



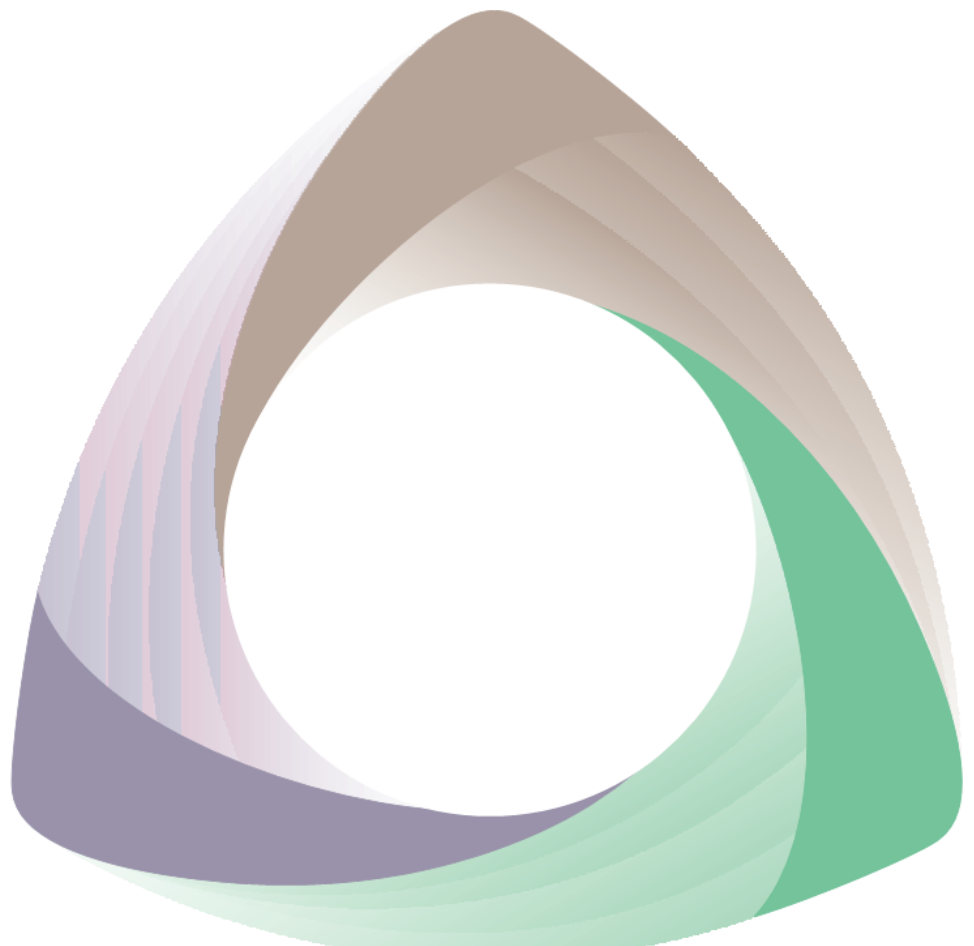
ICED

Infrastructure & Cities for Economic Development

Uganda Construction Capacity Preliminary Assessment:

Key Findings and Recommendations

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Executive Summary

The construction industry is responsible for delivering the critical infrastructure that underpins human well-being and economic growth. The Construction Capacity Framework provides a structured approach to understanding the strengths and weaknesses of the construction industry to identify key areas that should be strengthened to support more effective infrastructure delivery and development outcomes. The construction industry in Uganda has made significant improvements in recent years, particularly through increased investment and development within the roads sector. The wider industry, including multiple stakeholders across public, private and education sectors, have enormous potential to support Uganda's ambitious development objectives, particularly in achieving middle income status by 2020, and developing into a modern and prosperous country by 2040.

In January 2018, the ICED team, led by Joseph Stables and George Ofori, undertook a preliminary assessment of the construction industry in Uganda using the Construction Capacity Framework (CCF) as a means to structure their assessment and reporting. This report summarises the key findings and initial recommendations for the Ugandan construction industry, identifying potential areas for investment in strengthening the industry and supporting Uganda's development goals, and also to inform revisions and recommendations for further development to the CCF. This preliminary assessment focuses on the roads sector and draws technical conclusions about the industry more broadly. It is informed by a number of different stakeholder perspectives and a review of key documents, but does not provide a score or ranking of Uganda's construction industry. The conclusions and recommendations do not attempt to be prescriptive but are intended as objective technical observations. Further consultation would be required to gauge the interest and political capital required to operationalise or implement these conclusions and recommendations.

Uganda's National Development Plan outlines a number of development targets aimed at strengthening the country's competitiveness for sustainable wealth creation, employment, and inclusive growth. These are focused on the roads, energy and rail sectors. There is a confidence in the industry that recent investments in infrastructure provide opportunities to develop the capacity of the local industry and in doing so promote economic growth and improve the quality of life for Ugandans.

Uganda's steady economic conditions are attracting foreign investment, often with associated requirements that lead to international contractors taking on a significant proportion of Uganda's building and infrastructure contracts, and importing labour and materials to deliver it. High interest rates for commercial loans and capacity constraints exacerbate the barriers for local contracting firms to compete, even for small scale contracts. The political environment offers an element of stability, although bureaucratic processes and corruption issues continue to plague the industry, with Uganda ranked 122 out of 190 in the World Bank's ease of doing business scale. Local capacity within the industry is still recovering from the expulsion of people with key skills, knowledge and experience during the 1970's.

With a population of 42 million and an average age of 16 years, Uganda is ranked as the second youngest country in the world, which provides both a large potential employment pool and a challenge to absorb a youthful population bulge. Recent urban migration trends increase stresses on urban centres, with unplanned suburban sprawl a particular planning challenge. Being landlocked, Uganda relies heavily on its neighbours for the flow of resources and is also susceptible to regional instability, having recently welcomed over a million refugees from South Sudan. Its proximity to the Rift Valley make it exposed to earthquakes, and its tropical climate and topography result in regular flooding and landslide events causing damage to infrastructure and injury or death to people.

Although infrastructure projects are increasing in number, volume of investment and complexity, the amount of work being undertaken by the international market is more than 80% and continuing to grow, not just for larger complex projects, but also for small simple contracts including maintenance works, thereby limiting the opportunity for local markets to develop. The 'Buy Uganda, Build Uganda' local content policy is a good start, but could be strengthened to affect local capacity development. Policy and legal frameworks are generally well-established, although there are gaps in implementation and enforcement

due to lack of capacity, procurement and corruption issues. Bureaucratic processes often cause project delays, cost increases and risks of project and organisational failure.

The biggest challenge the industry now faces is how to leverage planned investments to develop the industry in the face of increased competition from the international market. Addressing this problem should be recognised by government and its bilateral and multilateral partners as a national priority. A concerted and properly resourced programme is needed. This should include actors from across the institutional spectrum and be coordinated by Uganda Construction Industry Commission.

A summary of specific recommendations for the Ugandan roads sector and construction industry is provided in the table below, and further detailed in the report and Appendix 4. Priority areas for action are as follows:

1. A new programme building off the successes of the Crossroads programme but with more input from and ownership by industry stakeholders.
2. Support for the Uganda Construction Industry Commission (UCICO) upon its formation to formalise the necessary statutory powers, organisational prestige, qualified personnel and operating resources to be a truly executive agency.
3. Review of the implication of different donor procurement and performance conditions on the ability to mobilise the 30% local content requirements in an effective way which encourages capacity building in the local industry.
4. Review of local skills and knowledge gaps to meet current and future industry needs and alignment of all levels of education, training, and certification to help address the shortfall.

Investment & Business				
CCF Element	Recommendation	Priority to Roads	Priority to Industry	Overall Priority
Factors of Production	Establish plant & operator hire schemes	High	High	High
Commercial Operations	Improve access to credit for local contactors	High	High	High
Commercial Operations	Procure construction by value, not price	High	High	High
Commercial Operations	Enhance transparency and anti-corruption in the construction industry	High	High	High
Investment Profile	Identify and evaluate strategies to promote private investment.	Medium	High	High
Investment Profile	Identify and evaluate strategies to increase domestic revenue collection.	Medium	High	High
Factors of Production	Review the impact of an introduction of a minimum wage	Medium	Medium	Medium
Legal & Regulatory				
CCF Element	Recommendation	Priority to Roads	Priority to Industry	Overall Priority
Law	Revise procurement requirements to support local contractors and consultants	High	High	High
Law	Reduce barriers for land acquisition	High	High	High
Planning Regulations	Prepare neighbourhood plans for urban areas	Medium	High	High
Building Control	Develop strategy for ongoing updates to existing codes and standards	Medium	High	High

Law	Realign tender evaluation criteria with development objectives	Medium	High	High
Building Control	Update material standards to support local sourcing	Medium	Medium	Medium
Law	Create standard form of contract for Uganda	Medium	Medium	Medium
Law	Establish 'green' building certification scheme	Low	Medium	Medium
People & Organisations				
CCF Element	Recommendation	Priority to Roads	Priority to Industry	Overall Priority
Clients	Streamline bureaucratic processes in public procurement	High	High	High
Clients	Ring-fence projects for local contractors	High	High	High
Clients	Reconsider investment specific procurement requirements	High	High	High
Contractors	Improve access to contract opportunities for local contractors	High	High	High
Institutions & Associations	Further support to Uganda National Association of Building and Civil Engineering Contractors	High	High	High
Institutions & Associations	Expand Roads Industry Council to embrace whole industry	High	High	High
Consultants	Amend tender qualification requirements to support local consultants	Medium	High	High
Contractors	Enhance vocational training programmes	Medium	High	High
Institutions & Associations	Form Uganda Construction Industry Commission (UCICO)	Medium	High	High
Consultants	Carry out audit of professional, technician and trade expertise	Medium	Medium	Medium
Contractors	Formalise contractor registration	Medium	Medium	Medium
Civil Society	Better community involvement	Medium	Medium	Medium
Civil Society	Develop asset management handover strategy	Low	Medium	Medium

Introduction

1. Background

The construction industry is responsible for delivering the critical infrastructure that underpins human well-being and economic growth. In this context, construction projects need to be appropriately planned, designed, built, operated and maintained to enable countries to achieve their development aims, including their objectives under the Sustainable Development Goals, Sendai Framework, Paris Agreement, and New Urban Agenda. However, the reality is that in many countries there are limitations in capacity (of people and institutions and the provision of materials and equipment), procedures (legal and regulatory) and the operating environment (including access to finance).

The Construction Capacity Framework

The Construction Capacity Framework¹ (CCF) provides a structured approach to understanding the strengths and weaknesses of a country's construction industry to identify key areas that should be strengthened to enable more effective infrastructure delivery and development outcomes. The key elements comprising the industry can be broadly arranged into three pillars covering the capacity of people and organisations to undertake their responsibilities effectively, the institutional and regulatory environment which supports the industry, and access to finance – see Figure 1.

The CCF has been designed to support line ministries or government departments, donor bodies supporting government capacity-building programmes, or industry development agencies to understand the construction industry landscape, identify strengths and weaknesses and inform investment decisions to strengthen key areas within each of the three pillars.



Figure 1 ICED Construction Capacity Framework

¹ ICED Construction Capacity Framework, October 2017, Draft

Preliminary Assessment in Uganda

The construction industry in Uganda has made significant progress in terms of capacity building and performance improvement in recent years, particularly in the roads sector². The wider industry, including multiple stakeholders across public, private and education sectors, have enormous potential to support Uganda's ambitious development objectives, particularly in achieving middle income status by 2020, and developing into a modern and prosperous country by 2040³. Uganda is currently investing significantly in building and infrastructure programmes which presents a golden opportunity for job creation and inclusive growth, whilst enhancing the built environment to support a better functioning society. There are significant challenges that currently inhibit efforts to take full advantage of these opportunities to grow and develop society and the economy through the construction industry.

2. Purpose of this Report

This report summarises the key findings and initial recommendations from the preliminary assessment of the construction industry in Uganda, identifying potential areas for investment in strengthening the industry to more effectively support the country's development aims.

The specific objectives are to provide investment decision makers with a preliminary country-level technical assessment of the capacity of the construction industry, with a focus on the roads sector, with recommendations for future programming, relating to both:

- investments in strengthening the construction industry, and
- how limitations in the construction industry might negatively impact the implementation of infrastructure projects and development programmes

This report will also inform revisions of, and recommendations for further development to the CCF based on the effectiveness of its application in Uganda and provides a case study to complement the CCF. Key lessons related to the application of the CCF are provided in Appendix 2.

3. Scope of this Report

In Uganda, the roads sector represents the largest proportion of investment in the construction industry by the public sector in recent years, and provides the entry point and focus for this assessment. Many of the key stakeholders in the roads sector are also active in other sectors of the construction industry and many of the challenges are similar. Observations and recommendations relating to the broader context and construction industry as a whole are provided where relevant. As defined by the CCF, the construction industry considers stakeholders and processes across the infrastructure development cycle, from planning through to design, construction and asset management.

This report is structured by using the CCF with an initial section looking at the Ugandan context through the economic, political, sociocultural, and physical lenses; followed by assessments of the Investment & Business environment, the Legal & Regulatory environment and the capacity of People & Organisations.

4. Limitations of this report

The assessment was conducted over a 4-week period, with a one week visit to Kampala – therefore it is described as a preliminary assessment, with further targeted studies required as outlined in the recommendations. It is acknowledged that the scope is holistic and the audience is broad, and therefore there may be specific important issues which were not possible to examine in detail within the scope of this

² For example through targeted government investment in roads, complemented with technical assistance programmes such as the DFID Crossroads programme.

³ Uganda Vision 2040, National Planning Authority, 2007

assessment, and may benefit from additional targeted assessments; for example gender and inclusion safeguards, informal economy and informal jobs, and climate change. The report is primarily a technical assessment and does not capture the depth and complexity of the Ugandan political environment. Further consultation would be required to gauge the interest and political capital required to operationalise or implement the reports conclusions and recommendations.

This report does not provide a score or ranking of Uganda’s construction industry, it provides a qualitative understanding of the strengths and weakness and provides prioritised actions for addressing them. Further development of the CCF is needed to enable a quantified evaluation, see Appendix 2.

5. Research Approach

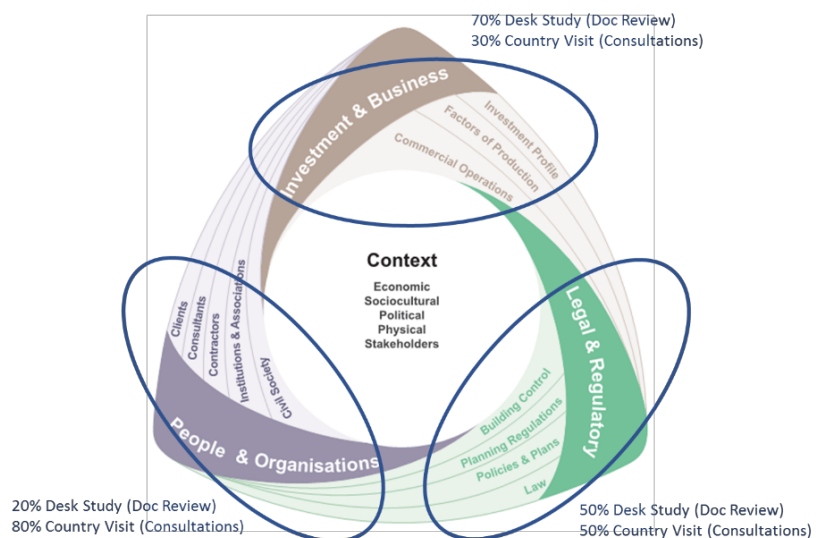
The findings and recommendations provided in this report are primarily based on the views expressed by a variety of stakeholders across the construction industry in consultations carried out in Kampala, and supported by a review of key input documents. Consultations were carried out on an anonymous basis, with information provided verified through other consultations or document reviews.

This preliminary assessment in Uganda adopted the CCF approach and methodology which included three components. Figure 2 shows the relative contribution of consultations and document reviews to the findings within each pillar:

1. **Desk Study (2 weeks)** – Data collection and document reviews, focussing on an analysis of the political, sociocultural, economic, and physical context which relate to the construction industry. A document reference list is provided in Appendix 3.
2. **Country Visit (1 week)** – Two ICED consultants visited Kampala for one week to carry out multi-stakeholder consultations to collate a variety of perspectives and opinions from public, private, education sectors and civil society. Consultations were held either with individuals or small groups of stakeholders. Consultations were carried out using the CCF and informed by the “considerations” in the CCF (see Figure 3) with the aim of speaking to organisations and people with experience in each of the pillars. The country visit also included a visit to construction sites along the Northern Bypass Highway.

Reporting (2 weeks) – Analysis of country visit, desk study findings and preparation of summary report for Uganda stakeholders.

Figure 2 Uganda preliminary assessment research approach



Pillars	Elements	Considerations
Investment & Business	Investment Profile	Financing
		Funding
	Factors of Production	Equipment & Materials
		Labour
		Escalations & Inflation
	Business Environment	Cash Flow
		Payment & Transfers
Insurances & Bonds		
Fraud Prevention		
Legal & Regulatory	Planning Policy	National Planning Policy
		Regional and/ or Local Planning Policy
		Development Plan
	Planning Regulations	Land Use Plans
		Processes
		Codes and Standards
	Building Control	Quality Management
		Materials
		Health & Safety Regulations
		Social and Environmental Management Regulations
	Law	Land Law
		Procurement Law
		Registration & Licencing
Contracts & Enforcement		
People & Organisations	Clients	Owner / Developer
		Donor / Sponsor
		Government
	Consultants	Project Manager
		Architect
		Engineer
		Finance
		Lawyer
	Contractors	Main contractor
		Sub-contractor
		Suppliers & Manufacturers
	Institutions & Associations	Statutory Agencies
		Professional Institutions
		Trade Associations & Unions
		Academic & Training Institutions
Civil Society	End Users & Affected Communities	
	Facilities / Asset Managers	

Figure 3 CCF Pillars, Elements, and Considerations which structured the approach and analysis

Uganda Context

Uganda's Vision 2040 is for "a transformed society from a peasant to a modern and prosperous country" with a per capita income of US\$9,500. The National Development Plan II 2015 (NDPII) builds on the achievements since NDPI initiated in 2010, and outlines a number of short- and medium-term targets to support this aim that include achieving middle income status by 2020 by strengthening the country's competitiveness for sustainable wealth creation, employment, and inclusive growth. Specific infrastructure targets include: doubling the paved road network, doubling rail freight, doubling access to electricity and responding to a seven-fold increase in demand for electricity. Other targets include increasing productivity, tripling the amount of manufactured exports (as a percentage of total exports), enhancing human capital development, and strengthening mechanisms for quality and service delivery, including improvements in the corruption perception index.

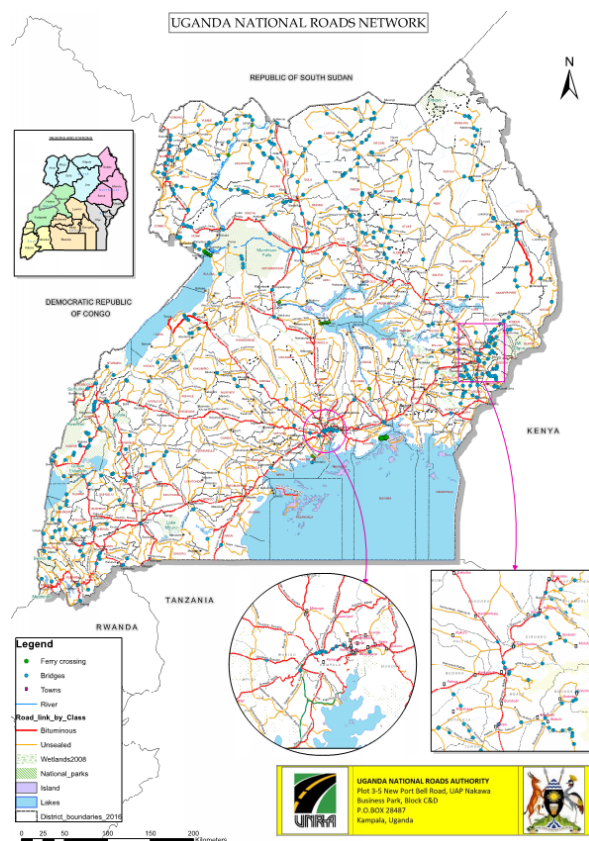


Figure 4 2017 road network showing 4,500km of paved road planned to double in the next 5 years and quadruple to 21,000km by 2040⁴

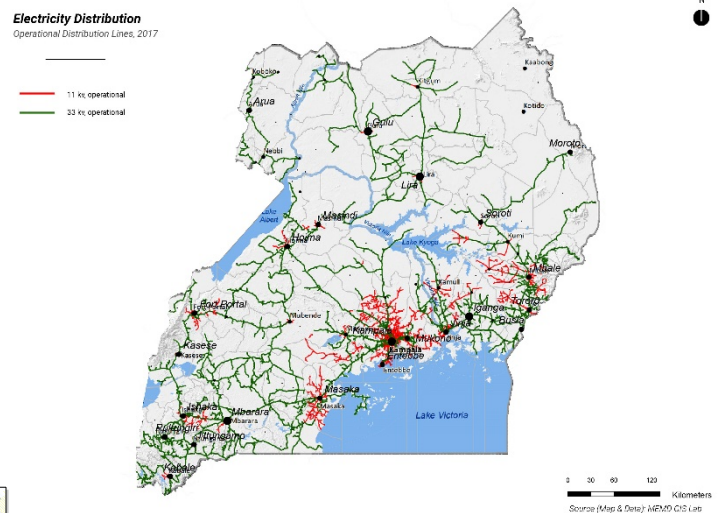


Figure 5 2017 maps showing electricity distribution network planned to double in next 5 years

Efforts towards attaining these ambitious development goals are underway with significant ongoing investments in roads, dams, and the oil and gas sectors, and key achievements since 2010 in poverty reduction, mortality rates, power generation and distribution, and paved roads. Significant investment in infrastructure provides two opportunities: 1) to enhance the quality and effectiveness of the built environment to support societal functions and enable economic growth, and: 2) to use the infrastructure development activity itself as a vehicle to stimulate economic and societal growth through job creation and skills development.

⁴ Displayed as 'current network' on UNRA website: <https://www.unra.go.ug/en/about/network/national>

It is the role of the construction industry to take advantage of these opportunities to support Uganda's development agenda. This has been recognised in the 2010 Ministry of Works and Transport Policy for Development and Strengthening of the National Construction⁵ Industry which presents a number of findings and planned actions, many of which correspond to findings and recommendations in this report, and some of which are currently being addressed. A priority action to establish a Uganda Construction Industry Commission (UCICO) is currently being approved by parliament, and is necessary to take responsibility for coordinating and monitoring other actions.

1. Economic

Uganda is a low-income country with per capita income of USD1,790 (Purchasing Power Parity, current USD), and average growth of 3.2% over the past decade. Inflation has dropped considerably in recent years and appears to be relatively stable around 4.5%, however, net Gross Domestic Product per capita growth remains low at around 1.5%⁶, which will need to increase if Uganda is to achieve its goal of USD9,500 per capita by 2040. Income inequality is growing⁷ with a GINI index of 0.45 which puts it 17th worst in Africa. Unemployment is low at around 3.8% but youth unemployment remains a problem, with 18-30 year olds representing 83% of unemployed but only 18.4% of the population⁸.

Poverty has declined in Uganda from 31% in 2006 to 20% in 2013 but the spread of poverty remains uneven across the country; 84% of Uganda's poor live in the Northern and Eastern regions, reflected in fewer assets and more limited access to services and infrastructure⁹. This limited access to infrastructure maintains a cycle of reduced access to markets, reduced education and employment opportunities and high levels of poverty. In urban areas, 60% of the population are estimated to live in slums or informal settlements¹⁰ which indicates a large population living without access to safe, reliable and well-managed infrastructure services, affecting their economic participation as well as safety and dignity for women and girls.

The agricultural sector accounts for 25% of GDP and 80% of exports¹¹ and provides the main source of jobs outside of the urban centres. The economy is characterised by large numbers of micro and small businesses operating primarily in the informal sector and employ around 80% of the Ugandan workforce. Some 31% of the government's 2016/17 budget was allocated to infrastructure with the majority (80%) allocated to roads and energy¹².

With favourable tax conditions for foreign investment (for example, there is no value-added tax (VAT) on donor-funded projects and no additional tax on imported goods), comparatively low wages (for example, there is no minimum wage), and a liberal monetary policy allowing easy flow of currency in and out of the country, Uganda is attracting increasing foreign investment which averaged USD806 million over the last decade.¹³

⁵ Policy Development and Strengthening of the National Construction, Ministry of Works and Transport, 2010

⁶ World Bank DataBank, Country Profile, available here:

<http://databank.worldbank.org/data/reports.aspx?source=2&country=UGA>

⁷ Oxfam, 'Who is growing? Ending inequality in Uganda'

⁸ World Bank DataBank Country Profile, available here:

<http://databank.worldbank.org/data/reports.aspx?source=2&country=UGA>

⁹ <http://www.worldbank.org/en/country/uganda/brief/uganda-poverty-assessment-2016-fact-sheet>

¹⁰ International Housing Association

¹¹ CIA World Factbook: <https://www.cia.gov/library/publications/the-world-factbook/fields/2089.html>

¹² Ministry of Works and Transport, Ministerial Budget Policy Statement FY 2016/17

¹³ World Bank DataBank, available here: <http://databank.worldbank.org/data/reports.aspx?source=2&country=UGA>

congested urban centres. These trends suggest a growing demand for infrastructure that presents a key challenge for the construction industry to meet.

Uganda is 84% Christian and 14% Muslim. There are many ethnic groups, Baganda being the largest at 16.5% of the population.¹⁷ English is the language predominantly used for business, although Swahili and other local languages are also used, particularly outside of the urban centres. The diversity of ethnicity and language can result in some local tensions and make it difficult for business or contracting activities to operate at national scale.

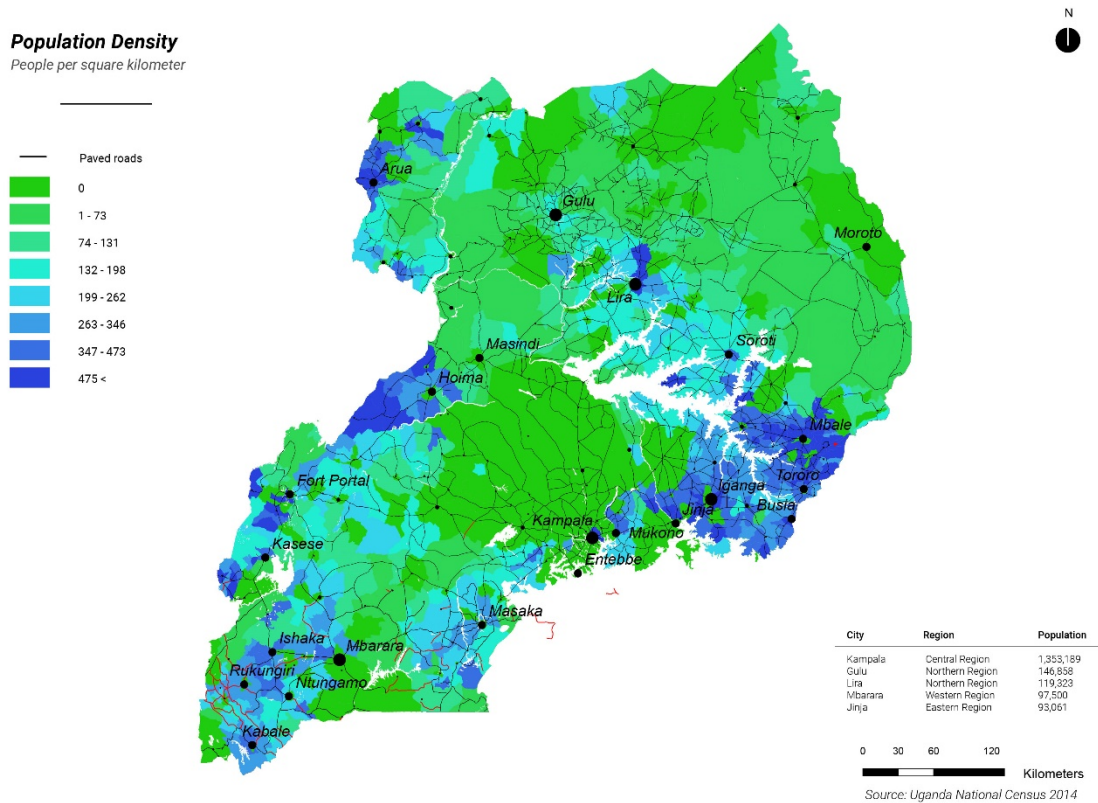


Figure 7 Population density map of Uganda showing clustering population all along the western border, around Lake Victoria, and along the Nile towards Gulu

¹⁷ National Population and Housing Census, 2014

4. Physical

Uganda is a landlocked country bordering South Sudan, Kenya, the Democratic Republic of Congo (DRC), Tanzania, and Rwanda. It relies on overland flow of resources across neighbouring countries, particularly Kenya and Tanzania. Uganda is currently planning to construct standard gauge rail lines to link to the expanding network across east Africa to improve the trade infrastructure. There are risks associated with neighbouring economic instability and civil unrest. For example, in the last six years, Uganda has provided refugee status to more than one million South Sudanese.

Uganda's tropical climate supports a thriving agricultural industry. Uganda lies almost entirely within the Nile basin and is susceptible to flooding and landslides, causing economic losses and fatalities. Uganda's location between two arms of the East African Rift Valley make it prone to earthquakes, particularly in the west, see Figure 8. There are regular tremors in this area, with the most significant recent earthquake recorded in 1994 when a 6.2 magnitude earthquake killed eight people and caused USD61 million damage.¹⁸ With rapid increases in development needed, particularly in the higher seismic hazard areas, permanent buildings should be designed and built appropriately to avoid escalating the risk of higher death tolls, and worsening economic and development impacts.

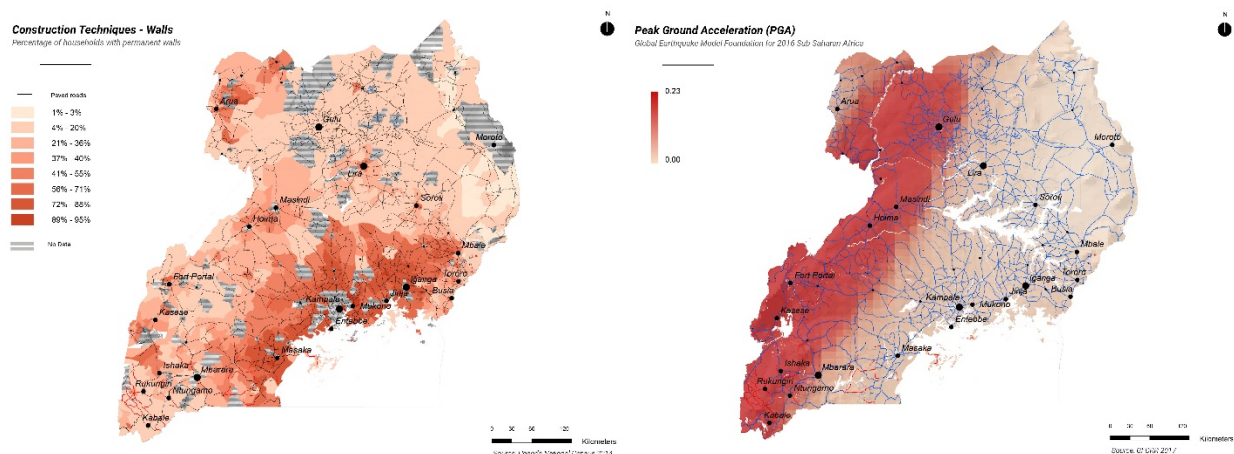


Figure 8 The left hand map shows the percentage of households with permanent walls, illustrating the relative lack of development the western border and likely increase in development in this area when comparing the population density in Figure 7. The Peak ground acceleration map indicates the increased earthquake hazard in this same area and the need for seismic design to be embedded the built environment development.

¹⁸ <http://www.monitor.co.ug/News/National/Earthquake-shakes-Fort-Portal-town/688334-2506098-i7ub6w/index.html>

Key Findings & Recommendations

1. Investment & Business

Infrastructure investment has increased significantly over the last ten years as gross capital formation has risen three-fold¹⁹ and is now the largest sector of government spending at approximately USD1.4 billion per year. However, public finance is crowding out private investment²⁰ and according to consultations more than 80% of the work is undertaken by international consultants and contractors, thereby limiting the opportunity for local markets to develop.

Investment & Business	Investment Profile	Financing
		Funding
	Factors of Production	Equipment & Materials
		Labour
		Escalations & Inflation
	Business Environment	Cash Flow
		Payment & Transfers
		Insurances & Bonds
		Fraud Prevention

Figure 9 CCF considerations for Investment & Business

Investment Profile

Uganda has three primary sources of revenue: taxation, debt financing and donor. It can be assumed that donor funding will decline. Debt financing is viable as the central government's debt to GDP ratio is approximately 30% with a B2 sovereign credit rating (Moody's) and 10 year bond interest rates of approximately 16%.²¹ However, the interest rates discourage debt financing. Improved interest rates would be available for project specific bonds if project preparation was successfully conducted and domestic revenue collection could be increased from an average of 11.4% of GDP over the last decade²². The bulk of the required investment in infrastructure must be funded by domestic taxation. The Ugandan Development Bank was established to provide loans and guarantees to support priority sectors of the economy and partner the National Development Plan but faces a variety of institutional challenges. Encouraging signs can be seen from the Kampala Capital City Authority (KCCA), which increased revenue collection by 89% between 2010 and 2015 and achieved a credit rating of A-.²³ Similarly, the allocations for road maintenance works made from the GBP90million Uganda Road Fund is derived from fuel levies and other road-related charges.

The dominance of the public sector has crowded out private investment, which is an area of serious concern. The government is the main client of the construction industry with approximately 36% of government spending on infrastructure of which more than two thirds is allocated to the Department of Works and Transport, which focuses mainly on roads – see

²⁴

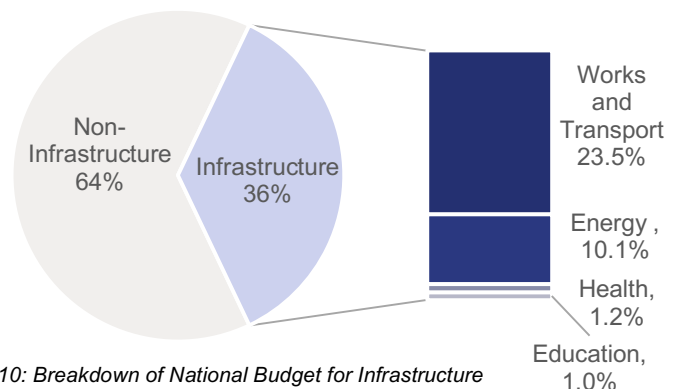


Figure 10: Breakdown of National Budget for Infrastructure

¹⁹ World Bank DataBank Country Profile

²⁰ UK Department for International Development, 2015; Uganda: Inclusive Growth Diagnostic 2015

²¹ International Monetary Fund, 2015; Uganda: Fifth review under the policy support instrument and request for waiver of an assessment criterion and modification of assessment criteria – Debt Sustainability Analysis, available at: <https://www.imf.org/external/pubs/ft/dsa/pdf/2015/dsacr15321.pdf>

²² http://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS?year_high_desc=false

²³ Coalition for Urban Transitions, 2017, Financing The Urban Transition: How Uganda Can Unlock Sustainable Urban Infrastructure Investment

²⁴ <http://www.budget.go.ug/#national-budget>

Apart from the government’s own funds collected through tax revenues, bilateral and multinational development partners provide up to 60% of infrastructure funding²⁵. International funding has different conditions and procurement requirements depending on the source and this affects how projects are implemented. In response, the construction industry must seek to promote private investment through a more robust project pipeline, consider credit guarantee schemes, and by streamlining the Public Private Partnerships (PPP) process, which has recently been given a legal framework by the Public Private Partnerships Act 2015. The Uganda Investment Authority (UIA) was set up under the Investment Code 1991 as a semi-autonomous agency to initiate and support measures that enhance investment in Uganda and advise the government on policies conducive to investment promotion and growth. It serves as a one-stop agency for investors.

CCF Element	Recommendation	Priority	Key Stakeholders
Investment Profile	Identify and evaluate strategies to promote private investment These may include a more detailed and accurate project pipeline, credit guarantee schemes, and enhanced PPP procedures.	High – short term impact	UIA
Investment Profile	Identify and evaluate strategies to increase domestic revenue collection These may include expanding the tax base, applying user fees, and improving enforcement.	High – short term impact	MoF

Factors of Production

Current government investment in low-technology, labour-intensive infrastructure, such as roads, provides a strong platform for job creation to support the large labour pool.

Access to plant and equipment is one of the major challenges for construction firms in Uganda. Qualified and experienced operators of equipment are also scarce. Under the CrossRoads programme, funded by DFID, these two needs were addressed at a pilot scale, which resulted in more than 60 plant operators trained and now employed by the Uganda National Roads Authority (UNRA).

There is no minimum wage in Uganda which results in comparatively low wages. This attracts foreign investment into Uganda, but may also result in people stuck in a poverty trap, less motivated in their job, no capacity for self-investment, and increases wealth inequality, ultimately inhibiting economic growth.

The Uganda Bureau of Statistics²⁶ provides a good cost monitoring service, responsible for tracking and publishing construction costs and price indices.

CCF Element	Recommendation	Priority	Key Stakeholders
Factors of Production	Establish plant & operator hire schemes Access to plant and skilled operators is preventing local contractors from procuring construction contracts. UNRA have recently purchased USD500 million of road construction plant and currently	High – short term impact	UNRA MoWT

²⁵ Current World Bank loans include: US\$243 million for the North East Corridor project; and US\$188 million for the Second Kampala Institutional and Infrastructure Development Project.

The African Development Bank is also provided some loans.

The UK Department for International Development (DFID) has a budget of US\$364 million for Uganda.

The EXIM Bank of China has provided funds for many projects in Uganda, including the US\$2.9 billion Malaba to Kampala Railway; and US\$1.4 billion for the Karuma Hydropower Dam.

²⁶ Uganda Bureau of Statistics (2017) Construction Sector Indices August to September 2017.

	employ more than 60 operators (trained through the Crossroads programme). A plant and operator hire scheme should be introduced at district or municipal level to remove this barrier for local contractors across the country. This could be initiated by UNRA making use of existing equipment and operators to support local contractors.		
Factors of Production	Review the impact of an introduction of a minimum wage The introduction of a minimum wage would have both positive and negative impacts on the economy in both the short and long term. It is recommended that a review is carried out to ascertain the feasibility of the introduction of a minimum wage and its appropriate level.	Medium – medium and long term impact	MoF UNABCEC UIPE

Commercial Operations

Access to finance is a critical issue inhibiting the efforts of local contractors to build capacity and compete with international contractors for construction contracts. With the rate of interest for lending at 22-24%, and onerous guarantee requirements and performance and bid bonds, the cost of accessing credit is prohibitively high. The CrossRoads Guarantee Fund (with a budget of USD3 million) assisted the industry in easing the access to credit by underwriting defaults. While the impact of this programme was relatively small, due to the value of the fund in relation to the total investment in infrastructure, the stakeholders consider it to have been effective at opening opportunities for local contractors, and the industry hopes it can be expanded, but with more local contractor input into its development – “the local industry needs a leg up and the success of the CrossRoads project shows that given the opportunity, they would perform” said one consultee.

Government procurement generally results in low-cost bidding, which squeezes fees and margins, bringing significant risk to the project, but also adversely affecting the ability of contractors to reinvest to build their own capacity. This particularly affects the consulting and management fees, resulting in poor planning, design, and construction management. A consultee describing the practices of foreign firms said, “Their quotations are low. They are squeezing out the local contractors and the consultants suffer with only 5% of the contract value – it is not enough for a quality design”.

Delays to payments for work done on public projects constitute a major challenge to contractors. It is leading to severe difficulties for companies, including loss of pledged property, project failures and corporate failures, as well as having a crippling effect on the local market to build its own capacity. This has a knock-on effect on staff, sub-contractors, and suppliers. While there are requirements within government departments to have funding in place prior to instructing works, there are two main causes of payment delays: 1) onerous donor conditions to be satisfied prior to releasing funds, and; 2) heavily bureaucratic government processes to approve contracts, contract changes, and payments.

Uganda is ranked 151/176 for corruption with a score of 25%²⁷, and there have been reports of corruption on public construction projects. For example, the Uganda National Roads Authority (UNRA) faced a USD12 million embezzlement scandal in 2012 after which many international donors withdrew financial support. One consultee said that since the scandal “there is still some corruption, but it has been much reduced”. The Construction Sector Transparency Initiative (CoST), a country-run multi-stakeholder initiative which aims to reduce corruption and mismanagement on public projects by disclosing information on key aspects of projects, operates in Uganda. It covers the projects of a few procurement entities, but could have a more significant contribution with wider dissemination and buy in across the industry.

²⁷ <https://www.transparency.org/country/UGA>

CCF Element	Recommendation	Priority	Key Stakeholders
Commercial Operations	<p>Improve access to credit for local contractors</p> <p>Access to credit, and to the necessary bonds is one of the most critical problems facing the local construction firms in Uganda. The results of the CrossRoads programme, in which there was no default among beneficiaries of the guarantee fund show that contractors are a reasonable business risk. An extension of the CrossRoads programme to accommodate the broader construction industry would be beneficial. Further development of this programme should be made in collaboration with the contractors' association, UNABCEC, and other stakeholders to make it more accessible and more effective.</p>	High – short, medium and long term impact	MoWT, DFID, UNRA, Abi-Finance, UNABCEC
Commercial Operations	<p>Procure construction by value, not price</p> <p>The main decision criteria in the procurement of construction projects should be changed from price to the concept of value for money. The factor of quality, which includes quality, health and safety and environmental performance, could be introduced as a component of the set of yardsticks which guide decision making in the procurement of public projects.</p>	High – short, medium and long term impact	Clients
Commercial Operations	<p>Enhance transparency and anti-corruption in the construction industry</p> <p>Corruption was mentioned by many of the stakeholders as a bane of the construction industry in Uganda. Programmes such as the Construction Industry Transparency Initiative (CoST), can help to address the situation. CoST Uganda, can be extended to include projects of all major public procurement agencies. A statutory disclosure requirement can also be introduced, to require project information to be released into the public domain. A suitable communication platform could be developed to be the depository of the disclosed information.</p>	High – medium and long term impact	All stakeholders

2. Legal & Regulatory

Policy and legal frameworks are generally well-established, although there are gaps in implementation. Bureaucratic processes are onerous and often cause project delays, cost increases and risks of project and organisational failure. The local content policy is a good start, but could be strengthened to have an impact on local capacity development.

Legal & Regulatory	Planning Policy	National Planning Policy
		Regional and/ or Local Planning Policy
		Development Plan
	Planning Regulations	Land Use Plans
		Processes
		Codes and Standards
	Building Control	Quality Management
		Materials
		Health & Safety Regulations
		Social and Environmental Management Regulations
	Law	Land Law
		Procurement Law
		Registration & Licencing
Contracts & Enforcement		

Figure 10 CCF considerations for Legal & Regulatory environment

Planning Policy

Uganda's Vision for 2040 provides the aims for the National Development Plans, which feed into local development planning and inform budget allocations. The National Development Plan II 2015 outlines specific targets for infrastructure to 2020. These are currently being implemented through a number of different programmes and investments, with a focus on addressing at least half of the 500km per year road construction target. Other planned projects include bridges and overpasses, three major dams, a standard gauge railway line, and a gas pipeline. This released pipeline of planned projects provides hope for the industry to develop through these opportunities. The housing sector provides a significant challenge due to mass urban migration and rapid rate of informal construction around urban centres. This has been recognised in Uganda's 2016 housing policy,²⁸ which aims to promote an efficient and effective housing delivery system for all income groups.

Planning Regulations

Under Ugandan law, the whole country is a planning area, and strategic land use zoning plans exist for urban areas. More detailed neighbourhood plans do not yet exist (although KCCA are planning to prepare these, funding permitting), making planning reviews of proposals, approvals, and enforcement challenging. Neighbourhood plans are essential to support the planning process and to engage communities to support enforcement through a sense of collective ownership. A consultee described it as "The industry in Uganda is largely informal, especially in the rural areas. The plans are not approved; it might be a nice building but there are no integrated plans".

Planning processes are clear, and the role of community consultations is clearly embedded throughout the planning process but the lack of neighbourhood plans undermines decision-making at both local government and community level. Urban sprawl is an increasing problem with informal settlements expanding around urban centres, often with little or no planning, in low lying wetland or environmentally sensitive locations. Moreover, enforcing planning regulations can be a challenge, as one consultee said, "People know they can get away with it, knowing we are limited on the ground, in terms of capacity".

Uganda's building sector is categorised into residential, non-residential and road civil works. It is growing rapidly with the number of residential building structure plans submitted, approved and issued growing faster than any other categories. In 2008, 55% of plans submitted were residential compared with 27% commercial building plans and 18% industrial and institution plans. The current housing need is estimated at 6.4 million housing units whereas the housing stock stands at 5.7 million housing units. The total national backlog is 0.7 million housing units. Urban areas have 0.76 million housing units with a backlog of 0.168 million units.²⁹

²⁸ Ministry of Lands, Housing and Urban Development (2016) The Uganda National Housing Policy.

²⁹ <http://www.monitor.co.ug/Magazines/HomesandProperty/Delaying-building-law-taking-effect/689858-3292342-tnd98qz/index.html>

CCF Element	Recommendation	Priority	Key Stakeholders
Planning Regulations	Prepare neighbourhood plans for urban areas The lack of detailed physical planning, to supplement the existing broad structural plans for the cities is hindering efforts to prepare, scrutinise and approve development proposals at the local level. The current initiative to prepare detailed plans in Kampala should be supported and could be extended to other cities and urban areas in Uganda.	High – short, medium and long term impact	KCCA

Building Control

Codes and standards are generally customised from international best practice but rarely updated and can be up to 30 years old. They do not generally include vernacular construction such as masonry and earth based construction. There is a seismic code, but it is generally only applied to buildings over four stories tall which leaves lower rise buildings and occupants at risk, especially around rapidly developing urban centres in the west of the country where the seismic risk is greater. The building code is planned to be updated in 2018 in response to the National Construction Policy 2010 and subsequent building collapses in Kampala.³⁰ The Environmental Impact Assessment (EIA) Act requires an EIA to be undertaken for all significant construction projects in Uganda. Building control and quality and environmental management can be undermined by lack of capacity for implementation and enforcement.

Local material standards exist, but international contractors prefer to use international standards which results in a large proportion of materials being imported. Many materials could be supplied locally, by strengthening local material standards and accommodating them in designs instead of international standards. Currently cement production exceeds demand and is exported to South Sudan and DRC while international contractors import some types of cement for road and dam projects. There is also potential to increase iron and steel production, but it is mostly being imported from China, Kenya and South Africa.

CCF Element	Recommendation	Priority	Key Stakeholders
Building Control	Update material standards to support local sourcing The lack of development of Uganda standards and codes based on locally available materials, or linkage to those of recognised countries can hinder the implementation of the local content law as designs based on standards abroad are used to back the importation of 'special' materials and components. The Uganda Bureau of Standards (UBS) should work with the professional institutions to extend the base of standards and codes in the country, and cross-refer to, or adapt appropriate ones from other countries.	Medium – medium term impact	MoWT
Building Control	Develop strategy for ongoing updates to existing codes and standards The proposed 2018 updated building code is long overdue. The UBS should implement a strategy for regular review and updates of standards.	High – medium term impact	MoWT

Law

Uganda has a strong system of laws and regulations guiding all relevant aspects of construction. The main acts are listed in Table 1. It is generally acknowledged by the stakeholders that effective enforcement of most of the laws is a challenge due to financial and capacity constraints.

³⁰ <http://www.monitor.co.ug/Magazines/HomesandProperty/Delaying-building-law-taking-effect/689858-3292342-tnd98qz/index.html>

Law	Description (related to buildings and infrastructure)
Physical Planning Act 2010	Provided for the development of physical infrastructure development plans at a local level by establishing district and urban physical planning committees
Kampala Capital City Authority Act 2010	Defined the Greater Kampala Metropolitan Area (GKMA), and the governance structure of the Kampala Capital City Authority
Local Government Act 1997	Defined the structure of local governments, as well as the powers and functions devolved to them. Later amendments have increased extent of devolution and aimed to provide for implementation of decentralisation
Public Private Partnerships Act 2015	Created a legal framework for the development, implementation, and design of PPPs. The act explicitly restricts the scope of PPPs to central government ministries and departments, excluding local government
Land Act 1998	Established legal provision over ownership and management of land. Regarding urban development, the Land Act established that once urban land has been zoned and a plan becomes law, registered land owners have to conform to approved plans
Public Procurement and Disposal of Assets Act 2003	Established the Public Procurement and Disposal Authority as the principal regulatory body for public procurement and disposal of public assets in Uganda
Public Health Act 2001	Guides all aspects related to laws and regulations on health, including minimum standards and requirements for buildings and provision of infrastructure services
Occupational Health & Safety Act 2006	Outlines requirements for employers to ensure health, safety and welfare of persons at work
National Environment Act 1995	Established the National Environment Management Authority to coordinate, monitor and supervise all activities in the field of environment, including administration of the Environmental Impact Assessment Regulations 2014
Building Control Act 2016 – Not Yet Approved	Consolidates, harmonises and amends the law relating to the erection of buildings, to provide for building standards, establish a national building review board and building committees; to promote and ensure planned, decent and safe buildings structures that are developed in harmony with the environment and for other related matters.
Buy Uganda Build Uganda Policy 2014	Aimed at promoting the consumption of locally produced goods and services, including consultants, contractors, material and equipment for construction projects.
Uganda National Action on Physical Disabilities 1999	National representative of PWPDS ³¹ with 40 district member associations, precursor to Uganda's Accessibility Standards which were launched in 2010.

Table 1 Key laws affecting the construction industry in Uganda³²

The Public Procurement and Disposal of Assets Act (PPDA) of Uganda guides the procurement of both the design consultancy and construction of public projects. There is no standard form of contract for Uganda, and the International Federation of Consulting Engineers (FIDIC)³³ forms are typically used, which can be overly complex for the local market. However, international funders often impose different procurement requirements which make it difficult for local contractors to demonstrate compliance either through lack of technical or management experience, or lack of experience of preparing international tender packages. One consultee suggested “FIDIC and other foreign contracts are not fair on the local contractors. They have no access to loans, no access to credit. These contracts are used to protect the donors”.

The 2014 Buy Uganda Build Uganda (BUBU) Policy³⁴ requires that local content should constitute at least 30% of all goods and services procured by the public client. Implementation and enforcement of this policy is proving challenging as local consultants and contractors often lack the capacity or experience to take advantage of this provision, especially for relatively complex projects. Local firms would benefit from more specific requirements to promote their input into all construction projects, either exclusively or through joint venture partnerships.

³¹ <http://unapd.org/about-us/history/>

³² Credit to Financing the Urban Transition: How Uganda can unlock sustainable urban infrastructure investment, 2017

³³ <http://fidic.org/>

³⁴ Buy Uganda Build Uganda Policy, Ministry of Trade, Industry, and Cooperatives, 2014

Access to land is a major problem for development in Uganda. The 1995 constitution abolishes institutional leases, and transfers ownership to private individuals. This creates three significant challenges:

- 1) For public infrastructure projects such as road construction, there are multiple land owners to agree compensation with before any works proceed. There is no compulsory purchase law and land valuation often leads to litigation procedures delaying construction works. There are plans to amend the law to allow construction to commence whilst compensation is being agreed.
- 2) Land is often acquired for speculative purposes, and with no obligation for development, can sit barren and undermine surrounding development. The 2010 Physical Planning Act requires private landowners to employ a qualified planner to develop a strategy for land, but this has not resolved the issue.
- 3) There is a lack of integrated planning and infrastructure services provision. An anecdotal example from the consultations suggested that in Mbalala 3,600 household plots were developed for 20,000 people with little additional provision for public services.

In 2007, the Equal Opportunities Commission was established to promote the rights of women and social justice, however, Human Rights Watch reports increasing intimidation, harassment and bureaucratic interference.³⁵ This is further undermined by the NGO Act 2006³⁶ that restricts NGO operations in Uganda.

There are currently no incentives for attaining any level of building performance criteria, although an objective of National Housing Policy is to promote “efficient utilisation of energy and other resources in housing, so as to address issues of environmental conservation”.³⁷

The Uganda National Action on Physical Disabilities (UNAPD) is undertaking advocacy and lobbying activities to ensure that the Accessibility Standards are made part of the regulations and implementation codes of the Building Control Act. Under the Accessibility Improvement Project in Kampala, UNAPD seeks to improve physical accessibility to both public and private buildings in the capital to enable persons with physical disabilities to enjoy these facilities without barriers.³⁸

CCF Element	Recommendation	Priority	Key Stakeholders
Law	<p>Revise procurement requirements to support local contractors and consultants</p> <p>The ‘Buy Uganda Build Uganda’ (BUBU) policy provides opportunities for Uganda enterprises to grow. However, in the construction industry, consultants and contractors, as well as individual professionals and technicians, are not yet in a position to take advantage of the policy to effectively play a role as “30 percent partners”.</p> <p>A systematic programme of capacity building is required, which should be complemented by revising procurement requirements to enhance development opportunities for local input. It should ensure that the input of the local enterprise involves work that requires some technical and managerial elements, thus enabling the companies to share knowledge and improve their capability. To avoid tokenism, the local company benefitting from the scheme should have been a partner of the foreign counterpart at the time of the bid, rather than being engaged after the project has already been awarded. To facilitate effective collaboration, English language skills should be a requirement for international input and formal training</p>	High – short, medium and long term impact	PPDA, MoWT, UNABCEC,

³⁵ <https://www.hrw.org/news/2012/08/21/uganda-growing-intimidation-threats-civil-society>

³⁶ <https://ulii.org/ug/legislation/act/2015/2006-20>

³⁷ National Housing Policy 2016, Ministry of Lands, Housing and Urban Development

³⁸ <http://unapd.org/projects/current-projects/>

	plans and key performance indicators should be in place to ensure capacity building is carried out in reality and not just on paper.		
Law	<p>Reduce barriers for land acquisition</p> <p>Many countries have successfully adopted compulsory purchase laws to facilitate national development. This relies on independent, transparent and fair land valuations and prompt compensation packages being enforceable. It is acknowledged that this is a controversial suggestion as it contradicts the 1995 constitution, but the land issue is a significant obstacle to development and this approach should be considered as a viable solution. It is recommended that similar policies from other countries are reviewed for feasibility of implementation in Uganda. Other approaches to easing the access to land issue currently being considered include:</p> <ul style="list-style-type: none"> • Enforcement of land registration and tax collection to raise revenue to support land compensation payments; • Enforced development of land development plans for each privately-owned parcel of land, and; • Update policy to enable construction commencement in parallel with compensation agreement. 	High – medium term impact	National Government (e.g. MoLUD), Local government (e.g. KCCA)
Law	<p>Realign tender evaluation criteria with development objectives</p> <p>The construction industry in Uganda should move on from the focus on cost and time in project performance. The industry should include welfare, health and safety, environmental performance, client and user satisfaction, and impact on local capacity building in assessing project and industry performance. Building development targets into specific projects will directly improve the impact projects have and enhance their contribution to development outcomes.</p>	High – short, medium and long term impact	Public sector clients and international investors
Law	<p>Create standard form of contract for Uganda</p> <p>FIDIC is generally used for larger projects, but it can cause problems as local contractors are not familiar with its complexity. A study should be undertaken to review the appropriateness or otherwise of different forms of contract, and how they could be adapted more appropriately for use in Uganda. This could include an adaptation of FIDIC, or consider other options such as the New Engineering Contract used to promote plain language and collaborative approaches in the UK and internationally, or the Joint Building Contracts Committee in South Africa.</p>	Medium – medium term impact	PPDA, MoWT, UNABCEC, UIPE
Law	<p>Establish ‘green’ building certification scheme</p> <p>Uganda’s ambitious development plans put its natural resources and environmental protection at significant risk, particularly with the anticipated seven-fold increase in electricity demand to 2040. A green buildings certification scheme such as those adopted by South Africa would help raise awareness of the issues and promote solutions to reduce environmental impact and support sustainable development.</p>	Medium – medium and long term impact	MoWT, MoLHUD, KCCA, NEMA

3. People & Organisations

The vast majority of construction activities (by value) are currently being undertaken by international contractors, importing human and material resources. This practice is reducing the potential development impact and opportunities for growth and improvement of the local construction industry. This challenge is widely recognised among stakeholders, and recent initiatives have attempted to address some of the barriers to promoting local capacity building.

Although infrastructure projects are increasing in number, value of investment, and complexity, the share of work being undertaken by international stakeholders is also increasing, not only for larger and more complex projects, but also for small simple contracts such as maintenance works.

People & Organisations	Clients	Owner / Developer
		Donor / Sponsor
		Government
	Consultants	Project Manager
		Architect
		Engineer
		Finance
		Lawyer
	Contractors	Main contractor
		Sub-contractor
		Suppliers & Manufacturers
	Institutions & Associations	Statutory Agencies
		Professional Institutions
		Trade Associations & Unions
		Academic & Training Institutions
	Civil Society	End Users & Affected Communities
Facilities / Asset Managers		

Figure 11 CCF considerations for People & Organisations

Office / Ministry	Role / function (in relation to the construction industry)
Office of the President	Oversees and coordinates government policy
Ministry of Finance, Planning and Economic Development	Oversees management of public finance and planning for Uganda's development, including the National Planning Authority
National Planning Authority	Primary responsibility is to create comprehensive and integrated plans for Uganda's development – these have included Vision 2040, and National Development Plans I and II
Ministry of Lands, Housing and Urban Development	Mandate includes land administration, physical planning, and urbanisation
Ministry of Works and Transport	Oversees planning, development and maintenance of transport infrastructure and services
Ministry of Water and Environment	Sets policies and standards, regulates, and manages water resources and development
Ministry of Education and Sports	Coordinate, regulate and promote quality education, training and sports, including infrastructure management and development planning
Ministry of Health	Coordination of health sector activities including infrastructure management and development planning
Ministry of Local Government	Oversees local government units, including promoting decentralisation and building local government capacity
Uganda Investment Authority	A semi-autonomous government body established to attract investment to Uganda
Uganda National Roads Authority	Develop and maintain the national roads network, including the selection of contractors, supervision of construction, the scheduling of maintenance, and the prioritization of national road works.
Uganda Roads Fund	Finance the implementation of the maintenance programmes carried out by the Uganda National Roads Authority, Kampala Capital City Authority and the other designated agencies responsible for District, Urban and Community Access Roads.
Kampala City Council Authority	Elected governing body which administers the Capital City including revenue collection and overseeing infrastructure planning, implementation and asset management.

Table 2 Key public sector bodies³⁹

Clients

The public sector is the largest client of the construction industry. The main public procurement agencies are the Ministry of Education and Sports (MoES), Ministry of Health (MoH), Ministry of Works and Transport (MoWT), and Ministry of Lands, Housing and Urban Development (MoLHUD). The Uganda National Roads Authority (UNRA), and municipal and local authorities such as the Kampala City Council Authority (KCCA) are the main procurement organisations for roads. There is some co-ordination among

³⁹ Credit to Financing the Urban Transition: How Uganda can unlock sustainable urban infrastructure investment, 2017

the government institutions, but overly complex bureaucratic processes (described by one consultee as “bureaucracy paralysis”), and/or lack of capacity to manage the works they commission often lead to long procurement processes and delays in approvals and payments.

Public sector clients play a crucial role in providing opportunities, enabling a fair tender process, and promoting local consultants, contractors, and suppliers. UNRA is largest client and regulator, and are also seeking to build in-house capacity to become a contractor thereby further reducing opportunities for the local private sector. One consultee said “A regulatory agency should not be competing in a market it is in charge of”. The Office of the Auditor General found similar conflicts within the roles of the Ministry of Works and Transport in their 2015 review of the construction sector regulation.⁴⁰ The KCCA is seen to have made positive changes as client and regulator, with initiatives such as solar street lighting, and community planning consultations; these can be emulated by other local authorities.

International donors support public sector clients, and in doing so define additional procurement rules as well as complementary technical assistance agreements to build local capacity such as the CrossRoads programme of DFID; technical assistance to develop the Uganda Institute of Professional Engineers (UIPE); and assistance to the Roads Fund.

CCF Element	Recommendation	Priority	Key Stakeholders
Clients	<p>Streamline bureaucratic processes in public procurement</p> <p>The capacity constraints of public client organisations leads to delays in procurement processes, and especially, delays in payments due to contractors for work done. Delayed payments are a critical problem in the construction industry, as it has been leading to corporate failures and loss of assets firms had pledged to obtain credit. The budgeting, project administration and monitoring systems for public works could be reviewed, and actions taken to ease the bottlenecks.</p>	High – medium term impact	Ministries and public agencies
Clients	<p>Ring-fence projects for local contractors</p> <p>UNRA’s internal capacity building to take on contracting jobs directly, will lead to the agency becoming client, regulator and contractor. Apart from the conflict in interests that arise, this also further reduces opportunities for local contractors and inhibits their capacity development. For example, the recent CrossRoads plant operator training has resulted in all 60 of the local trained operators being absorbed into the UNRA ahead of private firms. It is recommended that a study is undertaken to assess the viability of introducing floor limits of the project value, for projects which could be reserved for Ugandan contractors. This should strike a balance between ensuring projects are within the operating capacity of local firms, and the burden of management if there were too many small-sized projects.</p>	High – short term impact	Ministries and public agencies

⁴⁰ Regulation of the Construction Sector by Ministry of Works and Transport, 2015, Office of General Auditor.

Clients	<p>Reconsider investment specific procurement requirements</p> <p>The significance of additional requirements from international funding providers should not be underestimated, and efforts should be made to actively promote local content and capacity building through these requirements. While international investors are right in seeing the provision of infrastructure as a priority, they should also consider the project as a vehicle to supporting the development of local industry.</p>	High – short term impact	Ministries, public agencies, and international investors
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Consultants

Architects and engineers are required by law to register. The process is described by a stakeholder as “rigorous but bureaucratic”. The number of registered engineers in Uganda is less than 1,000 with only half of those practising. For a population of 40 million, this is considered to be highly inadequate. There have been various schemes to prepare young engineering graduates for registration.

The university boom in the 1990s saw many technical colleges upgraded to universities and the resulting number of engineers graduating is increasing each year. The degrees’ syllabi are typically theory-based Bachelors of Science, which do not prepare graduates as well for industry as a Bachelor of Engineering syllabus could. Engineering courses are general, so there is a lack of specialists in the market, such as for the geotechnical, dams, electrical, mechanical, public health, and planning fields.

There are limited work opportunities for engineers to practice and enhance their skills, and many look for work in other sectors.

CCF Element	Recommendation	Priority	Key Stakeholders
Consultants	<p>Amend tender qualification requirements to support local consultants</p> <p>Ugandan consultants face competition from foreign entities for work. Some stakeholders highlighted qualification criteria in bidding documents which state specific track records and periods of experience which effectively exclude the Ugandan companies from the competition. The procurement requirements should be reviewed and amended to enable more local consultants to qualify. Where specific expertise is required that may not be available locally, mechanisms for joint ventures or partnerships should be explicitly outlined which facilitate knowledge and skills transfer to local consultants in these specific areas. This needs to be policy driven and build on the current local content requirements, as the market forces are not currently enabling knowledge transfer and capacity building.</p>	High – short term impact	National and municipal government agencies, donors and international investors

Consultants	<p>Carry out audit of professional, technician and trade expertise</p> <p>The number of registered engineers in Uganda is relatively low on a per-capita-population basis. It is likely that there are similar inadequacies in terms of registered architects, and other professionals, technicians and skilled personnel. It was not possible to find data on the number of persons in any of the various professions and skills. An audit of relevant categories of construction expertise and maintenance of a construction personnel database should be undertaken.</p>	Medium – medium to long term impact	UCICO
Consultants	<p>Update educational syllabi to align with knowledge gaps</p> <p>The syllabi of the educational programmes in construction at all levels (supervisory, technician, and tertiary) should reflect recent developments in global practice as well as current needs in the industry in Uganda. This should include effective coverage of sustainable construction in a Ugandan context, stakeholder management, ethics and social responsibility and aspects of information and communication technology applications such as building information modelling (BIM).</p>	Medium – long term impact	MoE, MoWT, MoLHUD, UIPE, UNABCEC

Contractors

Local contractors typically lack the financial and management capacity to respond to complex international tender processes and contracts. There is also a lack of technical capacity to deliver complex projects and benefit from the 30% local content requirements. This gap in capacity also extends to managing social risks and implementing safeguards. They would benefit from better integration with international contractors to share knowledge and transfer skills. Often international contractors bring foreign construction teams or management teams who do not speak English. In cases where local content requirements are satisfied by providing low skilled input, this fails to benefit from the knowledge transfer opportunity that a tiered joint venture arrangement would provide.

Local contractors would also benefit from initiatives that ring-fence smaller jobs, or smaller packages within larger projects, for example splitting a 100km road contract into 10km packages. “I have not seen any local company which has grown after being a subcontractor of a foreign company, or any person who has worked for an expatriate company becoming successful as a contractor” said one consultee. Local content requirements should also be tightened to prevent local registration of international contractors from complying. The BUBU policy could be revised to focus on involvement of local firms at all levels and stages, and with an ambition to achieve increasing involvement to far greater than 30% in the future.

There is not yet a central contractor registration scheme in Uganda. A project to develop a classification and registration scheme for road contractors is being developed under the leadership of the Ministry of Works and Transport. There is a scarcity of skilled personnel in key areas of the construction workforce. The conversion of some technical institutions into universities has brought an imbalance in the output of various grades of personnel, and appears to be leading to an inversion of the pyramid of skills with key shortages in plant operators, plumbers, electricians and masons. Many of these roles are filled by learning on the job, and with no formal certifications to support tender requirements in these areas, local contractors are not able to comply to win projects.



Figure 12 Northern Bypass under construction, Kampala. Photo Credit: Arup

CCF Element	Recommendation	Priority	Key Stakeholders
Contractors	<p>Improve access to contract opportunities for local contractors</p> <p>The CrossRoads programme sought to support local contractors accessing public procurement opportunities. This is a critical objective to enable local contractors to build their own capacity by delivering construction projects and being paid for them. A support programme based on the success of Crossroads, should be developed with broader stakeholder engagement to suit the needs of the wider construction industry.</p>	High – medium and long term benefits	National and municipal government agencies, donors and international investors
Contractors	<p>Enhance vocational training programmes</p> <p>Many technical institutes have been upgraded into universities. Thus, Uganda faces the possibility of having an inverted skills pyramid. There are key skills shortages in the industry, and the vacancies are being filled by foreigners. There is the need for systematic measures to address this. A skills gap analysis should be undertaken, and mechanisms developed to develop the critical skills in acute shortage.</p>	High – medium and long term benefits	Universities, vocational institutes, UIPE, UNABCEC, MoWT
Contractors	<p>Formalise skills certification</p> <p>Trade skills certification processes should be formalised to establish benchmarks for quality and to satisfy tender requirements locally.</p>	Medium – medium term benefits	PPDA, vocational institutes, UNABCEC
Contractors	<p>Formalise contractor registration</p> <p>An exercise is underway (under the extended CrossRoads programme) to develop a contractor registration and classification system for the road sector. This should be extended to include contractors across the industry and be hosted by an appropriate statutory body such as the Ministry of Works and Transport.</p>	Medium – medium term benefits	UCICO, MoWT

Institutions & Associations

The professional institutions and associations are active but relatively new and with limited but growing influence in the industry. There is no formal registration of contracting or consulting firms which makes it difficult to protect standards and enable prequalification for contracts. The CrossRoads programme was addressing this for road contractors. It was not possible to obtain data on the number of consulting firms in Uganda. Only a small number of them are members of the Uganda Association of Consulting Engineers (UACE), which is active in providing the training programmes for building capacity among engineers – primarily amongst its members, but also carrying out advocacy programmes more broadly.

The Uganda National Association of Building and Civil Engineering Contractors (UNABCEC) is considered to be an asset, having grown recently to represent the industry. It has benefitted from capacity building under the CrossRoads programme. The Uganda Institution of Professional Engineers (UIPE) and Engineers Registration Board (ERB) work closely together and the EU is currently funding a programme to strengthen their role in building capacity within the sector. The Roads Industry Council (RIC) is a multi-stakeholder advocacy group formed out of the CrossRoads programme. They are in the process of being established and expected to have an influential role in the roads sector.

The Uganda Construction Industry Commission (UCICO), proposed in the national construction strategy, will soon be set up. A Bill has been prepared, and it is going through the parliamentary process. The industry expects that the commission will provide many of the answers to the problems facing the construction industry in Uganda. Similar agencies are established in Kenya, Tanzania, and South Africa.

A number of universities (the most prominent being Makerere University) offer programmes in all aspects of construction, including Architecture, Construction Management, various types of Engineering, Land Surveying and Quantity Surveying. There is a need to enhance the technical content of the programmes, as well as to provide training to graduating engineers to prepare them for professional registration. Aspects of climate and environment issues should be included in the syllabi of relevant institutions.

CCF Element	Recommendation	Priority	Key Stakeholders
Institutions & Associations	<p>Form Uganda Construction Industry Commission (UCICO)</p> <p>UCICO is a construction industry development agency proposed in the national construction industry policy. The formation of the long awaited commission is quite imminent, and the industry expects it to make a major difference. It will be important to equip the commission with the necessary statutory powers, organisational prestige, qualified personnel and operating resources to be a truly executive agency in the context of the construction industry in Uganda.</p>	High – short, medium and long term impacts	National government, UCICO
Institutions & Associations	<p>Enhance professional development for consultants</p> <p>Provision should be made to train graduate architects and engineers and providing them with the necessary experience to seek registration – the EU funded programme to support the UIPE is aiming to address this for engineers.</p> <p>The professional institutions such as the Uganda Institution of Professional Engineers (UIPE) and Uganda Society of Architects (USA) have the potential to contribute to the building of capacity and attitudes</p>	Medium – medium and long term impacts	UIPE, ERB, USA, UNABCEC

	within the construction industry to enhance performance. Capacity building programmes which have been implemented for UIPE could be replicated and extended for other institutions such as USA. Collaboration among them should also be fostered.		
Institutions & Associations	Further support to Uganda National Association of Building and Civil Engineering Contractors The capacity of UNABCEC was enhanced under the CrossRoads programme. The association now has a good name, and it has the potential to play a major part in improving the performance of contractors. It would benefit from further development with assistance to undertake the initiatives outlined in its strategic plan.	High – short, medium and long term impacts	UNABCEC, national and municipal public sector clients
Institutions & Associations	Expand Roads Industry Council to embrace whole industry The RIC embraces the major stakeholders of the road sector. The industry would benefit if one umbrella organisation could be formed for the whole of the construction industry in Uganda. As many of the stakeholders are cross sectoral, it is recommended that the RIC is expanded to include the building sector and wider industry as a whole.	High – short, medium and long term impacts	UCICO

Civil Society

Several Civil Society Organisations (CSO) seek to represent the interests of citizens in relation to public infrastructure. An example is the Uganda Road Sector Support Initiative which seeks to improve governance in the transport sector. The Building Construction, Civil Engineering, Cement and Allied Workers Union is a member of the National Organisation of Trade Unions. CoST, the Infrastructure Transparency Initiative, is a multi-stakeholder initiative which promotes transparency by disclosing data from public infrastructure investment, helping to inform and empower citizens, and enabling them to hold decision-makers to account. This has been effective in multiple countries around the world, including in Malawi, Ethiopia, Botswana and Tanzania. It is hoped that it will grow and cover every public infrastructure project in Uganda.

Users and asset managers of buildings and infrastructure have clear roles in the handover processes on completion of construction. However, the preparation of maintenance manuals and provision of training for users of buildings are emerging practices. Users and affected communities can also play a more significant role in project planning and enforcement.

It is suggested that the community's awareness with regards to women in engineering in Uganda is still low. Thus, the owners of construction firms are generally expected to be men.⁴¹ However, through the consultations it is clear that women play an active role in the construction industry, and many of the leaders of the professional institutions and associations are women. For example, the UIPE President and Honorary Treasurer are women (with 10 other male board members) and the USA Vice President and Honorary Secretary are also women with two other female and six male members of the council.

⁴¹ Makumbe, G. (undated) Joy Makumbe: Engineering is all about works. <https://sheleadsafrica.org/joy-makumbe/>

CCF Element	Recommendation	Priority	Key Stakeholders
Civil Society	<p>Better community involvement</p> <p>The community can be given a greater level of involvement in projects. Ownership by the community can be an effective tool to reduce the impact of lack of capacity to enforce regulations. The community can be given greater education and awareness, and the encouragement to assume responsibility for assets such as roads and schools provided for them. Once engaged, communities can support the filling of institutional capacity gaps through self-policing. For construction projects, this starts with the planning process (refer to recommendation under Planning related to the development and sharing of neighbourhood plans).</p>	Medium – short, medium and long term impacts	Municipal and district authorities, community groups
Civil Society	<p>Develop asset management handover strategy</p> <p>Uganda does not yet have an asset management culture, especially with respect to buildings. Such skills need to be developed. Designers and builders should develop mechanisms to educate users of facilities to use them effectively; and clients should be made aware of the merits of life-cycle considerations with respect to construction.</p>	Medium – medium term impact	Clients, MoWT, UNABCEC, UIPE

Conclusions

The construction industry in Uganda is relatively young and severely under developed, having suffered two “lost decades” since the loss of significant proportion of skilled professionals during the expulsion of foreigners in the 1970s. It is currently falling far short of its potential and what the nation needs if it is to meet its ambition to be a modern and prosperous country by 2040. Recent significant industry developments and investments and have generated an atmosphere of hope that things are slowly changing – as one consultee states “the construction industry in Uganda has a bright future – there is a lot of opportunity and investment”.

The biggest challenge the industry now faces is how to leverage these investments to develop the industry in the face of increased competition from the international market. Addressing this problem should be recognised by government and its bilateral and multilateral partners as a national priority. A concerted and properly resourced programme is needed. This should include actors from across the institutional spectrum and be coordinated by Uganda Construction Industry Commission.

A summary of specific recommendations, outlined in the above report, is consolidated in Appendix 4. The following initiatives encompass some of these recommendations and could be considered as a matter of priority for Uganda’s decision makers and development partners.

1. A new programme building off the successes of the Crossroads programme but with more input from and ownership by industry stakeholders. This time, it should be formulated with direct input from the stakeholders of the construction industry; and it should cover both the building and civil engineering segments of the industry. It should be housed and owned by an institutional agency, such as the Ministry for Works and Transport.
2. Support for the Uganda Construction Industry Commission (UCICO) upon its formation. The UCICO Bill is an essential step to formalise the necessary statutory powers, organisational prestige, qualified personnel and operating resources to be a truly executive agency. The industry’s stakeholders generally see the commission as the one thing which can effectively tackle the many challenges of the industry. Experience in a number of African countries shows that the potential of such agencies is often not realised because of lack of funding for its executive, developmental and enforcement activities.
3. Review of the implication of different donor procurement and performance conditions on the ability to mobilise the 30% local content requirements in an effective way that encourages capacity building in the local industry. Advocacy is needed to achieve a transformational shift away from the delivery of infrastructure as an output, to the use of infrastructure implementation as a vehicle for local capacity building. This requires a shift away from low-cost bidding, to a focus on the wider implications of value attributed not just to human welfare and environmental issues, but to developing the capacity of the local industry.
4. Review of local skills and knowledge gaps to meet current and future industry needs and alignment of all levels of education, training, and certification to help address the shortfall. The stakeholders acknowledge the shortfall in specific professional skills, vocational skills, and awareness of key sustainable development issues, all of which should be supported at different levels of the education, including primary and secondary education as well as tertiary and vocational training.

Appendices

Appendix 1 – List of Acronyms

Acronym	Meaning
BIM	Building Information Modelling
BUBU	Buy Uganda, Build Uganda
CCF	Construction Capacity Framework
CoST	Construction Sector Transparency Initiative
CSO	Civil Society Organisation
DFID	Department for International Development
DRC	Democratic Republic of Congo
EIA	Environmental Impact Assessment
ERB	Engineers Registration Board
EU	European Union
FIDIC	International Federation of Consulting Engineers
GBP	Great British Pounds
GDP	Gross Domestic Product
GINI	Coefficient of Income Inequality
ICED	Infrastructure and Cities for Economic Development
KCCA	Kampala Capital City Authority
MoE	Ministry of Education
MoES	Ministry of Education and Sports
MoH	Ministry of Health
MoLHUD	Ministry of Lands, Housing and Urban Development
MoWT	Ministry of Works and Transport
NDP	National Development Plan
NGO	Non-governmental Organisation
PPDA	Public Procurement and Disposal of Assets
PPP	Public Private Partnerships
RIC	Roads Industry Council
UACE	Uganda Association of Consulting Engineers
UBS	Uganda Bureau of Standards
UCICO	Uganda Construction Industry Commission
UIA	Uganda Investment Authority
UIPE	Uganda Institute of Professional Engineers
UK	United Kingdom
UNABCEC	Uganda National Association of Building and Civil Engineering Contractors
UNAPD	Uganda National Action on Physical Disabilities
UNRA	Uganda National Roads Authority
USA	Uganda Society of Architects
VAT	Value added Tax

Appendix 2 – Application of the CCF

A key objective of the preliminary assessment of Uganda's construction industry was to understand the effectiveness of the ICED Construction Capacity Framework to structure the approach and reporting. It was generally found to be a useful way of framing conversations around the effectiveness of the construction industry. This appendix provides a summary evaluation of the application of the CCF in Uganda and recommendations for improvement and further development.

How effective was the framework in the assessment of Uganda's construction industry?

The CCF provided a useful structure for planning the research and carrying out the consultations.

With the "construction industry" being such a broad scope, the CCF provides a useful entry point to focus conversations on strengths and weaknesses within the industry. Consultees were asked to provide a qualitative health score for the industry and the CCF graphic provided a useful prompt for brief summaries in each area.

This assessment aims to include cross-cutting issues affecting the construction industry, including gender and social inclusion. However, these have not been as explicitly addressed as they might have been, partly as they were addressed by the ICED Environmental & Social Safeguarding assessment in Uganda in 2017. For example, the assessment does not explore the difficulties faced by particular demographics within areas of the construction industry, for example women or ethnic minorities. The CCF could emphasise the importance of these cross-cutting issues so that they don't become lost in the detail of the illustrative questions and to ensure they are addressed more thoroughly. For example, Institutions & Associations could be a useful entry point to raising awareness of G&I issues amongst industry actors.

What needs to be changed in the framework?

The purpose of the application of the CCF is defined by the existence and nature of the development objectives of the host country. This should be identified as part of the Context section of the framework as it then drives the research approach and recommendations.

Many of the issues relate to overlapping areas of the CCF. This made the reporting structure challenging, and the conclusion section was a useful way to draw together the interdependent nature of some of the challenges which cut across different "elements" and "pillars". For example, the limited access to finance for local contractors led to limited opportunities to develop local capacity which undermined the intentions of the local content policy. This narrative cuts across all three "pillars" and there is a risk that its clarity could be compromised by the compartmentalised nature of the reporting structure.

There were some instances where similar issues appear in different elements or pillars. For example, the registration process for engineers and architects appears under the legal framework, but is also directly relevant to the capacity of consultants within the People & Organisation pillar. The framework could be revised slightly to clarify this, but ultimately as long as it is captured it does not really matter where it is logged.

It would be helpful if the physical characteristics of the built environment were consolidated in one place within the framework, currently materials are addressed in both "factors of production" under the Investment & Business pillar and "codes and standards" under the Legal & Regulatory pillar. Additionally, it is important that construction typologies and natural hazards should be included in the initial context research piece.

What further developments would help in the application of the framework?

It would be useful to develop a clear set of indices for evaluating the construction industry at either "element" or "consideration" level. These indices could combine both qualitative and quantitative performance indicators to provide an overall health score which can be benchmarked globally. This may

provide more confidence in the findings and lead to clearer prioritisation of recommendations. One step further would be to provide cost benefit benchmarks for typical interventions.

This would also require the development of a data collection toolkit to support a more consistent application of the framework.

What advice can be given on the use of the framework in the field?

It is important to determine the objectives, scope, depth and timeframe of the assessment in advance and ensure this is clearly communicated to all stakeholders. The volume and relevance of the illustrative questions were varied, and so it is worth highlighting the more relevant questions to cover the most pressing issues, being careful not to eliminating some elements completely.

The CCF diagram was a useful graphic to frame conversations, as some consultations focus on specific areas, whilst others may cover all elements in the diagram. In more focused consultations, reference was made to the “considerations” within each of the “elements”, and in some cases reading the “key questions” directly from the framework report.

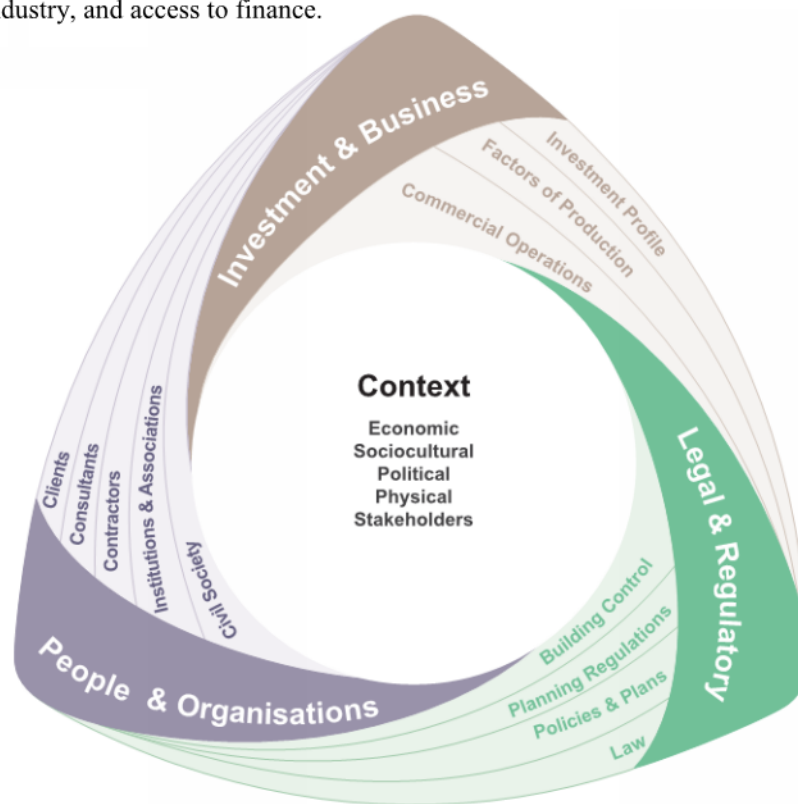
A variety of individual and group-based consultations was an effective way to combine both deep knowledge and common understanding of the issues.

Some useful tools used during the consultations such as a consultation record form, and pre-consultation introduction letters are included below for reference.

Construction Capacity Assessment, Uganda



The Construction Capacity Framework developed by DFID’s Infrastructure for Cities and Economic Development (ICED) programme provides a structured approach to understanding the strengths and weaknesses of the construction industry to identify areas to invest in strengthening to support more effective infrastructure delivery and development outcomes. The key elements comprising the industry can be broadly arranged into three pillars covering the capacity of people and organisations to undertake their responsibilities effectively, the institutional and regulatory environment which supports the industry, and access to finance.



In January 2018, Joseph Stables and George Ofori from the ICED team, will carry out a preliminary assessment of the construction industry in Uganda to understand the challenges it faces in supporting the 2020 and 2040 development objectives. The focus will be on the roads sector, within a broader understanding of the wider industry

Consultations

The assessment will be carried out primarily by obtaining a wide variety of perspectives of people with experience and knowledge of the industry in government, private sector, professional institutions, associations, and civil society. These consultations will be supported by document research.

Consultations will be held either individually or in small groups. All information and opinions provided will be confidential and only used anonymously.

Contact Joseph.Stables@arup.com

CCF, Uganda – Consultation Record



Names	
Affiliation	
Backgrounds	
Roles	
Organisation responsibilities	
Investment & Business	
Legal & Regulatory	
People & Organisations	
Main challenges & Opportunities	
AOB	

Appendix 3 – Document Reference List

The document list below contains reference material used in this preliminary assessment, with key documents shown in the highlighted rows:

Title or Description	Date	Author
The Political Economy of Roads Reform in Uganda	Sept 2009	ODI, David Booth and Frederick Golooba-Mutebi
Ministerial Budget Policy Statement	Mar 2016	Ministry of Works and Transport
Who is growing? Ending Inequality in Uganda	Mar 2017	Oxfam, Augustus Nuwagaba and Fred Muhumuza
Doing Business 2018	2017	World Bank
Ministry of Local Government Fact Sheet	Unknown	Ministry of Local Government
CrossRoads - five years of progress	Dec 2015	IMC, David Entwhistle, Alex Mugova
Environmental Impact Assessment Guidelines for Road Projects	Sept 2004	Ministry of Works, Housing and Communications
National Transport Masterplan	Aug 2009	Ministry of Works and Transport
Regulation of the Construction Sector - A report by the Auditor General		Officer of the Auditor General
Second National Development Plan (NDPII)	Jun 2015	National Planning Authority
Uganda Vision 2040	2007	National Planning Authority
Construction Sector Indices, August to September 2017	Nov 2017	Uganda Bureau of Statistics
Uganda Market Update	2016	Knight Frank
Environmental Regulation in Uganda: Successes and Challenges	2007	Christine Echokit Akello
National Environment Management policy	2014	National Environment Management Authority
National Anti-Corruption Strategy	2008	Directorate for Ethics and Integrity, Office of the President
Overview of corruption and anti-corruption	2013	Transparency International
Building Control Regulations	2012	Ministry of Works and Transport
Building Control Regulations Schedules	2012	Ministry of Works and Transport
Electrical Installations Guidelines	2012	Ministry of Works and Transport
Standard specifications	2012	Ministry of Works and Transport
Highlights of the Building Control Bill	2012	Public Procurement and Disposal of Public Assets Authority
Seismic Code of Practice for Structural Designs	2003	Ministry of Works and Transport
National Land Use Policy	2006	Ministry of Lands, Housing and Urban Development
National Land Policy	2013	Ministry of Lands, Housing and Urban Development
National Land Policy Implementation Action Plan	2015	Ministry of Lands, Housing and Urban Development
Public Procurement and Disposal of public assets act	2003	GoU
Employment Regulations	2011	GoU
Employment Act	2006	GoU
Occupational Safety and Health Profile for Uganda	2004	Ministry of Gender, Labour and Social Development
Environmental Impact Assessment Regulations	1998	GoU
Violence Against Women and Girls, Infrastructure and Cities Briefing Paper	2017	ICED
Cities and Infrastructure for Growth, Uganda, Scoping Report	2017	ICED
Safeguards Toolkit produced for DFID Uganda	2017	ICED
Infrastructure: A game-changer for Women's Economic Empowerment	2016	ICED
Policy for Development and Strengthening the National Construction Industry	2010	MoWT
Rwanda National Construction Industry Policy	2009	Mol
IMF Uganda Report	2017	IMF
Financing the Urban Transition	2018	PwC / LSE
Future Proofing Cities – Uganda – Secondary Cities	2016	Arup / Cities Alliance

Appendix 4 – Consolidated Recommendations Summary

Investment & Business			
CCF Element	Recommendation	Priority	Key Stakeholders
Investment Profile	<p>Identify and evaluate strategies to promote private investment</p> <p>These may include a more detailed and accurate project pipeline, credit guarantee schemes, and enhanced PPP procedures.</p>	High – short term impact	UIA
Investment Profile	<p>Identify and evaluate strategies to increase domestic revenue collection</p> <p>These may include expanding the tax base, applying user fees, and improving enforcement.</p>	High – short term impact	MoF
Factors of Production	<p>Establish plant & operator hire schemes</p> <p>Access to plant and skilled operators is preventing local contractors from procuring construction contracts. UNRA have recently purchased USD500 million of road construction plant and currently employ more than 60 operators (trained through the Crossroads programme). A plant and operator hire scheme should be introduced at district or municipal level to remove this barrier for local contractors across the country. This could be initiated by UNRA making use of existing equipment and operators to support local contractors.</p>	High – short term impact	UNRA MoWT
Factors of Production	<p>Review the impact of an introduction of a minimum wage</p> <p>The introduction of a minimum wage would have both positive and negative impacts on the economy in both the short and long term. It is recommended that a review is carried out to ascertain the feasibility of the introduction of a minimum wage and its appropriate level.</p>	Medium – medium and long term impact	MoF UNABCEC UIPE
Commercial Operations	<p>Improve access to credit for local contractors</p> <p>Access to credit, and to the necessary bonds is one of the most critical problems facing the local construction firms in Uganda. The results of the CrossRoads programme, in which there was no default among beneficiaries of the guarantee fund show that contractors are a reasonable business risk. An extension of the CrossRoads programme to accommodate the broader construction industry would be beneficial. Further development of this programme should be made in collaboration with the contractors' association, UNABCEC, and other</p>	High – short, medium and long term impact	MoWT, DFID, UNRA, Abi-Finance, UNABCEC

	stakeholders to make it more accessible and more effective.		
Commercial Operations	<p>Procure construction by value, not price</p> <p>The main decision criteria in the procurement of construction projects should be changed from price to the concept of value for money. The factor of quality, which includes quality, health and safety and environmental performance, could be introduced as a component of the set of yardsticks which guide decision making in the procurement of public projects.</p>	High – short, medium and long term impact	Clients
Commercial Operations	<p>Enhance transparency and anti-corruption in the construction industry</p> <p>Corruption was mentioned by many of the stakeholders as a bane of the construction industry in Uganda. Programmes such as the Construction Industry Transparency Initiative (CoST), can help to address the situation. CoST Uganda, can be extended to include projects of all major public procurement agencies. A statutory disclosure requirement can also be introduced, to require project information to be released into the public domain. A suitable communication platform could be developed to be the depository of the disclosed information.</p>	High – medium and long term impact	All stakeholders
Legal & Regulatory			
CCF Element	Recommendation	Priority	Key Stakeholders
Planning Regulations	<p>Prepare neighbourhood plans for urban areas</p> <p>The lack of detailed physical planning, to supplement the existing broad structural plans for the cities is hindering efforts to prepare, scrutinise and approve development proposals at the local level. The current initiative to prepare detailed plans in Kampala should be supported and could be extended to other cities and urban areas in Uganda.</p>	High – short, medium and long term impact	KCCA
Building Control	<p>Update material standards to support local sourcing</p> <p>The lack of development of Uganda standards and codes based on locally available materials, or linkage to those of recognised countries can hinder the implementation of the local content law as designs based on standards abroad are used to back the importation of ‘special’ materials and components. The Uganda Bureau of Standards (UBS) should work with the professional institutions to extend the base of standards and codes in the country, and cross-refer to, or adapt appropriate ones from other countries.</p>	Medium – medium term impact	MoWT

Building Control	<p>Develop strategy for ongoing updates to existing codes and standards</p> <p>The proposed 2018 updated building code is long overdue. The UBS should implement a strategy for regular review and updates of standards.</p>	High – medium term impact	MoWT
Law	<p>Revise procurement requirements to support local contractors and consultants</p> <p>The ‘Buy Uganda Build Uganda’ (BUBU) policy provides opportunities for Uganda enterprises to grow. However, in the construction industry, consultants and contractors, as well as individual professionals and technicians, are not yet in a position to take advantage of the policy to effectively play a role as “30 percent partners”.</p> <p>A systematic programme of capacity building is required, which should be complemented by revising procurement requirements to enhance development opportunities for local input. It should ensure that the input of the local enterprise involves work that requires some technical and managerial elements, thus enabling the companies to share knowledge and improve their capability. To avoid tokenism, the local company benefitting from the scheme should have been a partner of the foreign counterpart at the time of the bid, rather than being engaged after the project has already been awarded. To facilitate effective collaboration, English language skills should be a requirement for international input and formal training plans and key performance indicators should be in place to ensure capacity building is carried out in reality and not just on paper.</p>	High – short, medium and long term impact	PPDA, MoWT, UNABCEC,
Law	<p>Reduce barriers for land acquisition</p> <p>Many countries have successfully adopted compulsory purchase laws to facilitate national development. This relies on independent, transparent and fair land valuations and prompt compensation packages being enforceable. It is acknowledged that this is a controversial suggestion as it contradicts the 1995 constitution, but the land issue is a significant obstacle to development and this approach should be considered as a viable solution. It is recommended that similar policies from other countries are reviewed for feasibility of implementation in Uganda. Other approaches to easing the access to land issue currently being considered include:</p> <ul style="list-style-type: none"> • Enforcement of land registration and tax collection to raise revenue to support land compensation payments; 	High – medium term impact	National Government (e.g. MoLUD), Local government (e.g. KCCA)

	<ul style="list-style-type: none"> Enforced development of land development plans for each privately-owned parcel of land; Update policy to enable construction commencement in parallel with compensation agreement. 		
Law	<p>Realign tender evaluation criteria with development objectives</p> <p>The construction industry in Uganda should move on from the focus on cost and time in project performance. The industry should include welfare, health and safety, environmental performance, client and user satisfaction, and impact on local capacity building in assessing project and industry performance. Building development targets into specific projects will directly improve the impact projects have and enhance their contribution to development outcomes.</p>	High – short, medium and long term impact	Public sector clients and international investors
Law	<p>Create standard form of contract for Uganda</p> <p>FIDIC is generally used for larger projects, but it can cause problems as local contractors are not familiar with its complexity. A study should be undertaken to review the appropriateness or otherwise of different forms of contract, and how they could be adapted more appropriately for use in Uganda. This could include an adaptation of FIDIC, or consider other options such as the New Engineering Contract used to promote plain language and collaborative approaches in the UK and internationally, or the Joint Building Contracts Committee in South Africa.</p>	Medium – medium term impact	PPDA, MoWT, UNABCEC, UIPE
Law	<p>Establish ‘green’ building certification scheme</p> <p>Uganda’s ambitious development plans put its natural resources and environmental protection at significant risk, particularly with the anticipated seven-fold increase in electricity demand to 2040. A green buildings certification scheme such as those adopted by South Africa would help raise awareness of the issues and promote solutions to reduce environmental impact and support sustainable development.</p>	Medium – medium and long term impact	MoWT, MoLHUD, KCCA, NEMA

People & Organisations			
CCF Element	Recommendation	Priority	Key Stakeholders
Clients	<p>Streamline bureaucratic processes in public procurement</p> <p>The capacity constraints of public client organisations leads to delays in procurement processes, and especially, delays in payments due to contractors for work done. Delayed payments are a critical problem in the construction industry, as it has been leading to corporate failures and loss of assets firms had pledged to obtain credit. The budgeting, project administration and monitoring systems for public works could be reviewed, and actions taken to ease the bottlenecks.</p>	High – medium term impact	Ministries and public agencies
Clients	<p>Ring-fence projects for local contractors</p> <p>UNRA's internal capacity building to take on contracting jobs directly, will lead to the agency becoming client, regulator and contractor. Apart from the conflict in interests that arise, this also further reduces opportunities for local contractors and inhibits their capacity development. For example, the recent Crossroads plant operator training has resulted in all 60 of the local trained operators being absorbed into the UNRA ahead of private firms. It is recommended that a study is undertaken to assess the viability of introducing floor limits of the project value, for projects which could be reserved for Ugandan contractors. This should strike a balance between ensuring projects are within the operating capacity of local firms, and the burden of management if there were too many small-sized projects.</p>	High – short term impact	Ministries and public agencies
Clients	<p>Reconsider investment specific procurement requirements</p> <p>The significance of additional requirements from international funding providers should not be underestimated, and efforts should be made to actively promote local content and capacity building through these requirements. While international investors are right in seeing the provision of infrastructure as a priority, they should also consider the project as a vehicle to supporting the development of local industry.</p>	High – short term impact	Ministries, public agencies, and international investors
Consultants	<p>Amend tender qualification requirements to support local consultants</p> <p>Ugandan consultants face competition from foreign entities for work. Some stakeholders highlighted qualification criteria in bidding documents which</p>	High – short term impact	National and municipal government agencies, donors and

	<p>state specific track records and periods of experience which effectively exclude the Ugandan companies from the competition. The procurement requirements should be reviewed and amended to enable more local consultants to qualify. Where specific expertise is required that may not be available locally, mechanisms for joint ventures or partnerships should be explicitly outlined which facilitate knowledge and skills transfer to local consultants in these specific areas. This needs to be policy driven and build on the current local content requirements, as the market forces are not currently enabling knowledge transfer and capacity building.</p>		international investors
Consultants	<p>Carry out audit of professional, technician and trade expertise</p> <p>The number of registered engineers in Uganda is relatively low on a per-capita-population basis. It is likely that there are similar inadequacies in terms of registered architects, and other professionals, technicians and skilled personnel. It was not possible to find data on the number of persons any of the various professions and skills. An audit of relevant categories of construction expertise and maintenance of a construction personnel database should be undertaken.</p>	Medium – medium to long term impact	UCICO
Consultants	<p>Update educational syllabi to align with knowledge gaps</p> <p>The syllabi of the educational programmes in construction at all levels (supervisory, technician, and tertiary) should reflect recent developments in global practice as well as current needs in the industry in Uganda. This should include effective coverage of sustainable construction in a Ugandan context, stakeholder management, ethics and social responsibility and aspects of information and communication technology applications such as building information modelling (BIM).</p>	Medium – long term impact	MoE, MoWT, MoLHUD, UIPE, UNABCEC
Contractors	<p>Improve access to contract opportunities for local contractors</p> <p>The CrossRoads programme sought to support local contractors accessing public procurement opportunities. This is a critical objective to enable local contractors to build their own capacity by delivering construction projects and being paid for them. A support programme based on the success of Crossroads, should be developed with broader stakeholder engagement to suit the needs of the wider construction industry.</p>	High – medium and long term benefits	National and municipal government agencies, donors and international investors

Contractors	<p>Enhance vocational training programmes</p> <p>Many technical institutes have been upgraded into universities. Thus, Uganda faces the possibility of having an inverted skills pyramid. There are key skills shortages in the industry, and the vacancies are being filled by foreigners. There is the need for systematic measures to address this. A skills gap analysis should be undertaken, and mechanisms developed to develop the critical skills in acute shortage.</p>	High – medium and long term benefits	Universities, vocational institutes, UIPE, UNABCEC, MoWT
Contractors	<p>Formalise skills certification</p> <p>Trade skills certification processes should be formalised to establish benchmarks for quality and to satisfy tender requirements locally.</p>	Medium – medium term benefits	PPDA, vocational institutes, UNABCEC
Contractors	<p>Formalise contractor registration</p> <p>An exercise is underway (under the extended CrossRoads programme) to develop a contractor registration and classification system for the road sector. This should be extended to include contractors across the industry and be hosted by an appropriate statutory body such as the Ministry of Works and Transport.</p>	Medium – medium term benefits	UCICO, MoWT
Institutions & Associations	<p>Form Uganda Construction Industry Commission (UCICO)</p> <p>UCICO is a construction industry development agency proposed in the national construction industry policy. The formation of the long awaited commission is quite imminent, and the industry expects it to make a major difference. It will be important to equip the commission with the necessary statutory powers, organisational prestige, qualified personnel and operating resources to be a truly executive agency in the context of the construction industry in Uganda.</p>	High – short, medium and long term impacts	National government, UCICO
Institutions & Associations	<p>Enhance professional development for consultants</p> <p>Provision should be made to train graduate architects and engineers and providing them with the necessary experience to seek registration – the EU funded programme to support the UIPE is aiming to address this for engineers.</p> <p>The professional institutions such as the Uganda Institution of Professional Engineers (UIPE) and Uganda Society of Architects (USA) have the potential to contribute to the building of capacity and attitudes within the construction industry to enhance performance. Capacity building programmes which have been implemented for UIPE could be replicated</p>	Medium – medium and long term impacts	UIPE, ERB, USA, UNABCEC

	and extended for other institutions such as USA. Collaboration among them should also be fostered.		
Institutions & Associations	<p>Further support to Uganda National Association of Building and Civil Engineering Contractors</p> <p>The capacity of UNABCEC was enhanced under the CrossRoads programme. The association now has a good name, and it has the potential to play a major part in improving the performance of contractors. It would benefit from further development with assistance to undertake the initiatives outlined in its strategic plan.</p>	High – short, medium and long term impacts	UNABCEC, national and municipal public sector clients
Institutions & Associations	<p>Expand Roads Industry Council to embrace whole industry</p> <p>The RIC embraces the major stakeholders of the road sector. The industry would benefit if one umbrella organisation could be formed for the whole of the construction industry in Uganda. As many of the stakeholders are cross sectoral, it is recommended that the RIC is expanded to include the building sector and wider industry as a whole.</p>	High – short, medium and long term impacts	UCICO
Civil Society	<p>Better community involvement</p> <p>The community can be given a greater level of involvement in projects. Ownership by the community can be an effective tool to reduce the impact of lack of capacity to enforce regulations. The community can be given greater education and awareness, and the encouragement to assume responsibility for assets such as roads and schools provided for them. Once engaged, communities can support the filling of institutional capacity gaps through self-policing. For construction projects, this starts with the planning process (refer to recommendation under Planning related to the development and sharing of neighbourhood plans).</p>	Medium – short, medium and long term impacts	Municipal and district authorities, community groups
Civil Society	<p>Develop asset management handover strategy</p> <p>Uganda does not yet have an asset management culture, especially with respect to buildings. Such skills need to be developed. Designers and builders should develop mechanisms to educate users of facilities to use them effectively; and clients should be made aware of the merits of life-cycle considerations with respect to construction.</p>	Medium – medium term impact	Clients, MoWT, UNABCEC, UIPE



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