaptation plan.

Project Preparation and Scoping Stage

This stage of the DFI appraisal process should correspond to the pre-feasibility stage of the project and the scoping stage of the environmental and social impact assessment (Figure 6). It is interesting to note that the requirements of this phase include vetting the terms of reference for the environmental and social impact assessment, collecting baseline E&S data and, in the case of JICA, conducting a site visit (Appendix A). However, none of the DFIs (except DBSA and JICA) requires a scoping study to be produced and reviewed. The scoping study

is a critical document – if the project impacts are not correctly scoped, the environmental and social impact assessment is likely to be flawed. In addition, the scoping stage is the first main opportunity for stakeholder involvement and where in-project alternatives are evaluated; it is also the point in the process when the environmental and social impact assessment consultants need to work closely with the project design engineers to avoid as many impacts as possible through layout, planning and design. **The absence of any scrutiny of the scoping report by most DFIs is clearly a matter of concern.**

Project Appraisal, Environmental and Social Impact Assessment Stage

The environmental and social impact assessment report should be compiled at the same time as the full technical and economic feasibility studies in order to ensure that there is sufficient integration of environmental opportunities and constraints in the final project design (Figure 6). The DFIs' project appraisal stages all recognise the congruity needed between the environmental and social impact assessment and full feasibility studies; in addition, they all include actions relating to the review of the environmental and social impact assessment report. But are the project appraisal processes systematic and critical? Do they explicitly consider climate change impacts and rigorously examine the social impact assessments and RAPs?

Appraisal Process

All projects financed by the non-Chinese DFIs evaluated for this study are subject to a comprehensive and systematic E&S due diligence exercise, as well a climate change assessment (amongst others). The environmental and social appraisal systems tend to be similar and include a number of common elements (Appendix A), such as:

- The need for compliance with all relevant national policies and legislation, including the receipt of all requisite permits, licences and authorisations

- Borrowers are assessed in terms of their capacity to manage the environmental and social risks (amongst other factors).

- Environmental and social impact assessment reports are reviewed to determine whether all the significant environmental, social and climate risks and impacts have been identified and scientifically assessed.

- There is a need for all ancillary and associated project components (without which the project cannot operate, e.g., access roads, powerlines and pipelines) to be taken into consideration in assessing the totality of impacts, even if the associated components fall under different ministries and funding arrangements.

- The need to consider cumulative impacts caused within the project itself and between the proposed project and other existing and known future developments

- Disaggregation of impacts on the basis of sex, vulnerability or other necessary distinguishing factors to ensure that the impact assessment considers the range of impacts on a given community

- There is also a need for a detailed, costed ESMP in which mitigation measures and project enhancement measures are specified for each impact. Borrowers are required to apply the mitigation hierarchy.

- If major mitigation and/or compensation measures are required, the costs of such mitigation have to be taken into account in the financial/economic feasibility study and included in the funding request. This process is essential to ensure that the actual costs of mitigation are included in the loan agreements.

- The inclusion of all required specialist studies as specified in the approved terms of reference, such as social, health, gender impact assessments.

- Consideration of the scope, comprehensiveness and process followed, so as to allow meaningful stakeholder consultation.

All the DFIs examined, including the two Chinese banks, state that projects with significant environmental and social risks that cannot be adequately mitigated through layout and/or technological changes or suitable offsets, will not be eligible for funding.

While many environmental and social impact assessment reports benefit from DFI reviews, there are still many examples of poor practice, such as: lack of critical review; failure to check whether the document fulfils the terms of reference and

minimum country report standards; inadequate scrutiny of the ESMP requirements and the proposed budgets; and, finally, the summaries included in the project appraisal documents tend to focus on the benefits of the project at the expense of the adverse effects and how these might be managed.

Climate Change

Addressing climate change lies at the core of the safeguards of the DBSA and KfW, and there are many examples of projects being funded by these banks that specifically address climate change (Box 10).

Box 10 | **Integrated City Infrastructure Development for Increased Resilience to Climate Change (KfW)**

In Khulna, Bangladesh's third largest city, the existing transportation infrastructure needs to be expanded to meet future needs and to feed into the concept of inclusive city growth. The city's low-lying position along the Rupsha River means it has to deal with increasing incidences of flooding and waterlogging of entire city districts. Furthermore, the influx of the poor from rural areas is leading to an increase in the size and number of slum settlements in the city. The German government has started to work with the city to address these issues, with the aim of sustainably improving the living conditions of the urban population via crucial infrastructure investments and municipal governance reform. In addition to providing technical assistance to the municipality, the German government is planning a major € 10.5 million investment in transport infrastructure through KfW Development Bank.

The World Bank did not publish its Climate Change Action Plan until 2016, the same year that the Bank's Environmental and Social Management Framework (ESMF) was brought out. While climate change is only briefly referred to in the ESMF, the Action Plan seeks to mainstream climate change throughout the

Bank's operations along four top-level priorities: (i) support transformational policies and institutions, (ii) leverage resources, (iii) scale up climate action, and (iv) align internal processes and work with others. Under item iii, the focus will be on renewable energy and energy efficiency, sustainable mobility and sustainable and resilient cities, amongst others. WB has set ambitious goals to increase the resilience of cities to climate change in an approach that integrates infrastructure development, land-use planning, disaster risk management, institutions/ governance, social components, water management and infrastructure investment. This plan presents an ideal opportunity to apply Strategic Environmental Assessment to urban development programmes.

Any project being funded by DFIs, such as KfW, JICA, AfDB or DBSA, should require climate change assessments and plans to be addressed in the environmental and social impact assessment, ESMP and Environmental Management System – both in terms of how the project is likely to affect climate adaptation and mitigation, and how climate change will affect the resilience of the project itself. This assessment is essential, especially when it comes to ensuring that project designs avoid or minimise GHG emissions, on the one hand, and are resilient to future climate scenarios, on the other. For example, using historical 1:50 and 1:100 floodlines in present-day designs may not adequately reflect a future scenario. However, the guidance of what should be included in a climate change risk assessment varies considerably, with KfW leading the way (Box 9). On the other hand, AfDB offers only guidance on GHG accounting in its safeguards and does not provide guidance on how to conduct a climate risk assessment or do climate resilient designs.

Social Impacts

All the non-Chinese banks reviewed place a major emphasis on stakeholder engagement and the disclosure of documents for public comment. All seek to ensure that the environmental and social impact assessment: includes a detailed institutional and social appraisal of key stakeholders and project-affected communities; assesses the level of community organisation and representation; identifies the project's impacts on affected communities and beneficiaries; and assesses the community's readiness to receive the project. They also emphasize resettlement, economic displacement and human rights. For example, KfW requires the borrower to prepare a stand-alone Livelihoods Restoration Plan and RAP if there will be a loss of livelihoods due to land take and involuntary resettlement (KfW, 2019). All DFIs state that compensation must be paid in full in advance of construction, and efforts by the host country must be made to ensure that all people affected by projects are able to improve their standard of living, income opportunities and production levels to at least the same, or better, than pre-project levels. However, in many cases, this compensation does not occur. Sometimes, this failure is because the RAP lags behind the environmental and social impact assessment process and may still be ongoing by the time the contractor establishes on site (Box 6). It may also be caused by the division of a linear project into different lots, funded by various DFIs, or it may be caused by institutional issues around receiving and disbursing money for compensation. Either way, such delays can cause severe social unrest and mental and economic trauma for those most affected.

Another criticism is that while most DFIs require impacts to be disaggregated on the basis of gender (at least), very few, if any, environmental and social impact assessments provide this level of analysis, and borrowers are seldom, if ever, required to correct this lack of compliance. In addition, the requirement exists under all the non Chinese safeguards reviewed for a gender impact assessment to be compiled for those projects if such an assessment would be relevant. Again, this requirement is rarely performed.

In summary, reliance on in-country environmental and social impact assessment systems and quality assurance procedures by CDB and China EXIM Bank without any further scrutiny is a risky approach when many SSA country systems are known to be weak in practice (as described in s. 3.1). On the other hand, the application of safeguards and quality assurance by the other DFIs in theory appears to be robust, with most embracing the threats of climate change and the need to safeguard the most vulnerable and disadvantaged of society. However, we have seen that in practice, the safeguards may not always be fully applied and the required standards are not always upheld.

Loan Negotiations

This stage of the DFI appraisal process does not correspond with stages in the technical or environmental and social impact assessment life cycles (Figure 6), but it is of critical importance in determining the E&S outcomes of project implementation.

In an analysis of seven transportation projects for the AfDB, the author found that the budget amounts specified in the project appraisal reports and loan agreements for ESMP implementation bore little resemblance to the budgets provided in the ESMPs themselves (Walmsley, 2016). In none of the cases was any justification provided regarding the change in budgets (usually considerably lower). In all cases, the scope of the project changed, sometimes significantly, between the EIA report completion and the finalisation of the project appraisal reports. Yet, no effort was made to amend the ESMP implementation budgets accordingly (Box 6). It seems that the amounts allocated to E&S mitigation are somewhat random, with little transparency around financial decision-making concerning environmental and social issues.

Implementation, Monitoring and Compliance Auditing

There are several key aspects to this stage of the project lifecycle (Figure 6) that need to be highlighted in this report:

- Procurement processes
- Roles and responsibilities for environmental management, E&S monitoring and compliance auditing
- Grievance redress mechanisms

The success or failure of these key aspects can determine the E&S outcomes of a project, irrespective of the quality of the safeguard process up to this point. Examples from Walmsley (2016) found that good quality environmental and social impact assessment processes do not necessarily result in good outcomes and *vice versa*.

Procurement Process

Most DFIs have a published set of procedures regarding their procurement processes, and all tend to follow a similar process to ensure technical and financial quality. Factors that are not always clear are a) whether the ESMP is included in the bid documents for contractors to price and b) whether there is an E&S specialist on the tender evaluation team to review the contractors' methods, approach, costing and track record regarding E&S management. If E&S mitigation measures are not priced by the contractors, it is unlikely that they will be implemented. Requesting Variation Orders at a later stage to accommodate the required E&S measures can be very costly to operate, in terms of the environment and social licence.

Roles and Responsibilities for Environmental Management, Monitoring and Auditing

In theory, there are several layers of safeguards in place to ensure that the required E&S mitigation and monitoring is undertaken and is effective, as shown in Table 3 and Figure 7.

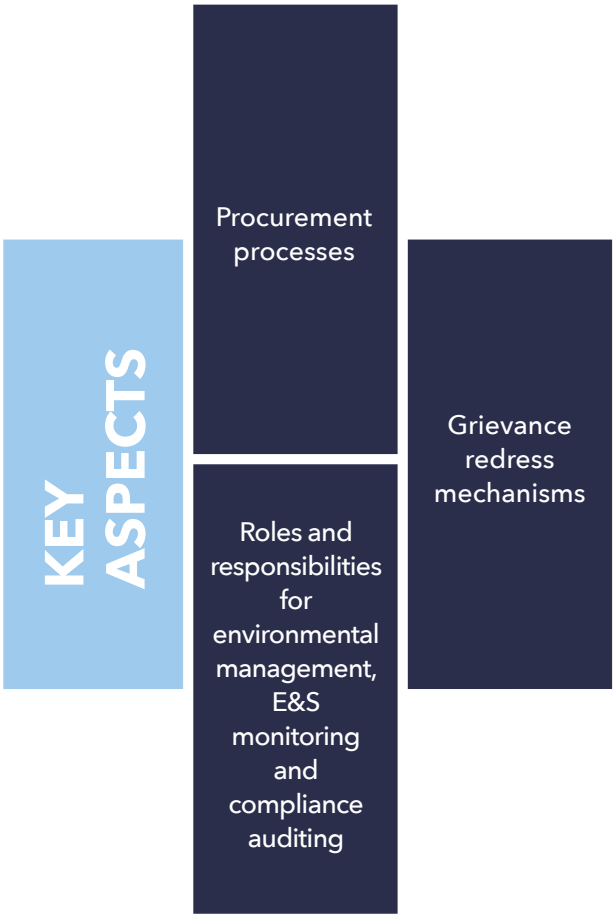


Table 3

Roles, Responsibilities and Challenges in Project Implementation Management and Monitoring

Responsible unit/party	Responsibilities	Challenges
DFI E&S Safeguard specialists	· Ensuring a satisfying implementation by the borrower · Ensuring E&S legal compliance · Reviewing regular monitoring reports · Carrying out supervision missions	· Lack of: · capacity to visit sites regularly · training on conducting a detailed compliance audit · Reliance on monitoring reports received from the borrower
National environmental authorities	· Ensuring legal compliance with the environmental permit · Compiling regular reports to the implementing agency	Often lack of: · Capacity to visit all sites, as specified in the law · Training on conducting a detailed compliance audit · Training on compiling a detailed audit report · Following upon corrective actions · Enforcement and penalties for non-compliance · Social, health and gender expertise · Coordination between various government agencies
Implementing agencies (government ministries)	· Overall management of the project, including legal, technical, economic and E&S compliance	Lack of: · capacity in the E&S units on regular compliance audits · training on undertaking systematic E&S audit
Resident Engineer/ Supervising Engineer/ Consultant[8] and their E&S officers	· Providing overall management supervision on behalf of the client · Appointment of E&S officers to monitor E&S compliance with the permit conditions and the ESMP · Ongoing liaison with stakeholders · Ensuring effective, accessible GRM in place · Hold regular meetings on E&S issues · Account for all project expenditure and process payment claims	· Sometimes the resident engineers may be unaware of the ESMP · There may not be an environmental and social officer in place. · E&S issues not standing items on project meeting agendas · E&S reports are not acted upon · Lack of financial accounting for E&S expenditure · Language and cultural issues may hinder effective management
Contractor's environmental control officer and community liaison officer	· Appointment of an environmental control officer and a community liaison officer · Ongoing liaison with stakeholders · Implementation of the GRM and timely response to all complaints · Hold regular meetings in on E&S issues · Account for all project expenditure on individual items of E&S management	· Not all of the E&S roles are filled, if at all · E&S officers are sometimes very young and inexperienced and have no 'voice' on site · E&S officers may not have the necessary human, financial and physical resources · E&S officers may lack training in technical aspects of environmental monitoring · E&S officers are not required to account for their expenditure
Third parties (e.g., consultants)	· Conducting aspects of E&S management, monitoring and auditing · To provide regular monitoring reports	· Difficult for non-site-based consultants to ensure corrective actions · Third parties can be very costly especially when the project sites are remote

8 - There are many different titles given to the client's representative on site.

All the DFIs reviewed in this paper require the in-country implementing agency to operate an appropriate project auditing and monitoring system. The implementation of the mitigation measures identified in the approved ESMP will be stipulated as binding on the implementing agency in the loan agreement. Although most DFIs state that they require 'regular reports' on the implementation of the project and any corrective actions taken, this means that all responsibility rests on the in-country government to adequately monitor the project and enforce compliance. **As can be seen from s. 3.1 and Table 3, these 'regular reports' present many challenges and without support, in-country government agencies tend to perform weakly in this area, meaning that projects are not subjected to the degree of scrutiny required.**

However, if a particular project is complex or high risks have been identified, some DFIs may appoint an independent third party to conduct the monitoring on behalf of the implementing agency, or the DFI will carry out its own supervision missions.

The degree of compliance monitoring and auditing is, therefore, dependent on whether a) the project is correctly categorised upfront; b) environmental, health and social issues are identified as high risks and there are adequate mitigation measures set out in the ESMP being audited; c) monitoring by the borrower is accurate and adequate; and d) there is enough expertise within the bank's E&S safeguards division to critically assess the monitoring reports received. If climate and social impacts are not correctly identified in the environmental and social impact assessment and/or the mitigation measures are weak, the situation may be one in which the compliance audit shows satisfactory levels of compliance, but in fact, there may be genuine E&S concerns on the ground.

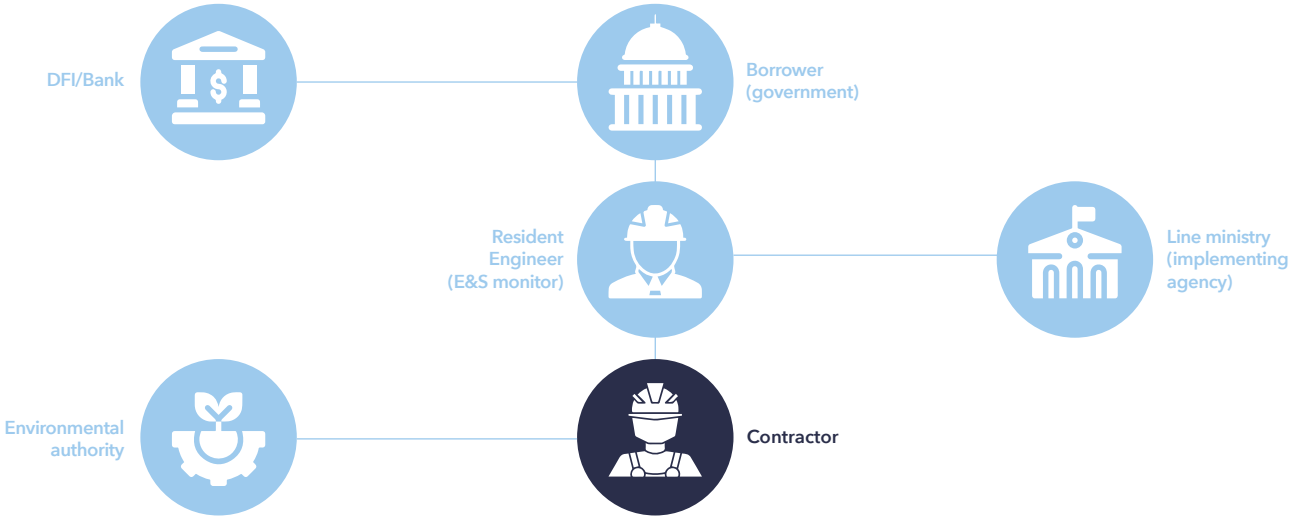
What is missing from all of these compliance roles is any accountability for expenditure for E&S issues against budget. Given that hundreds of thousands of dollars are loaned to the borrowers for the explicit expenditure on 'ESMP implementation', and other cost items, it is inexcusable that there does not appear to be any accountability for either the expenditure per se, or the effectiveness of the programmes being funded.

Grievance Redress Mechanisms (GRMs)

The WB, KfW, JICA and DBSA require borrowers to set up an accessible GRM so that any complaints about the project can be brought to the attention of the funder and the implementing agency. Too often these GRMs are inaccessible to the poor, who may lack access to the internet, electricity or smart phones/computers and who may lack the language skills, knowledge of their rights and political standing to express their grievances through the GRM system. To be effective, GRMs need to be set up at the lowest level of community organisation, so that

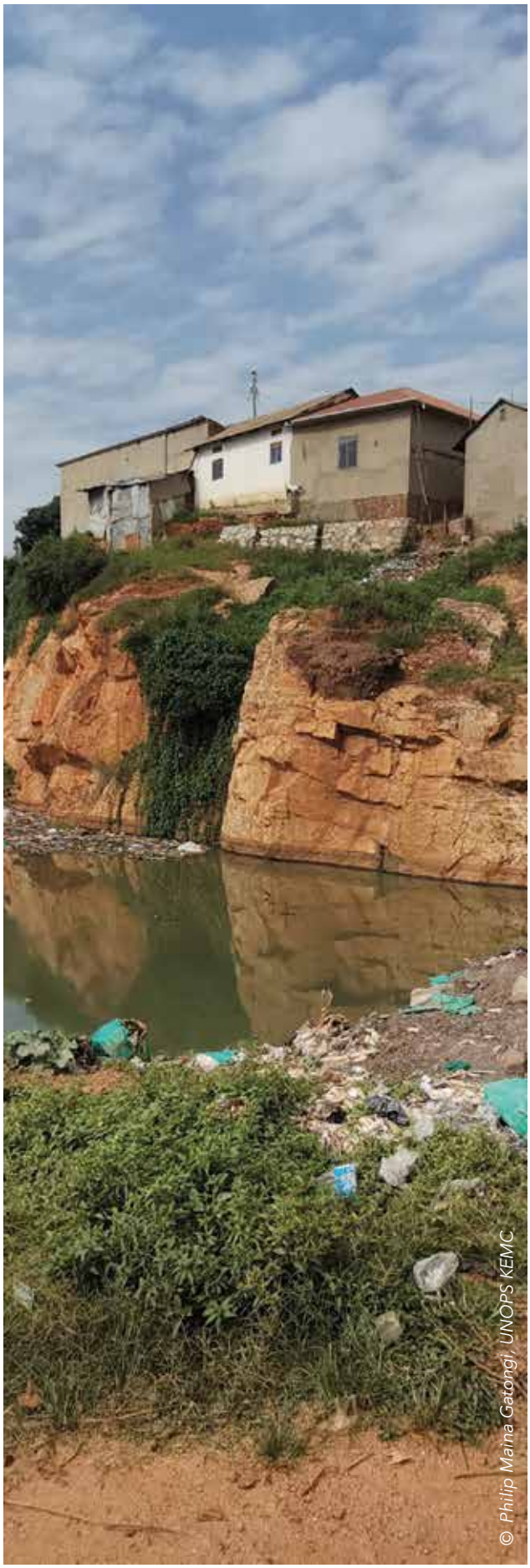
Figure 7

Roles for E&S Monitoring and Auditing



Source: B. Walmsley, 2021.

they can be accessed by everyone. In most cases, local grievances can be addressed immediately by the contractor or implementing agency, without resorting to higher national and international agencies. However, major cases may be referred to the responsible DFI, and there are several examples of where the GRMs have been effective in rectifying major issues.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4. Conclusions

The question posed at the beginning of this paper was whether the safeguards work effectively in the context of the urban poor, infrastructure development and climate change, and are they applied consistently and practically in the context of urban informality. This paper examined national and international DFI E&S safeguard systems and the conclusion is that in theory, yes, they do address these issues. However, this review has exposed several weaknesses in practice in both national environmental and social impact assessment legal processes and international DFI safeguard systems.

In terms of national legislation, application of the environmental and social impact assessment laws and regulations regarding climate change and informality is sometimes limited in effectiveness due to:

- Lack of expertise and capacity relating to climate change and social issues within national environmental authorities;
- Lack of guidance and regulation about what comprises a good climate change risk assessment and social impact assessment at the national level;
- Difficulties in carrying out meaningful stakeholder engagement and RAPs in informal settlements because of the often illegal nature of the settlement, the presence of undocumented migrants and unregistered businesses, none of whom want to be 'seen' or 'heard' by the authorities. Formal tools such as RAPs and SIAs (which require details about every affected person) and stakeholder registers are, therefore, not useful in these situations;
- Lack of coordination and synchronicity between the environmental and social impact assessment and the RAP studies, with the latter often occurring after the environmental and social impact assessment has been completed, meaning that social issues are not fully addressed in the environmental and social impact assessment;
- The frequent extensive lapses of time between the completion of the environmental and social impact assessment report and the

commencement of construction, during which conditions on the ground, particularly in fast-developing urban environments, could have changed considerably;

· Inadequate levels of social and climate change monitoring and auditing of both the negative effects and the benefits promised;

· Project scope creep post-environmental and social impact assessment, which can mean that the environmental and social impact assessment is based on a project that ends up being very different to the one being implemented.

Many international non-Chinese DFIs reviewed here have their own safeguard system in place or use the WB's ESMF or the Performance Standards advocated by the IFC. The Chinese Banks, however, rely on in-country environmental and social impact assessment systems, without any apparent oversight or quality assurance. However, of the DFI safeguards reviewed in this paper, there are some weaknesses inherent in the approach, application and practice:

· The scoping reports are often not appraised by the DFIs, which has implications for the ultimate quality of the environmental and social impact assessment report regarding the correct identification of issues, project alternatives and stakeholder engagement. In other words, the DFIs tend to get involved too late in the environmental and social impact assessment process;

· Increasingly often, environmental and social impact assessments are done too early in the project lifecycle – i.e., at pre-feasibility level to obtain early environmental approval (both the Chinese banks seek to obtain early environmental approval). It is, thus, very difficult to produce a meaningful, quantitative environmental and social impact assessment report based on a project concept, rather than on detailed designs, which renders the environmental and social impact assessment report less than useful for decision-making (Figure 6);

· Environmental and social impact assessment report appraisal by bank E&S specialists is not always as rigorous as it should be. Report deficiencies that are not picked up include weak or non-existent assessment of climate change risks, impact on gender, vulnerability, health, traffic, economics and livelihoods, all of which are relevant to infrastructure development, climate change and informality in urban areas;

· The costs of mitigation measures and monitoring programmes set out in the ESMPs are often not accurate, due to the difficult issue of the timing of the ESMP completion in relation to contractor procurement. Many of the measures listed need to be costed by the contractor, rather than by the environmental and social impact assessment consultant, who may not have the experience to budget for capital items and construction costs. But, in order for the cost of ESMP implementation to be included in the overall loan amount, the mitigation measures and monitoring programme have to be costed. However, as highlighted in this paper, the actual amounts for ESMP implementation included in the final loan agreements often bear no resemblance to the ESMP estimates. Greater transparency and attention need to be given to this key aspect by all DFIs;

· There are some inconsistencies in the procurement process relating to the inclusion of the ESMP in the bid documents and the evaluation of E&S provisions in contractor tender documents;

· There is no accounting for E&S expenditure and no examples could be found in which expenditure on individual mitigation measures is accounted for or audited in terms of effectiveness;

· Project implementation monitoring and auditing is weak, with too much reliance on over-stretched and under-capacitated country governments to carry out this essential role. DFIs place too much emphasis upfront on the environmental and social impact assessment and too little on implementation auditing and E&S monitoring;

It is also concluded that Strategic Environmental Assessment is not used enough as a tool at the policy, plan and programme level, especially when looking at global factors such as climate change and regional/national level issues such as urban in-migration. With national governments often being unable to fund such studies, it is recommended that DFIs should look to develop this capacity and support more governments to undertake Strategic Environmental Assessments for large infrastructure development programmes within urban areas in parallel with overall city planning.

5. Recommendations

From the analysis conducted for this paper, there are two main recommendations for Cities Alliance to pursue:

- **Promotion of the use of Strategic Environmental Assessment and**
- **Quality assurance and control in the post-environmental and social impact assessment phases of project implementation and operation.**

These recommendations are elaborated upon below.

Because poor communities, and especially those living in informal settlements, are marginalised, as discussed above, they exhibit **low levels of adaptive capacity and resilience** to global changes in climate as well as to other major shocks, such as disease pandemics, earthquakes, etc (Spear et al, 2018). However, top-down interventions targeted at addressing local short-term problems are unlikely to be effective in the long-term because they are developed without input from local stakeholders. By the time **city residents do have an opportunity to express their opinions** about a project during the environmental and social impact assessment process, it is usually far too late in the decision-making chain. Reversal of such decisions, or the consideration of strategic alternatives, is rarely achieved under this top-down paradigm.

What is needed is a transformative and holistic approach to policy-making, urban development, poverty reduction and infrastructure development to ensure that informal settlements are integrated into overall city planning (Tarr, 2020). **Collaborating with communities and civil society organisations in providing much needed infrastructure and services and improving housing quality based on a participatory approach will help to improve resilience and reduce health risks and economic disparities** (Dodman et al. 2019 in Tarr, 2020) (Figure 8).

However, this sort of approach requires considerable input in terms of developing capacity within the various sectors, a democratic society and a willingness to cooperate (to avoid the pitfalls experienced at Jinja

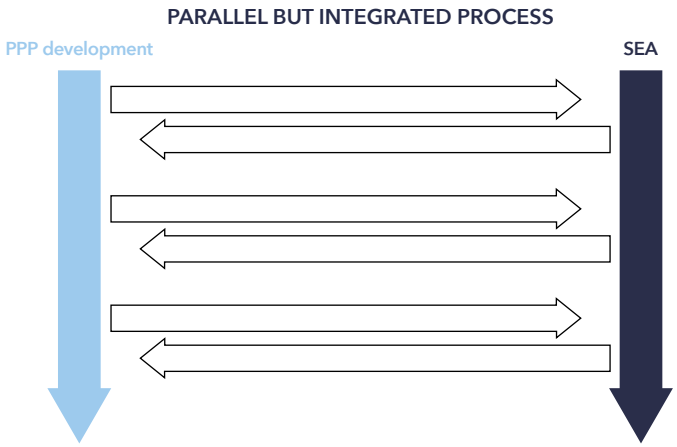
(Box 3)). The outputs are sensitive developments, which meet the needs of the community in an African city, embrace climate change and reflect a shift to a green economy.

Figure 8
Participatory Planning

Source: B. Walmsley, 2021.

By its very definition, Strategic Environmental Assessment promotes a participatory approach to the development of policies, plans and programmes, and should be done in parallel with their elaboration (Figure 9). The use of Strategic Environmental Assessment is particularly effective in urban environments, as it gives urban residents a 'say' in how their city develops in an integrated, sustainable and people-centred manner. Another of the key pillars of Strategic Environmental Assessment is the articulation of a common vision and limits of acceptable change. Encouraging citizens to contribute to a common vision allows greater buy-in to development decisions consistent with this vision.

Figure 9
Strategic Environmental Assessment as a Parallel but Integrated Process with Policy, Plan and Programme Development



Source: B. Walmsley, 2021.

Thus, it is recommended that Cities Alliance promote the use of Strategic Environmental Assessment as an extremely useful tool for urban planning and decision-making. Doing so allows a participatory approach, focusses on cumulative impacts, sets sustainable development objectives and ensures that policies, plans and programmes are compatible with national, regional and international objectives and targets such as the SDGs.

The second key recommendation lies in the post-environmental and social impact assessment phase of project development, the stage after environmental and social impact assessment approval (Figure 9). As summarised in the Conclusions above, there are several weaknesses in all the safeguards systems during this post-environmental and social impact assessment stage, and it is recommended that four key activities need greater attention:

- More accurate budgeting for mitigation and monitoring measures in the loan agreements and budgets for ESMP implementation need to be ring-fenced.

- Procurement processes that include the ESMP in the tender documents, and where environmental and social issues are evaluated fully by the tender adjudication team;

- More effective environmental and social effects monitoring and reporting to better understand whether a) impacts are occurring as predicted and b) whether prescribed targets, goals and standards for environmental and social performance are being met; and

- Auditing compliance with the conditions set out in the environmental authorisation and in the loan agreement. Usually, these conditions include compliance with the ESMP, prepared as part of the environmental and social impact assessment.

Thus, it is recommended that Cities Alliance track the progress of one or more urban development projects to determine how well these aspects are being addressed and where improvements can be made.

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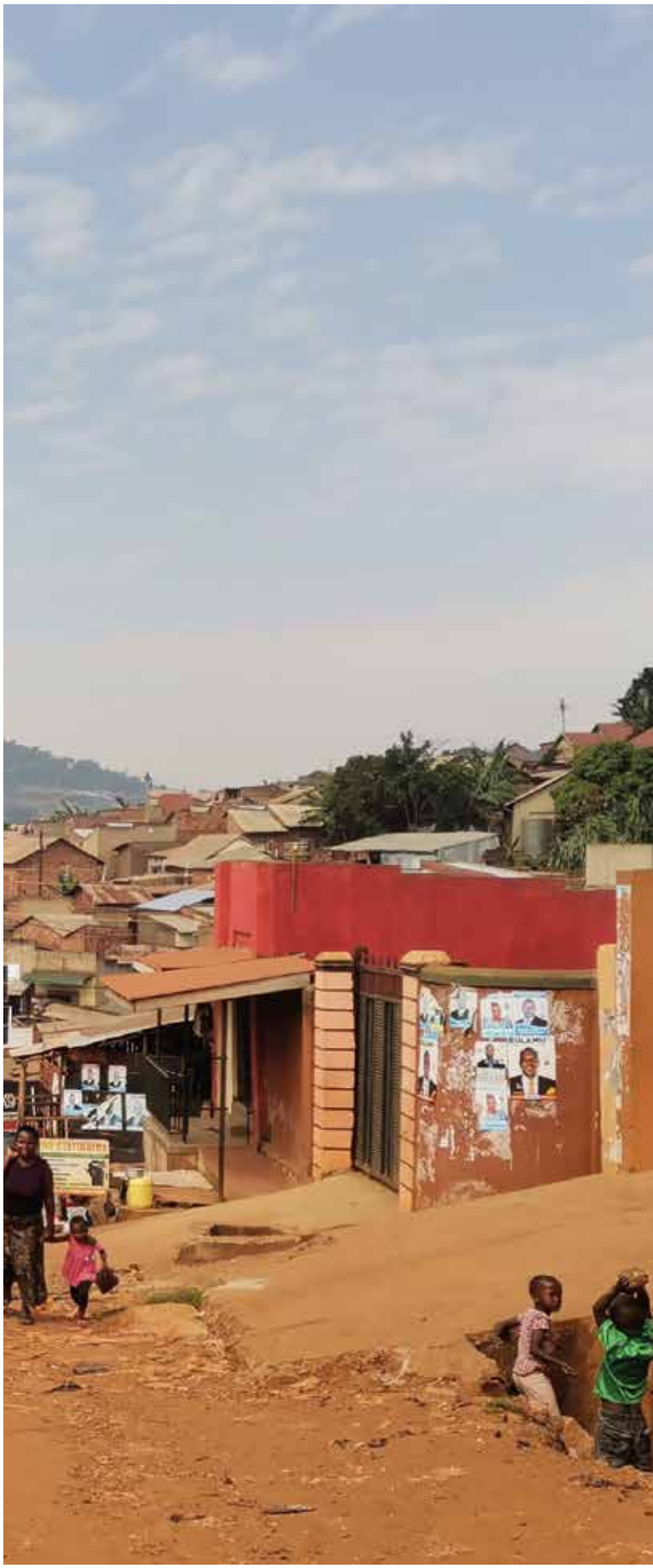

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Appendix

Appendix A

Development Finance Institutions Project Appraisal and Approval Processes

Steps and Subsequent Activities Undertaken by Development Finance Institutions for the Appraisal and Approval of Projects

World Bank/ KfW	AfDB	JICA	DBSA	China Development Bank[9]	China EXIM Bank[10]
1. Country Environmental Analysis (CEA)	**1. Country Programming Country Strategy Paper (CSP)**	**1. Preparatory Survey E&S baseline** · Determine if Strategic Environmental Assessment required	**1. Investment Opportunity Identification**		
1. Identification Stage · Project Concept Note (PCN) (includes screening)	**2. Project Identification Stage** · Screening and categorisation	**2. Project Formation** · Screening and categorisation	**2. Project Structuring and Financing** · Identify E&S issues · Bankable feasibility study		
2. Preparatory Stage · Assessment of technical, financial and E&S risks	**3. Project Preparation** · ToRs for Strategic Environmental Assessment or environmental and social impact assessment / ESMP and RAP · Draft E&S studies · Compliance check · Institutional capacity assessment · PCN · Readiness review of PCN	**3. Detailed Plan and Preparatory Study** · Feasibility studies · Site visits · Collection of E&S data · Second screening · ToRs for environmental and social impact assessment · Assessment of country's commitment to E&S studies	**3. Early Review/ Deal Screening** · Identify high level E&S risks and impacts · Categorise project	**1. Loan Application** · Determine status of administrative approvals, e.g. land use, planning, EIA, feasibility study, etc	**1. Project Review and Loan Preparation** · Submission of feasibility study reports, EIA report, · Evaluation of Chinese contractor

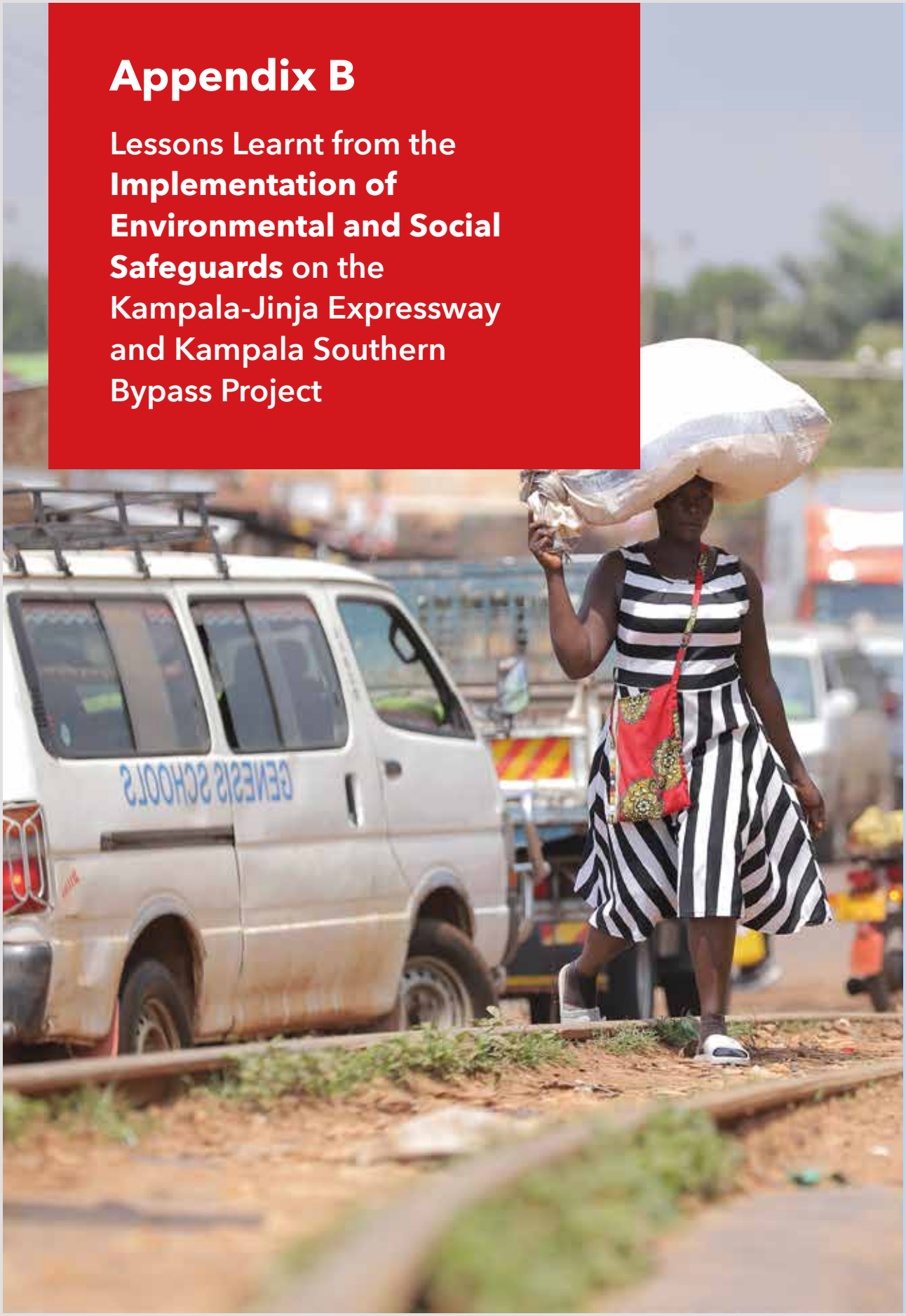
9 - Adapted from Friends of the Earth, 2016. Many of CDB's policies are unavailable to the public. The information in this table is for *domestic* borrowers and it is unknown if the same process is applied for overseas loans due to the lack of public information.
10 - Adapted from Friends of the Earth, 2016. Information in this table is based on China EXIM Bank's Environmental Protection Policy and the Guidelines for ESIAs for the China EXIM Bank's Loan Projects.

World Bank/ KfW	AfDB	JICA	DBSA	China Development Bank[9]	China EXIM Bank[10]
3. Appraisal Stage · Draft Project Appraisal Document (PAD) · Draft legal agreement	**4. Project Appraisal** · Review of E&S studies · Site visit (if required) · Finalise E&S studies · Public disclosure · Integrate summaries of SEA, environmental and social impact assessment / ESMP into Project Appraisal Report (PAR) · Readiness review of PAR	**4. Full-scale Study Stage** · Commission Strategic Environmental Assessment or environmental and social impact assessment · Collect baseline data · *Analyse project alternatives* · Stakeholder consultation and disclosure · Draft and final project reports	**4. Appraisal and Investment Review** · Institutional and legal capacity assessment · Stakeholder review · Project feasibility studies · Profitability and sustainability assessment · Identify KPIs	**2. Loan Examination and Review** · Assess E&S risks · Client suitability review (includes Borrower's environmental violations, environmental policy and legal framework and environmental performance) · An approved EIA report	**2. Project Application** · Loan application from Borrower · Recommendation from Chinese Embassy in borrowing country · Approved EIA report based on local environmental laws and regulations · Final feasibility study
5. Negotiations and Board Approval Stage · Final PAD · Final legal agreement	**5. Loan Negotiations, Board Presentations and Loan Signature** · Draft and final legal agreement	**5. Loan Negotiations**	**5. Board Review and Credit Approval** · *Integrate E&S appraisal findings into credit risk assessment and approval process*	**3. Loan Agreement** · Environmental standards and costs to be included in loan covenants · 'One ballot veto' procedure allows loans to be rejected by the credit committee on basis of environmental reasons	**3. Loan Examination and Review** · Negotiation with borrower to amend project based on EIA · Inclusion of E&S responsibilities in loan contract
			6. Contract Negotiation and Settlement · Agree risk mitigation measures · Obtain client commitment to E&S obligations and compliance		

World Bank/ KfW	AfDB	JICA	DBSA	China Development Bank[0]	China EXIM Bank[10]
6. Implementation and Support · Implementation Status and Results report (ISR)	**6. Project** Implementation and Supervision · Quarterly implementation reports · Implementation Programme and Results Report (IPRR) · Compliance review report	**6. Monitoring Submission of monitoring reports by proponent** · Site visit (If necessary) · Disclosure of monitoring results	**7. Portfolio Monitoring and Funds Disbursement** · Assess compliance with contract (including E&S commitments and permit requirements) · Monitor KPIs · Annual monitoring of client's compliance with safeguards	**4. Post-Loan** · Borrower to provide proof from environmental authorities that project meets environmental protection requirements · CDB may downgrade asset quality or cancel the loan in the event of violation of environmental regulations or safety concerns	**4. Loan Monitoring and Project Implementation** · Inspection and monitoring project construction and operation based on EIA · Regular reporting to China EXIM during construction on E&S impacts · Actions may be taken in the event of environmental non-compliance
7. Completion and Evaluation · Implementation Compliance and Results report (ICR) · IEG evaluation of ICR	**7. Project Completion and Supervision** · E&S Completion report (ESCR) · Project Completion Report (PCR)		**8. Project Evaluation** · Report on E&S outcomes		**5. Post-Loan** · Borrower to provide proof from environmental authorities that project meets environmental protection requirements

Appendix B

Lessons Learnt from the **Implementation of Environmental and Social Safeguards** on the Kampala-Jinja Expressway and Kampala Southern Bypass Project



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List of Acronyms

AfDB	African Development Bank
AVSI	Association of Volunteers in International Service
DBO	Design, Build, Operate
DFI	Development Finance Institution
E&S	Environment and Social
E&SS	Environmental and Social Safeguards
ESAP	Environmental and Social Assessment Procedures (AfDB)
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Mitigation and Monitoring Plan
GHG	Greenhouse Gas Emissions
GKMA	Greater Kampala Metropolitan Area
IFC	International Finance Corporation
ISS	Integrated Safeguard Systems (ISS)
KCCA	Kampala Capital City Authority
KEE	Kampala-Entebbe Expressway
KJE	Kampala-Jinja Expressway
KSB	Kampala Southern Bypass
NEA	National Environmental Act
NEMA	National Environmental Management Authority
NOWO	No One Worse Off
OS	Operational Safeguard (AfDB)
PS	Performance Standard (IFC)
RLRP	Resettlement and Livelihoods Restoration Plan
ROW	Right of way
SEA	Strategic Environmental Assessment
SEP	Stakeholder Engagement Plan
SESA	Strategic Environmental and Social Assessment
SSA	Sub-Saharan Africa
ToR	Terms of Reference
UNRA	Uganda National Roads Agency

Acknowledgements

Many thanks to Sam Mabala of Cities Alliance in Kampala, Uganda, for his assistance in obtaining all the relevant documents and for contacting relevant officials in the Kampala Capital City Authority (KCCA) and the Uganda National Roads Agency. Anita Kusiima of the KCCA Directorate of Physical Planning and Bruce Rukundo of the Directorate of Public Health Services and Environment are thanked for their time to meet me and answer some questions about city planning in Kampala.

I would also like to express my appreciation to Arne Janssen and Julian Baskin of Cities Alliance for reviewing the first draft of this document and for their insightful comments.

1. Introduction

Cities in Sub-Saharan Africa (SSA) are growing at a rapid rate, due to internal growth and in-migration from rural areas. Without access to land or title within the formal city area, the urban poor build makeshift shacks on undeveloped sites, known as informal settlements, which have no formal streets or service delivery and are usually located in areas unsuitable for formal urban development; e.g., on steep slopes, in wetlands, and on riverbanks. These settlements and their informal economies are, thus, more prone to climate change hazards. These challenges are compounded by the development of large infrastructure projects through or adjacent to these informal settlements. The Greater Kampala Metropolitan Area (GKMA) in Uganda exemplifies these challanges.


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The growth of GKMA has been rapid; the city has quadrupled in size since the 1980s. In the period 2002 – 2014, the population grew 3.9% per annum. In the 2016 population census, approximately 4 million people were in the city during the daytime, reducing to around 2 million at night, implying that some 2 million people commute in and out of the city daily. City planning has not kept up with the speed of growth, and the city sprawls outwards in all directions, including up the slopes of the city's 24 hills and into the low-lying wetlands around the edges of Lake Victoria (National Planning Authority, 2019). This growth has caused structural and socio-economic challenges for the GKMA including:

- Poor land tenure systems
- Low levels of physical planning
- Lack of an integrated transport system
- Lack of sustainable environmental management, especially of ecosystem services such as water and air quality
- Development of slums and unplanned settlements; approximately 60% of the population lives in slums in Kampala.
- Spiralling urban poverty, exacerbated by high unemployment levels
- Poor infrastructure for markets, water, housing, and health
- Crime, overcrowding, congestion and pollution (Earth Systems and Atacama Consulting, 2018).

In response to these challenges, the Ugandan Cabinet approved the GKMA Development Framework 2040 in 2013, designed to define micro- and macro-projects for the orderly development of the 839 km^2 metropolitan area and thereby stimulate job creation and economic uplift. Despite this effort, under-employment still stands at 23% and informality accounts for 57% of the city's employed people (National Planning Authority, 2019). The GKMA Strategic Framework 2040 identified five key objectives, one of which was 'Comprehensive Economic Infrastructure Development', with the development of a strategic roads programme being one of the sub-categories. It is appropriate, therefore, to examine how issues such as climate change, urban informality and infrastructure development are addressed on two of the large road sector projects

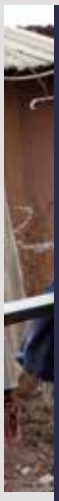
in the GKMA, the Kampala to Jinja Expressway (KJE) and the Kampala Southern Bypass (KSB).[11] These two were assessed in an Environmental and Social Impact Assessment (ESIA) prepared by Earth Systems and Atacama Consulting in 2018.[12]

Most large infrastructure projects in Sub-Saharan Africa, including the KJE/KSB, are funded by international development finance institutions (DFIs), many of which have environmental and social safeguards (E&SSs) in place. The aim of these safeguards is to protect the public, especially the poor, vulnerable and disadvantaged from unequal distribution of costs and benefits, to promote equality, health and well-being of citizens, to protect the environment from damage and to encourage sustainable development. Cities need resilient environmental, social and economic systems that can withstand anticipated shocks and stresses. Therefore, the funding of infrastructure in the urban environment must be planned and implemented in a sustainable manner. **But do these E&SSs work effectively in the context of the urban poor, infrastructure development and climate change? Are they consistent in approach, and adaptable, feasible and practical in the context of informality?**

The KJE/KSB is a Public-Private Partnership Project funded by the International Finance Corporation (IFC) and the African Development Bank (AfDB). The lessons learnt from the ESIA done for the KJE/KSB roads have been used to illustrate whether the national E&S legislation and the international E&S safeguards have been effective in addressing the questions of informality and climate change.

11 - The KJE component of the project comprises 76 km of new, limited access expressway, linking the city of Jinja at the eastern border of Uganda to Kampala. This access will facilitate the movement of international freight from the port of Mombasa in Kenya to Uganda and other land-locked neighbouring countries such as Rwanda, Burundi, DRC and South Sudan. The 18 km KSB component of the road will form part of a greater ring road around Kampala (with the Kampala Northern Bypass) and will link the KJE with the Kampala-Entebbe Expressway. The project is being co-funded by the IFC and AfDB.

12 - The so-called 'reference' ESIA was compiled by Earth Systems and Atacama Consulting in 2018. According to UNRA officials, this document is a reference document, which will form part of the tender documents for the Design, Build, Operate contractor. The contractor will be required to revise and update the reference ESIA report during the final design stage.



2. Methodology and Research Questions

The KJE/KSB ESIA report, which was used to identify lessons learnt in the application of E&S safeguards in the urban context, is a 'reference' document that will be used by prospective contractors in their Design, Build, Operate (DBO) bids. A final ESIA report will be produced following the completion of the final road designs, and this report will be submitted to the National Environmental Management Authority (NEMA) for a Certificate of Approval. This process provides an opportunity for some of the gaps and deficiencies noted during this analysis to be addressed during final designs and the compilation of the next version of the ESIA (see Recommendations in section 4).

In addition to some general references (see References at the end of this paper), the following documents were used as the basis for the analysis.

ESIA by Earth Systems and Atacama Consulting 2018

Volume A: Executive Summary

Volume B: ESIA Report (which summarises the technical appendices)

Volume C: Technical Appendices

2 Surface and Ground Water

7 Consultation Records

9 Socio-economic Baseline

Volume D: Management Plans

Environmental and Social Management and Monitoring Plan (ESMMP)

Resettlement and Livelihoods Restoration Plan (RLRP)

Water Management Plan (WMP)

Stakeholder Engagement Plan (SEP)

Cities Alliance report on Implementing the Resettlement and Livelihood Restoration Plan – No One Worse Off, June 2020.

IFC Performance Standards (PS)

PS1Assessment and Management of E&S Risks and Impacts

PS3 Resource Efficiency and Pollution Prevention

PS4 Community Health, Safety and Security

PS5 Land Acquisition and Involuntary Resettlement

AfDB Integrated Safeguards System: Operational Safeguards (OS)

OS1 Environmental and Social Assessment

OS2 Involuntary Resettlement: Land Acquisition, population displacement and Compensation

OS4 Pollution Prevention and Control, Hazardous Materials and Resource Efficiency

OS 5 Labour Conditions, Health and Safety

Environmental and Social Assessment Procedures (ESAP)

Volume 1: General Guidance on Implementation of OS1

Volume 2: Guidance on Safeguard Issues

Consultation

Vulnerable Groups' Identification and Inclusion in Development

Project Grievance and Redress Mechanisms (GRM)

Resettlement Action Plans (RAP)

Volume 3: Sector Key sheets

Transport Sector: Road Infrastructure

The review of the ESIA focussed on answering the following questions:

- Did the ESIA *process* conform with the (then) Ugandan National Environmental Act, Cap 153 of 1995[14] and with the IFC/AfDB E&S safeguards, regarding the issues of climate change and informality?
- How well did the ESIA report address climate change and issues of informality, and did it meet the requirements of national statutory instruments and the DFI E&S safeguards?
- What was the level of participation of informal residents who will be affected by the project?
- Were any Strategic Environmental and Social Assessment (SESA)-like instruments used in planning for the KJE/KSB roads, given the number of other major infrastructure projects in Kampala at present (>10)?
- Was the cumulative impact on residents and climate change identified, assessed and included in the ESMMP?

Following the desktop literature review, a list of questions was prepared and sent to Samuel Mabala, Country Manager for Cities Alliance in Uganda, to arrange for a meeting with KCCA to discuss some of the issues raised (see Appendix A). Because of the ongoing limitations on travel due to Covid-19, this meeting was held via Zoom on 8th December 2020 with Ms Anita Kusiima of the KCCA Directorate of Physical Planning and Mr. Bruce Rukundo of the KCCA Directorate of Public Health Services and Environment.

13 - This Act was the prevailing legislation when the ESIA was completed in 2018. It has subsequently been repealed and replaced by the National Environmental Act, No 5 of 2019.

3. Findings

The findings from the literature review and the meeting with KCCA officials are framed under the key research questions listed above.

3.1 | ESIA's *Process* Relative to the 1995 Ugandan National Environmental Act, Cap 153, and IFC/AfDB E&S Safeguards

The ESIA *process* adhered to the national requirements pertaining to ESIAs, as set out in the National Environmental Act (NEA), Cap 153 of 1995, which was in force at the time the 'reference' ESIA was prepared, as well as to the process prescribed in the National Environmental Impact Assessment Regulations, Statutory Instrument No. 13/1998. The ESIA report is a 'reference' document, and it has not yet been submitted to NEMA for approval.

The process also followed the steps to be taken by both the IFC and AfDB.

3.2 | Assessment of ESIA Climate Change and Informality Report

Climate Change

The contents of the ESIA report complied with the national EIA Regulations, insofar as it addressed all the issues set out in the Regulations. However, the Regulations were developed in 1998 and do not mention climate change, *per se*. Nevertheless, the National Climate Change Policy, approved by Uganda's Cabinet in 2015, aims to

> "ensure a harmonised approach towards a climate-resilient and low-carbon development path for sustainable development in Uganda."

The Policy proposes the following objectives to achieve the overall goal:

1. Identify and promote collective policy priorities to address climate change
2. Identify and promote actions to enable stakeholders to adapt to climate change
3. Identify and promote control measures related to climate change
4. Identify and promote monitoring, detection, attribution and prediction policy responses
5. Support integration of climate change concerns into planning, decision making and investments in all sectors and at all levels
6. Enable the mobilisation of financial resources to address climate change.

Of these, goals 2, 3 and 5 are of particular relevance to the KJE/KSB project, but it is not clear from the ESIA documents reviewed that stakeholders have been assisted to be more resilient to climate change (goal 2 above), or that the project integrated climate change concerns into the planning, decision-making and design of the KJE and KSB projects (goal 5). However, according to the ESIA report, the construction of these roads will alleviate current high levels of congestion, shorten travel times and make travel more fuel efficient, all of which will result in a reduction in greenhouse gases (GHGs) and thus fulfil goal 3 above. For example, there has been a reduction in carbon dioxide emissions along the Kampala-Entebbe Expressway (KEE) since it was built because of significantly less congestion (pers. comm. B Rutundo). From this analysis, it appears that GHG *mitigation* has been assessed in the ESIA report, but not whether the infrastructure itself is resilient to future climate-related risks. Therefore, the DBO contractors for the KJE/KSB roads are advised to consider the Kampala Drainage Master Plan SEA when formulating their final road drainage designs.

The AfDB's E&S Assessment Procedures (ESAP) clearly state that their key purpose is to improve decision-making and project results by ensuring that Bank-financed operations conform to the requirements of the Operational Safeguards and are sustainable. The ESAP requires environmental, *climate change* and social considerations to be assessed early in the project so that they can be reflected in project selection, planning and design. However, the only guidance provided in the Bank's Integrated Safeguards System (ISS) is on how to do GHG accounting, with nothing about how to conduct a climate risk assessment or the need to adopt a climate-resilient design. It would seem, therefore, that consideration of climate change is restricted to GHG accounting in the AfDB's ISS. The ESIA is, therefore, in compliance with this requirement.

On the other hand, IFC's PS1 states the following:

> "The risks and impacts identification process will consider the emissions of GHGs, the relevant risks associated with a changing climate and the adaptation opportunities…."

Furthermore, PS4 (Community Health, Safety and Security) states that

> "PS4 recognises that project activities, equipment and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to the impacts from climate change may also experience an acceleration and/or intensification of impacts due to project activities."

It goes on to say that it is the Client's responsibility to avoid or minimise the risks and impacts to community health, safety and security that may arise from project-related activities, with particular attention paid to vulnerable groups.

Based on the IFC requirements, as well as the goals of the National Climate Change Policy, one might have expected the ESIA to mention the climate change risks, design adaptations (such as suspension bridges over the wetland, as used on the KEE project), the mitigation measures to minimise the impact of climate change on the project's infrastructure and the cumulative impact of the project, when combined with all the other concurrent developments in Kampala and surrounding areas. Flooding and the potential for soil erosion take prominence in the ESIA, but future potential risks in terms of climate change scenarios have not been described.

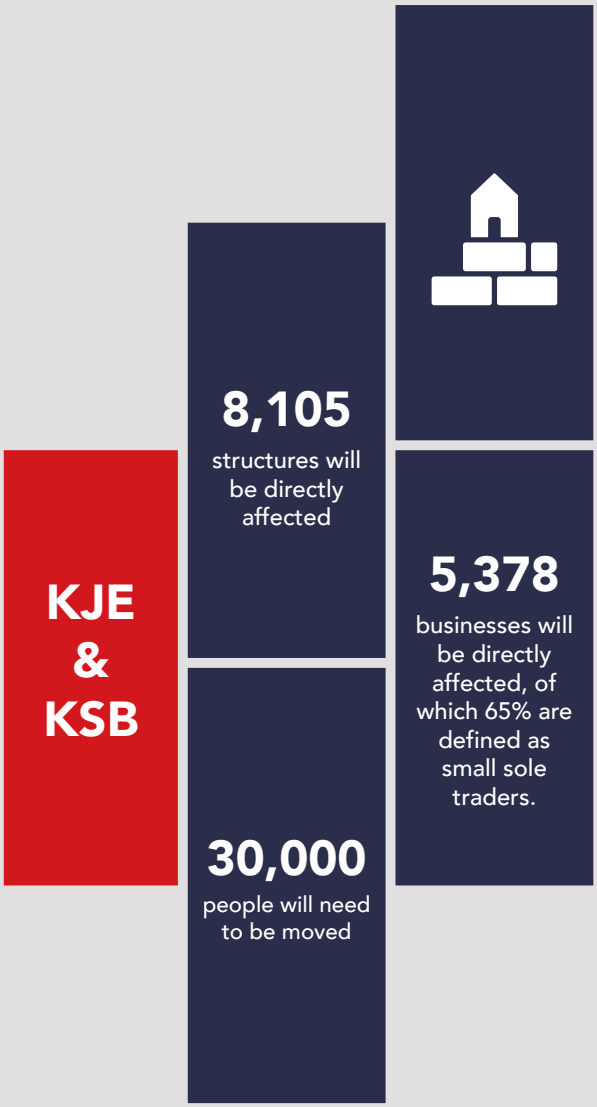
The only issue relating to climate change is found in the chapter on GHG emissions during construction and road operations. The predicted emissions were modelled and found to be of minor negative significance during construction and may even improve under the better driving conditions of the new expressway, as compared to the existing congested road system.

Informality and Resettlement

The consideration of informality of settlements and businesses is extremely well-addressed in the ESIA and should be used as a model for other large urban infrastructure ESIAs on the Continent. Dedicated sections in Chapter 19 of the main ESIA report and in the Resettlement and Livelihood Restoration Plan (RLRP) in Volume D, deal with aspects such as poverty and vulnerable populations; informal settlements and associated development plans; demographic profiles and migration; and building structures and the nature of informal businesses. Over the KJE and KSB projects, a total of 8,105 structures and 5,378 businesses, of which 65% are defined as small sole traders, will be directly affected by the project right of way (ROW). Almost 30,000 people (6,177 households) will need to be moved, 55% of which do not own any title to the land and, theoretically, will not be eligible for compensation under the Ugandan National Roads Agency (UNRA) rules (see below). The impact assessment, mitigation and monitoring plans to address these issues appear to be robust; there are seven key livelihood restoration initiatives planned, relating to:

- Large business and industry transition
- Small business transition
- Agricultural extension
- Community assistance
- Corridor low-cost housing and urban renewal
- Kinawataka sustainable wetland management
- Nakivubo sustainable wetland management.

In order to ensure that the socio-economic aspects of the project and the RLRP met the IFC and AfDB E&S safeguards, a gap analysis was undertaken to compare the DFI requirements with Ugandan legislation and guidelines. The key findings of the gap analysis included:



- Under Ugandan laws, project-affected persons are compensated for the loss of houses and gardens, but they are eligible for compensation only if they have legally recognised rights to the land. However, IFC's PS5 requires that all affected persons should receive full compensation, regardless of their occupancy status.

- IFC PS5 states that economically displaced persons who face loss of assets or access to assets will be compensated for such loss at full replacement cost. In addition to compensation for lost assets, economically displaced persons whose livelihoods or income levels are adversely affected will be provided with opportunities to improve or, at least, restore their means of earning income. However, Ugandan laws do not specify what compensation is to be provided. The most common approach for large capital development projects such as the KJE/KSB projects, is to pay cash compensation, rather than prioritise in-kind provisions.

· Under Ugandan laws, there is no requirement (but it is recommended in PS5) for the provision of supplementary assistance for vulnerable individuals and groups, e.g., the informal sector.

· Under Ugandan laws, there is no requirement for livelihood restoration/improvement and managing resettlement as a development initiative.

· Ugandan legislation does not mention the need for a census of project-affected persons or an asset inventory, which are requirements in OS2 and PS5.

· Ugandan legislation does not mention the need for stakeholder consultation and participation in the resettlement process, which is not the case under OS2 and PS5.

· International guidelines indicate that a cut-off date for compensation eligibility must be defined, but this date is not required in Ugandan legislation.

The RLRP stipulates that the more beneficial measures for the project-affected persons must be adopted and, therefore, since the IFC requirements are more favourable to the affected parties than are Ugandan laws, the IFC requirements for compensation take precedence on this project. This necessity means that those who may be squatters, renters, the most vulnerable residents and small sole traders will also be eligible for additional assistance.

One the major concern associated with projects that take a long time to implement (such as the KJE) is the issue of whether deferred investment by the affected parties is taken into account in the final calculation of compensation. In the case of the KJE road, the issue of deferred investment has been factored in, and the valuations for all properties will be updated prior to compensation being paid.

One of the weaknesses in the ESIA report relates to the impact of resettlement on the receiving environment. Although most project-affected people preferred to receive compensation in the form of cash, some will need a replacement abode and material assistance to compensate for the loss of livelihood. The GKMA has developed a Master Plan for the development of the greater Kampala area, which identified areas beyond the city for resettlement, but the required planning process to actualise these sites has not yet been completed. As a result, the proposed new housing areas have not been identified in the ESIA report, and, therefore, the various impacts of the resettlement plan on the receiving environment and host community are not known.

3.3 | **Informal Residents' Participation Level**

Formal and informal consultations with relevant government authorities, communities and other stakeholders have occurred since 2011, when the original scoping study was done. The stakeholder engagement process undertaken for the 2018 ESIA appears to have been more extensive and thorough, however. Stakeholders were mapped and consulted using a number of different methods appropriate to each group. The ESIA consultants engaged with many of the 30,000 affected households, about 45 large- and small- business owners, more than 36 civil society organisations and more than 20 other NGOs. All levels and tiers of government, army veterans, traditional, cultural and community leaders, communities who may host relocated people and other interested parties were also consulted. Special efforts were made to identify and engage with youth groups, the elderly, the disabled, women and other vulnerable people.

The issues and concerns raised by stakeholders are listed in the ESIA; those raised by community members related primarily to compensation, grievance redress mechanisms, water supply and access. Government and other international and national agencies and NGOs focussed more on issues of design, impact on wetlands and forests, biodiversity, cumulative impacts, the consultation and resettlement process and compensation strategies.

Since the ESIA report was competed, Cities Alliance has been leading a consortium, made up of the Uganda Ministry of Lands, Housing and Urban Development, Slum Dwellers International, the Platform for Vendors Association and the AVSI Foundation, to implement a project that facilitates the smooth relocation of affected communities using global E&S safeguard standards. So far, the project has

14 - The concept of SEA includes the social element, however, AfDB and others tend to use the term Strategic Environmental and Social Assessment (SESA), but the two terms refer to the same tool.

reached 190 vulnerable households (1,282 people, 52% women) out of a target of 300 households in informal settlements who will be displaced by the KJE ROW. The intervention involves identifying and training vulnerable people in business, marketing and financial skills as part of Cities Alliance's KJE No One Worse Off (NOWO) project.

Another intervention by Cities Alliance has been a study on how the KJE will interfere with current levels of access to the Nakawa market and how the road will act as a general barrier to movement. In its final report, Cities Alliance made recommendations to the KJE design team to re-align the road for better access to the market and identified where future pedestrian and non-motorised transport crossings of the Expressway should be located.

These interventions by an NGO underline how important it is to continue the dialogue with affected parties outside of the ESIA process.

3.4 | Strategic Environmental and Social Assessment Instruments Used

At the time that this project was first conceived, and the initial studies were undertaken (scoping in 2011), SEAs[14] were not prescribed in the NEA. This omission was the reason given during one of the stakeholder meetings in answer to questions raised about the cumulative impacts of this project and other planned projects in Kampala. The lack of a SEA was also justified on the basis that NEMA was still working on SEA guidelines. However, NEMA was already developing ToRs for the Albertine Graben SEA in 2010, with the final SEA report published in 2013. This negates the argument that a SEA could not be done for this and other large capital projects planned in and around Kampala. There does not need to be legislation (and regulations and guidelines) in place for a SEA to be undertaken.

However, it is noted that in the new NEA (Act 5 of 2019), Article 47 requires a strategic environmental assessment be undertaken for government policies, plans and programmes initiated or reviewed that are likely to have a significant impact on human health or the environment (e.g., the Transport Development Strategy for the Greater Kampala Area) (Art. 47(1)). Furthermore, a SEA must be carried out for activities in areas where there are likely to be large investments or where cumulative impacts are likely to have a significant impact on human health or the environment (e.g., in the GKMA) (Art. 47(2)). By the end of 2020, the lead agency responsible for the policy, plan or programme (e.g., UNRA) shall, in consultation with NEMA, be responsible for carrying out the SEA in a manner prescribed by regulations, which have just been promulgated (pers. comm. B Rukundo). Unfortunately, this legal provision is probably too late to influence the KJE/KSB proposals.

Even if the national Ugandan legislation did not make SEA mandatory at the time the KJE/KSB projects were being planned, the AfDB's Integrated Safeguards System (ISS) makes SEA a mandatory tool to address the environmental and social issues arising from such large-scale infrastructure programmes. Guidance on SEA was first developed by the AfDB in 2003 and is formally part of the Bank's ISS but it was not applied in the case of the KJE/KSB road infrastructure project.

3.5 | Identifying Cumulative Impacts on Both Residents and Climate Change

Section 21 of the ESIA report assesses cumulative impacts. It describes all the other infrastructure development projects currently in various stages of planning and implementation. The impacts are described in a distinctly qualitative manner, making it impossible to determine how many of the people affected by the KJE/KSB road ROWs will also be affected by the other proposed projects, although it is known that some people have had to be resettled twice (pers. comm. KCCA). No attempt has been made to determine the cumulative effects of all these developments on informal residents, the environment or climate change. Some of the cumulative impacts from multiple developments identified by the KCCA officials interviewed include:

- Drainage from new roads, which can cause erosion and downstream flooding
- Drainage from construction sites leading to erosion and sedimentation of receiving water courses
- Dust and noise
- Exploitation of raw materials (i.e., marram, stone, sand) for construction, which is straining existing quarries and borrow pits surrounding

Kampala, forcing new quarries to be opened, with knock-on environmental and social effects

· Construction traffic causing damage to existing roads

· Parallel developments near each other creating a compound effect on traffic congestion

· Influx of labour

· Resettlement of people (sometimes more than once)

· Costs of compensation

· Impact on livelihoods

· Damage to forests and the natural environment, especially wetlands.

These issues will need to be addressed in the final designs and the final ESIA (see section 4 below).

NOWO PROJECT HAS REACHED

190
Vulnerable households

1,282
People

52%
Women

300
Households in informal settlements

4. Conclusions and Recommendations

4.1 | Conclusions

The conclusions of this case study analysis are presented below under the headings of the research questions posed in section 2.

ESIA Process

The ESIA *process* was sound and largely complied with national and international ESIA requirements.

Consideration of Climate Change and Informality

Other that determining the GHG emissions for the construction and operations phases of the project, the ESIA did not address climate change risks and impacts. It therefore does not comply with the goals and objectives of the National Climate Change Policy, the KCCA Climate Change Action Plan (2016), the AfDB's objectives or the IFC's policies pertaining to climate risks. There is however, an opportunity to address climate change risks and impacts in the final design stage.

Informality is addressed in a comprehensive manner in the ESIA report and appendices, serving as a good example for other urban infrastructure projects. The mitigation and monitoring plans to manage the impact on residents in informal areas/slums and those in the informal business sector appear, on paper, to be robust.

There are substantial differences between Ugandan laws and DFI requirements regarding compensation. The RLRP stipulates that the most beneficial measures for project-affected persons must be adopted; therefore, the IFC requirements for compensation have been followed for this project, providing a good example of how the international E&S safeguards play an important role in ensuring that the lives and livelihoods of the most vulnerable are not seriously compromised.

Stakeholder Engagement

Stakeholder engagement has been conducted well and is continuing through the Cities Alliance NOWO initiative. The ESIA consultants engaged with a large number of affected parties and businesses and adopted appropriate methods of consultation for each group. Special efforts were made to identify and engage with the most vulnerable sectors of society.

Strategic Environmental Assessment and Cumulative Effects

Given that there were more than ten major infrastructure projects ongoing or planned in the GKMA during the last decade, significant, cumulative effects may occur, as noted above. Some of the synergies or inter-dependences of the KJE/KSB project with other planned developments, such as the Bukasa Port, the Bweyogerere Industrial Estate and other roads, are mentioned in the ESIA. The analysis of cumulative negative effects on residents and climate change risks is inadequate, however, leading to a situation in which the use of SEA could have played a major role in high-level planning through the identification of the cumulative effects of multiple projects within the same area over a relatively short period of time. The KCCA recognises the value of SEA for the following reasons:

1. SEA is a process for analysing and addressing the environmental and health effects of proposed policies, plans, and programmes or other strategic

initiatives (e.g., legislation or regulations). It can be applied at all stages and tiers of decision-making. When carried out systematically, SEA will help decision-making in KCCA achieve a number of important environmental objectives and sustainable development aims in line with the KCCA vision.

2. SEA will lead to better environmental protection and management and will promote sustainable development. It will also strengthen the KCCA policies, plans and programmes, thereby providing a number of immediate and longer-term benefits for KCCA. The procedural benefits of SEA in KCCA will include efficiency of the planning processes and improved governance in the organisation.

3. SEA will help to inform and warn the KCCA decision-makers at an early stage about unsustainable development options. Ultimately, this information will save time and money, as problematic options are discarded when few resources have been spent on their development.

4. SEA helps to preserve a healthy environment. Sound application of SEA reduces the need for costly remediation of environmental problems that occur in implementing environmentally problematic strategic decisions. Thus, SEA provides economic, social and environmental benefits to current and future generations.

5. SEA increases overall transparency of strategic decision making, which will help planners and decision-makers create public trust and accountability in the planning process.

6. SEA allows decision-makers to consider opinions of key stakeholders early in the planning process, reducing the risk of deadlock during decision-making on individual projects, such as locally unwanted land use and not in-my-backyard situations.

7. Finally, if properly undertaken and accountable, SEA will enhance KCCA's credibility of policies, plans and programmes <www.kcca.go.ug/strategic-environment-assessment>.

One of the lessons learnt from the simultaneous construction of the KEE and the Northern Bypass in the same area was the need for proper analysis of cumulative impacts and the need for better coordination between all the main stakeholders in planning large projects that are adjacent or near each other (pers. comm. A Kusiima and B Rukundo).

4.2 | Recommendations

The new version of the 'reference' ESIA reviewed in this study presents an opportunity to address some of the shortcomings identified:

· It is recommended that the consultants who will compile the new version of the ESIA should consider the following:

· Updating the document so that all requirements of the new NEA (Act 5 of 2019) are addressed

· The impact of the resettlement and livelihood restoration programmes on the host communities and new areas demarcated for such restoration. These areas need to be identified (in accordance with the GKMA Master Plan) and the potential impact of resettlement in these areas assessed so a relevant ESMMP can be drawn up to manage the negative impacts and enhance the benefits.

· There will need to be extensive consultation with the host communities in the areas mentioned above.

· A climate change risk assessment needs to be conducted to determine the impacts and risks of this project on the environment and the effects of climate change on this project (flooding, erosion, etc.). The consultants are advised to consider the SEA for the Kampala Drainage Master Plan, the Climate Change Action Plan for KCCA (2016) and the Flood Risk Assessment map.

· The objectives and goals of the National Climate Change Policy, 2015, particularly regarding vulnerable stakeholders, need to be integrated into the entire project, including climate-resilient planning, design of structures (based on the above-mentioned risk assessment) and climate-focussed decision-making.

· The cumulative effects of the proposed project on flooding, erosion, loss of wetland functioning and ecosystem services, water quality and the urban poor under various climate change scenarios need to be

modelled and the results presented in the new report.

· The cumulative effects of this project with other adjacent completed/ ongoing/planned large infrastructure projects in the GKMA need to be determined and assessed. A strategic management plan must be developed to ensure that the cumulative negative effects of these projects do not overshadow the benefits.

· Ongoing consultation with interested and affected parties is required, especially with the poor and vulnerable, whose lives may have been 'on hold' during the last ten years.

· It is probably too late for this project and even the GKMA, but a comprehensive SEA would have informed the planning and development of Kampala regarding sustainability principles, climate change and urban development scenarios. SEA is an extremely useful tool, particularly in the urban environment, where several layers of government, a plethora of municipal and national laws and regulations, multiple stakeholders and complex issues are involved.

· The findings of this analysis, as well as the lessons learnt on the World Bank's Uganda Transport Sector Development Project (World Bank, 2017), the Kampala-Entebbe Expressway and other projects need to be conveyed to UNRA so that these issues can be addressed in the final ESIA and ESMMP for the KJE/KSB project.

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World Bank (2017). Role of City Governments in Economic Development in Greater Kampala. Washington, DC, USA.

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List of Questions

1. For the KSB project, it was realised that the displacement of many people would be inevitable due to the high density of the population in the southern parts of Kampala, so a decision was made to minimise displacement *by placing the alignment through the wetlands* (provided that "adequate environmental mitigation measures were employed to prevent further degradation of these ecosystems"). I cannot find anything in the ESIA reports to indicate that climate change issues were factored into A), this decision, and B), the designs for the wetland crossings. What are the climate change scenarios for the Kampala-Jinja region of Uganda? Were the scenarios modelled as part of the detailed road and route design?

2. Climate change is not considered in the ESIA risk assessment, even though erosion and flooding are already a problem—is there another document in which this is addressed? What are the risks *to* the project, and the risks *of* the project on exacerbating the effects of climate change—by itself and together with other infrastructure developments taking place in Kampala (see points 3 and 4 below)?

3. Given that there are at least 10 other major infrastructure projects in the greater Kampala area at various stages of development, it would have been the perfect opportunity to undertake a strategic environmental and social assessment (SESA) at the early planning stages. AfDB advocates the use of SESA for its programmes, but was SESA applied in this situation?

4. I assume that the 10+ large infrastructure projects in Kampala are being funded by different agencies, what was the level of cooperation and coordination by these donor agencies, particularly regarding those people who may be affected by more than one project, and also in terms of the cumulative effects of climate change? Was the same level of E&S safeguards applied to all of them?

5. Were SESAs undertaken for any of the national strategies/plans e.g., the Uganda Vision 2040, the second National Development Plan, the National Transportation Master Plan, Transport Development Strategy for the Greater Kampala Area, the Kampala City Authority Strategic Plan, and the proposed Kampala Physical Development Plan?

6. Were there any lessons learnt from the Kampala-Entebbe Expressway and the World Bank's Transport Development Sector Development Project regarding resettlement, livelihood restoration and climate change that were applied to the KJE? If so, what was learnt and how was it applied?

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