Rwenzori Region

Infrastructure and Services Sector Investment Profile

2020

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Acronyms

ATIS	Alliance for Trade in Information Technology and Services
B2B	Business-to-Business
BOO	Build Own and Operate
BOOT	Build Own Operate Transfer
BOT	Build Operate and Transfer
BPO	Business Process Outsourcing
DRC	Democratic Republic of Congo
DSCR	Debt Service Coverage Ratio
DUV	Digital Uganda Vision
EAC	East African Community
EBTC	European Business and Technology Centre
EMPEA	Emerging Markets Private Equity Association
EPC	Engineer, Procure and Contract
FDI	Foreign Direct Investment
HDI	Human Development Index
ICT	Information and Communications Technology
ICTAU	ICT Association of Uganda
JLSO	Joint Logistics and Support organization
LGs	Local Governments
LRT	Light Rail Transit
MDAs	Ministries, Departments And Agencies
NBI	National Backbone Infrastructure
NBRB	National Building Review Board
NDP II	National Development Plan II
NIISP	National ICT Innovation Support Program
NITA-U	National Information Technology Authority Uganda
NTMP	Ntional Transport Master Plan
OMT	Operate Maintain and Transfer
OPIC	Overseas Private Investment Coorporation
PPP	Public Private Partnership
PSC	Public Sector Comparator
PSFU	Public Sector Foundation Uganda
ROE	Return on Equity

RCDF	Rural Communication Development Fund
SDG	Sustainable Development Goals
SME	Small and Medium Enterprises
SWOT	Strength Weakness Opportunities and Threats
TIE	The Indus Entreprenuers
UEPB	Uganda Export Promotion Board
UIA	Uganda Investment Authority
UCC	Uganda Communication Commission
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UNRA	Uganda National Roads Authority
URF	Uganda Road Fund
USD	United States Dollar
UBPOA	Uganda Business Processing Outsourcing Association
VFM	Value for Money
WTSDP	Works and Transport Sector Development Plan

01

Executive summary

Executive summary

The adoption of a Public Private Partnership (PPP) approach presents opportunities for investors within the region in the areas of ICT Parks, Physical market in Kasese and Ntoroko districts, Road Networks, a bridge at Budiiba in Ntoroko district and the construction of an International Airport in Kasese district to open up the region to increased economic growth and development opportunities. It also provides an anchor for other sectors to grow thereby stimulating a trickle down effect across the economy. Moreover, for this approach to succeed, the Government of Uganda has to incentivise international players to invest in the region through tax breaks to make it possible to attract competent partners to the region.

There is a growing need to ensure access to information, which is crucial in the development of the region as it empowers the community to access services. The region requires new industries, technology and infrastructure to realise the goal of sustainable development through capitalising on the region's geographical positioning. In addition, a critical mass of transport infrastructure is crucial in accelerating the region's economic growth given that well-developed transport infrastructure will play a key role in improving the transport connectivity of the region. Investment in maintaining and development of productive infrastructure will contribute to a reduction in the cost of doing business, increase productivity, inclusiveness and well being of the Rwenzori region population. Prioritising investment in infrastructure has potential to unlock productivity in various sectors within the region like agriculture, tourism and also ease accessibility to regional markets.

It is on this basis that the Uganda Investment Authority together with United Nations Resident Cordinator's Office have led the development of the Infrastructure Sector investment profile. The Investment profile will inform potential investors of the available sustainable investment opportunities in order to fully exploit the region's potential and promote socio-economic transformation. This is in support of the country's strategy of implementing private sector-led economic interventions to address unemployment and pave the way for Local Governments to generate their own revenue in order to deliver decentralized services to the people within the region.

This investment profile draws on extensive literature review as well as qualitative interviews with key informants within the region to describe the investment opportunities in infrastructure within the Rwenzori region. The investment opportunities identified as part of the detailed consultation processes within the regions coupled with the review of secondary data are four:

1. Establishment of an Information Communication Technology (ICT) park;
2. Establishment of Budiiba bridge in Ntoroko district,
3. Upgrading of Kasese Airport; and,
4. Establishment of a Physical Market (in Kasese and Ntoroko) along the Border with the Democratic Republic of Congo.

For each of the investment opportunities identified above, financial models developed as part of this profile showing the cashflows, rate of return for investments, breakeven and sensitivity analysis, and the internal rate of return for an investor looking to invest in infrastructure in the region. The returns derived from the finance analysis are considered acceptable to attract both local and foreign investors into the region. Moreover, additional government incentives will be important to accelerate foreign direct investments within this sector.

The profile also details some of the environmental and social considerations, policy, legal and institutional framework that needs to be taken in to account. The profile also provides details on the enabling environment and market across the different investment ventures.

02

Introduction

Introduction

2.1 Background to the assignment

The Rwenzori region is a border region with the Democratic Republic of Congo found in mid-Western Uganda and it is comprised of eight districts, namely, Kabarole, Kasese, Bundibugyo, Ntoroko, Kyenjojo, Kyegegwa, Bunyangabu, Kamwenge and Fort Portal municipality. It has a population growth rate of 3% with approximately 3 million people and over 320,000 households. The Rwenzori region is endowed with diversified riches in natural resources (fertile land, minerals, forestry, wildlife, and energy) as well as being contiguous to 5 countries of the Great Lakes region (Democratic Republic of Congo, Rwanda, Burundi, Tanzania and Zambia), providing significant potential for development, regional cooperation and economic integration. This potential remains under-exploited due to several factors including, among others; poor physical and economic infrastructure, persistent insecurity exacerbated by the presence of armed groups and transnational organized crime, and insufficient levels of foreign and domestic private investment in the region.

The government of Uganda is desirous to transform the region from one ravaged by conflict to a thriving conomic zone by fully exploiting the region's economic potential in order to improve the quality of life of its people. UN in Uganda seeks to support the government of Uganda in preparing evidence-informed promotional materials for investment in the Rwenzori region. It is envisaged that this will contribute to the attraction of sustainable investments to exploit the region's potential and promote socio-economic transformation in the region in support of the country's strategy of implementing private sector-led economic interventions, tackling unemployment and paving the way for Local Government to generate their own revenue in order to deliver decentralized services to the people.

2.2 Objectives and scope

The overall objective of the assignment is to generate evidence-informed and well-packaged investment profiles/bankable investment projects (including short videos) that will attract the interest of foreign and local private sector and stimulate private investment in Rwenzori region. The report focuses on Infrastructure and services within the Rwenzori region.

The specific objectives include, inter alia, the following;

- To document the socio-economic characteristics of the region, including Government/Local Government investments such as infrastructure and services;
- To document investment opportunities and the level of investment that would be required for successful business at each level and return on investment, including capital investment requirements, source and supply of equipment and raw materials, demand and market analysis, break-even analysis, by sector;
- To construct detailed financial models outlining the cash flows, profit and loss and balance sheet for at least five years with internal rate of return, return on investment and all indicators given for each project;
- To carry out an actor mapping, including on-going and planned major investments (both public and private), bearing in mind their linkage to potential investments;
- To document the enabling environment and incentives (political, legal, institutional, Economic, social);
- To document the necessary policy, legal and institutional support services that Government will need to put in place to fully exploit the potential;
- To document major strengths, weaknesses, opportunities and threats for each of the proposed projects and risk mitigation strategies;
- To carry out a sensitivity analysis on business case scenario (worst, normal and best-case) with respect to changes in macroeconomic variable's/ environment;
- To document the available financing options for the projects and the costs for such financing;

- To document the human resource options, including whether or not there is local expertise to supervise and manage the identified projects, and;
- To propose tools to be used to monitor the returns on each investment project and suggestions on the most appropriate tools with reasons fully explained.

2.3 Methodology and approach

The approach was tailored to ensure appropriate coverage of scope of work outlined in the Terms of Reference and comprised the three phases below:

- Inception/planning phase mainly characterised by understanding the business environment, and documentary review;
- Execution and fieldwork characterised by detailed financial modelling and environmental and stakeholder analysis; and,
- Reporting involving summarisation and compilation of the report.

The approach was consultative in nature to complement the document review and data analytics. Extensive field visits with various district leaders and investors were conducted within the Rwenzori region. The inception phase involved working closely with the Uganda Investment Authority (UIA), agri-LED program and other pro-poor projects currently being implemented in the region.

Development of the investment profile for the infrastructure and services sector including detailed finance models to support the investment profiles began.

2.4 Report format

The report is structured as follows:

Section 1: Executive Summary
Section 2: Introduction and Background to the Assignment
Section 3: Social and Economic Characteristics
Section 4: Situational Analysis
Section 5: Investment Memoranda
Section 6: Demand Analysis and Stakeholder mapping
Section 7: Policy, Legal and Institutional Framework
Section 8: Enabling Environment
Section 9: Necessary Policy, Legal and Institutional Framework
Section 10: Financing Options
Section 11: Personnel Planning
Section 12: Social, Economic and Environmental Sustainability
Section 13: Support Pre-/Post-Investment
Section 14: Risk Assessment

The report also includes appendices to provide more information on the content.

03

Social and economic characteristics

Social and economic characteristics

3.1 Social factors

Population growth

Rwenzori is a border region with the Democratic Republic of Congo found in mid-Western Uganda. The region consists of eight districts namely Kabarole, Kasese, Bundibugyo, Ntoroko, Kyenjojo, Kyegegwa, Bunyangabu, Kamwenge and Fort Portal Municipality.

The region has a population of approximately 3 million people and the population is expected to grow at a rate of approximately 3%. The high population growth rate in the region is also potential for a large emerging consumer market and human resource that if leveraged can provide significant growth opportunities.[1] The disadvantage, however, with the growing population is that it could decrease per capita land availability for setting up the necessary infrastructure.

Table 2.1 Population projections for 2019 for each district within the region

Rwenzori Region	Census Population Year	Mid-Year Population Projections				
	2019	2020	2021	2022	2023	2024
Bundibugyo	256,800	263,800	270,800	278,924	287,292	295,910
Kabarole	331,100	337,800	344,500	354,835	365,480	376,444
Kasese	776,100	793,200	810,400	834,712	859,753	885,546
Kamwenge	323,600	335,200	347,400	357,822	368,557	379,613
Kyenjojo	506,500	525,400	544,800	561,144	577,978	595,318
Kyegegwa	408,700	441,000	475,600	489,868	504,564	519,701
Ntoroko	74,500	76,000	77,700	80,031	82,432	84,905
Bunyangabu	190,700	195,100	199,500	205,485	211,650	217,999
Total	2,868,000	2,967,500	3,070,700	3,162,821	3,257,706	3,355,437

Source: *Uganda Bureau of Statistics 2019 Statistical Abstract*

Age distribution

Approximately 51.3 % of the region's population are individuals aged between 14- 64 years. [2] This requires an expansion of social services within the region and creates an opportunity to absorb the growing youth population within the labour market. Such an age demographic will easily embrace technology use in furthering the socio-economic transformation of the region.

[1] Uganda Bureau of Statistics 2019 Statistical Abstract page 188
[2] 2016/2017 Uganda National Household Survey page 12

Ethnicity

The Rwenzori region is multiethnic and comprises of the Bakiga, Basongora, Bafumbira, indigenous Batooro, Batagwenda, Banyarwanda, Bakonzo, Bamba, Banyabindi.[3]

Education

The net enrollment ratio for Primary Schools in the region for the period 2016/17 was 73.4%, the net enrollment ratio for Secondary Schools was 23.8%. There are about 67.8% people aged 18 years and above who are literate within the region.[4] The Rural Communication Development Fund (RCDF) is working to increase digital skills through the provision of financial and technical support to rural areas. The region also has two universities namely Mountains of the Moon and Uganda Pentecostal University as well as a number of learning centres for other leading universities. Education is vital for ensuring a full and productive life to all individuals and to the realization of sustainable development.

3.2 Economic factors

Land use

In Rwenzori region, there are varied forms of land use namely: cash crop farming, subsistence crop farming and cattle rearing. In regard to cash crop farming all the districts within the region grow Robusta Coffee with the exception of Ntoroko and Bundibugyo, which grow Arabica Coffee, Bundibugyo grows Cocoa, Kyenjonjo and Kabarole-Tea, Kasese grows cotton and coffee. The Basongora of Kasese and Batuku of Ntoroko and Bundibugyo are mainly cattle keepers. These are economically-viable undertakings that can be developed through agro-industrialisation as well as promote trade for both local and external markets.[5]

Natural resources

Rwenzori region has a variety of natural resources such as fertile volcanic soils, ample and reliable rainfall, water bodies, rich forest cover, mineral deposits ranging from copper and cobalt in Kasese, limestone in Kamwenge and Oil deposits in the Albertine region around Lake Albert. The discovery of oil and drilling has potential to stimulate infrastructure development and increase business volume in the region. The region also has huge tourism potential with some of the leading tourist destinations such as Queen Elizabeth, Mountain Rwenzori and various other national parks. The Rwenzori region is contiguous to five countries of the Great Lakes Region (Democratic Republic of Congo, Rwanda, Burundi, Tanzania and Zambia), providing significant potential for development, regional cooperation and intergration.[6]

Existing infrastructure

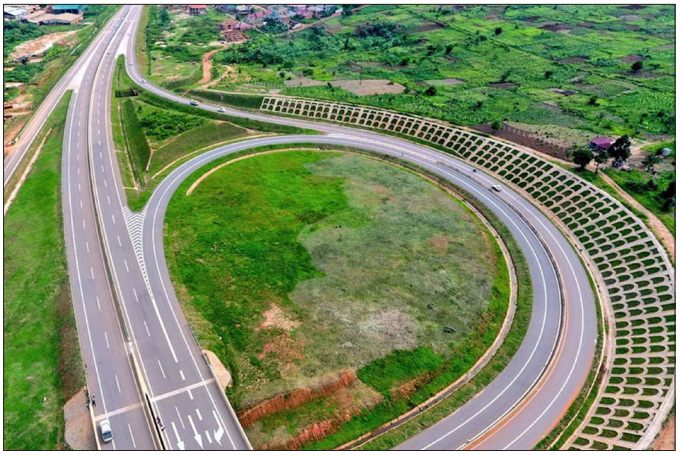
Electricity/Power generation potential

The region has great potential of developing electricity (power) given that Kasese district is the second largest supplier of hydro electric energy in Uganda after river Nile in Jinja with five hydroelectric power plants on rivers Mubuku, Nyamwamba, Nyamughasani and Lhubiriha with a combined production capacity of at least 30 megawatts, as well as the Mpanga Power Station, the 18 megawatts (24,000 hp) mini hydroelectric power project. The production of hydroelectricity within the region has the potential to spur sustainable economic development as well as increasing supply of electricity for agro-processing, industrialization and other development programs.[7]

[3] Environment & Development Series 15 Third World Network page 5
[4] 2016/2017 Uganda National Household Survey pages 31- 35
[5] Contextual Analysis of conflicts in the Rwenzori Region report page 19
[6] Joint MFS II Evaluation; Civil Society Strengthening page 2
[7] 2015/16-2019/2020 Kasese District Development Plan page 48

Road network

The region can be accessed through the various districts by road for instance Kamwenge District can be accessed from Kampala via Masaka-Nyakahita-Kazo-Ibanda-Fortportal Road or via Mityana-Mubende-Kyenjonjo-Rwamanja Refugee Settlement. The region can also be accessed by use of helicopters. The railway line through Kamwenge district is no longer functional but is under consideration in Uganda vision 2040.Water transport can be introduced on Lake George connecting to Rubirizi and Kasese districts. [8]



[8] 2015/16-2019/2020 Kamwenge District Development Plan page 24

04

Situational analysis

Situational analysis

4.1 SWOT analysis

The SWOT analysis is based on the Infrastructure sector in the Rwenzori region as detailed in the table below.

SWOT Analysis	
Strengths	**Weaknesses**
1. Government will to support investment in infrastructure development in the region. During the period 2018/19 UGX 4.8 trillion was allocated to the Works & Transport Sector;1 2. Recognition of the ICT sector as a priority sector under the Vision 2040 and National Development Plan (NDP III); 3. Private sector involvement in the Implementation of ICT Programmes; 4. A policy, legal and regulatory environment geared towards attracting investments in ICT; 5. Existence of ICT Infrastructure; 6. Cyber laws developed and frameworks operationalise them in place; 7. International recognition of Ugandan ICT initiatives e.g the Rural Communication Development Fund (RCDF) Program; 8. Existence of industry associations to address common challenges; 9. High-Level political support for use of ICT in service delivery.	1. Inadequate public funding of the ICT sector. 2. Inappropriate institutional framework for the ICT Sector to meet the evolving needs of the ICT sector; 3. Regulatory role split between two bodies UCC and National Information Technology Authority Uganda (NITA-U) amidst convergence of technologies; 4. Inadequate ICT Infrastructure the National Backbone Infrastructure consist only of 5000 kilometres of optic fibre and does not cover some areas. 5. High cost of ICT services relative to other countries in the region for instance the cost of bandwidth in Uganda ranges between USD 300 to USD 600 for 1 Mbps per month compared to USD 80 to USD 150 Mbps per month in most neighbouring countries. 6. Poor road infrastructure in the region resulting in high transaction costs. 7. Low levels of awareness a big section of the population, including Ministries, Departments and Agencies (MDAs), Local Governments (LGs), key functional areas such as health, banking, procurement, education, commerce are not fully aware of the potential of ICT in socio-economic transformation of the country. 8. Inadequate ICT related research, innovation and development as a result of insufficient linkage between academia and industry to ensure relevance of research done; 9. Inadequate power supply and other support infrastructure; 10. Inadequate human resource in the ICT Sector; 11. Limited capacity to enforce and monitor compliance with policy, laws and regulations; 12. High costs of land acquisition for the right of way for the development of infrastructure projects; 13. Unfavourable land law which affects budget performance, especially for externally-financed projects in terms of project costs and completion period.

SWOT Analysis	
	14. Weak local construction industry in terms of technical and financial capacity, most local contractors are not commercially well-organised and lack the necessary capacity in terms of equipment and skilled manpower to undertake infrastructure projects; 15. Complex land tenure systems making it difficult to acquire land for investment in large infrastructure projects.
Opportunities	**Threats**
1. Dynamic and vibrant Information Technology Sector given that the sector has grown steadily over the last few years. 2. Large emerging consumer market and readily-available labour force within the region given that population is expected to grow at a rate of 3% if leveraged could provide significant opportunities for growth3 4. Uganda is still a net importer of ICT Services; 5. Globalization and linkage of ICT Markets; 6. International for a on ICT such as International Telecommunication Union (ITU) , Pan African Postal Union (PAPU), East African Communications Organisation (EACO) with opportunity for participation; 7. Youthful population in the region which is responsive to the change and appreciates ICT; 8. e-Services and e-Government in critical sectors such as governance, Justice, Law and Order Sector (JLOS), Education, Health, Mineral Development and Agriculture; 9. International collaborations on information security; 10. Regional and international initiatives on research and innovation, information security, e-Government, spectrum management as well as ICT promotion among others; Green ICT; 11. Increased civil society participation in promotion and adoption of ICTs; 12. The region's location at the centre of the Great Lakes region, and economic integration in the East African Community provides access to a vast regional market.	1. Limited local and relevant content. The content available on the internet is mostly foreign and does not meet the needs and aspirations of the majority and would- be consumers which negatively affects the uptake of e-services. 2. Overdependence on imported software solutions which are costly; 3. An under-developed software industry; 4. High taxes on the ICT Sector; 5. Lack of incentives to attract new investments; 6. Destruction of infrastructure and vandalism and theft; 7. Brain drain of ICT professionals; 8. Adverse climate changes like water rising above sea level, floods,landslides

4.2 Response to the SWOT

The Government of Uganda has designed the National ICT Initiatives Support Programme (NIISP) to facilitate the creation of an ICT Innovation eco system and market place for Ugandan Innovative digital products. NIISP primarily aims at facilitating growth and development of software applications and innovations industry.

The Government of Uganda (GoU) is finalizing the Digital Uganda Vision (DUV) which is aligned with the country's Vision 2040, aiming at building a "digitally-enabled modern society that is secure, innovative, and transformative realised through technology -based empowerment. The DUV sets an overarching framework for providing direction to National ICT policies and further to show, how digital services can be used to achieve inclusion, sustainable development, economic progress and poverty eradication. The five pillars of the vision include; Integrated Digital Infrastructure and Connectivity, Digital Services, Cyber-security, Privacy and Data Protection, Digital inclusion and Empowerment, Content Development, Innovations and Product Development.

The government of Uganda has developed the Uganda National Physical Development Plan (NPDP) 2018-2040 as a strategy to resolve the conflicting sectorial pressures on the uses of land, which is a finite resource as the population grows and the country modernises.

In order to address weak local capacity in the construction sub-sector, Uganda has embarked on implementation of a local content policy Buy Uganda, Build Uganda to affect local capacity development.

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(NPDP) 2018-2040 as a strategy to resolve the conflicting sectorial pressures on the uses of land, which is a finite resource as the population grows and the country modernises.

05

Investment memoranda

Investment Memoranda

5.1 Establishment of an ICT Park (s)

Location: Rwenzori Region	**Applicable Districts:** Kasese, Kabarole, Kamwenge and Kyenjojo
Sector: Infrastructure	**Investment Category/Value Chain:** Establishment of an Industrial Park including an ICT Park
Area: Total 241,038KM2; Land: 197,100KM2; Water 43,938KM2	**Climate:** Tropical: generally rainy with two dry seasons (December to February, June to August).
Terrain: Mostly plateau with rim of mountains	**Investment instrument:** Public Private Partnership
Land Use: Agricultural land: 71.2%: forest 14.5%; other 14.3% (2019 est.)	**Targeted Investor:** All
Total Revenue: N/A	**EBITDA:** N/A
Enterprise Value: N/A	**EBITDA Multiple:** N/A

Background to IT Park business

Technology Parks in the developing countries have demonstrated that industry-specific infrastructure of world-class standards coupled with engineering and scientific talents at a fraction of the costs would represent a "product offering" of exceptional value for domestic and international companies. Given the price such companies will be paying for such value-added services and facilities, Technology Park can generate decent returns for the owners over a long term.

A Technology Park, at the core, is an ensemble of physical facilities and a portfolio of services. The physical facilities planned, the services provided and the quality as well as price of the total package offered should contribute to enhancing the competitiveness of occupants who would like to move into the Park. Getting this range-quality-price matrix of the facilities and right services offered holds the key to the long-term success of the Technology Park.

Technology Parks need to develop networks, alliances, partnerships and opportunities with other Parks, Universities and Research Institutes. Such collaboration itself provides a source of competitive advantage.

A Technology Park needs to be built & promoted as iconic 'premium product'. It offers a recognizable identity, a superior brand which supports the occupants and their products. It becomes easier to attract customers, suppliers, employees, business partners and media. This provides great leverage to small and medium enterprises. The partnerships, the cooperation, the synergy and the image that a Technology Park helps promote, and the mentoring the Park management provides to those who require it give its occupants considerable advantage, which units of comparable sizes outside the Park have to do themselves.

Business model for IT Parks

The role of government ranges from providing land &/or funds for developing IT Parks to managing facilities post-commissioning. The private sector partner on the other hand brings in experience and expertise in construction, financial resources, and better marketing skills. Based on ownership and management of IT Parks, different business models can be worked out for developing and operating such Parks.

It is observed that the government is best-suited to facilitate the development of IT Parks, rather than developing and managing IT Parks themselves. The government can facilitate IT Park development in the following ways:

Create enabling infrastructure, such as connecting roadways, main water supply lines, and constructing sewage and drainage lines to the IT Park. Help Park developers acquire additional land. It is very difficult for the Park developers to buy such large chunks of contiguous land from the market. The government can act as a facilitator in this respect, and assist the private players in acquiring requisite land. In case the land is owned by the government, it can further help the Park developer by taking an equity stake in the project, which is equal to the cost of the land and provision of surrounding infrastructure.

Develop enabling policies and regulations for both Park developers and occupants for ensuring that the objective with which the Park was established is fulfilled.

IT Parks are best-managed and operated by the private players, given their flexibility in operations and decision making. The private sector is best suited for customer facing services and can commit to service level agreements with the Park occupants. The success of any IT Park is measured by its ability to attract occupants and retain them by providing services as per their expectations. Private sector IT Park management organizations are also capable of providing a number of value added services to the occupants, such as support for marketing, recruitment support, access to external finances such as venture capital and business angels, establishing networks with other companies and/or universities, developing business plans, Technology transfer, patenting and IPR, and business education and training. These services are usually availed by the small & medium enterprises in the IT Parks as well as those availing incubation facilities. This also helps the government's objectives in encouraging SME sector development in the IT sector.

Returns on IT Parks

It is observed that returns for IT Park developers can comprise of two components:

Returns from the core IT Park infrastructure including multi-occupant buildings and build-to-suit facilities for large anchor investors, which usually accrue to the developer in the form of long term lease premium payment, followed by periodic charges levied on occupants for the facilities management services. In other cases where IT Park facilities are offered on rent, the periodic payment also has an additional component towards facilities management charges. While the usual returns from core IT Park facilities vary from country to country, it is observed to range between 12 % to 18 % per annum.

Returns from ancillary infrastructure: In some of the IT Parks (like Hitec City, Hyderabad and CFZ, Malaysia) the IT Park developer is also mandated to develop ancillary infrastructure like retail and residential complexes, hotels and exhibition centres. The returns from these investments are usually higher than returns on core IT Park infrastructure about 20%–30%.

Consequently, many governments encourage IT Park developers to invest in a combination of core and ancillary IT Park infrastructure, so that the overall returns on their investments are attractive. This does not, however, alter the risk perception of the project, as both components are inter-dependent with demand for ancillary infrastructure being directly linked to the level of success of the IT Park. It is also observed that one of the primary tools used by policymakers for ensuring viability of core IT Park investments is allotment of land at subsidized rates than that allowed for residential and/or commercial end use at the adjacent Land.

From the perspective of government policymakers, the major component of return from IT Park investments includes:

Returns in the form of direct and indirect taxes on incremental income generated by both companies as well as their employees. Many governments usually provide various fiscal concessions on this front during the initial period to ensure sustainable viability of the sector in the medium to long term so as to ensure 100 % occupancy at IT Park.

Positive spill-over to other sectors through generation of additional employment opportunities; higher per capita income manifesting in higher spending in sectors like retail and real estate, which in turn lead to generation of further employment.

Increase in employment: For every job created in the IT sector, an additional three to four times non-IT related jobs have been generated (construction, canteen, drivers, technicians, other services such as courier, finance, legal, marketing, finance etc).

Retail investments: In many countries, growth in IT sector has led to the growth in the adjoining retail sector. For example, in developing countries like India, organized retail has grown at the rate of 25%–30% for the last few years. Further, an average Indian urban household spent more than 20% of family income on recreational services/ goods such as movies and theatres, books and activities, and eating out at restaurants. One of the reasons for such growth was the growth in the IT sector and the corresponding higher per capita income.

Real estate: The growth of IT sector fuels the growth in the adjoining real estate sector. The government gets large funds on account of property tax that took on enhanced rates of real estate over longer durations.

In IT Park context, technology transfer occurs when a local IT company partners with a global IT company and commences operations in the IT Park. While the global player contributes with technical know-how, design and drawings, etc., the local partner provides knowledge about the local conditions and markets, and access to local skills and resources. It is generally-found that where proprietary know-how requiring intellectual property rights protection is needed, global players prefer to operate through wholly-owned subsidiary entities, which allow them to retain complete management control over the local entity.

The other significant spill-over effect is the skill development of the local population. Given the requirement of skilled local resources by IT Park occupants, the locally-educated population acquire the necessary skills required to gain employment by taking courses in colleges, universities, or computer training institutes. Organizations also have their own training/skill development programs which further help the local employees to develop skills.

Value for money assessment

The purpose of Value for Money (VFM) analysis is to inform governments' decision on whether to implement proposed projects as PPPs, or through other more "traditional" forms of public procurement. To that end, VFM analysis typically involves a combination of qualitative and quantitative analysis.

Qualitative analysis:

Qualitative VFM analysis typically involves sense-checking the rationale for using PPP— that is, asking whether a proposed project is a type likely to be suitable for private financing. This often takes place at a relatively early stage of PPP development.

Quantitative analysis:

Quantitative VFM analysis involves comparing the value for money of a proposed PPP (or actual bids received) with a "Public Sector Comparator" (PSC) — that is, a model of the project if implemented through traditional public procurement.

A VFM assessment measures whether a PPP is the best option for a particular project. In the case of proposed ICT Park, the estimated costs-benefits of the traditional EPC Contract and PPP options would be compared. The VFM for a project is the difference between these two costs. The goal of a PPP is to provide value; to do so, the PPP must lead to better risk-adjusted benefits — measured by net present value — than the traditional EPC method over the life of the contract.

Rationale for favouring PPP option in case of ICT Park Uganda

In case of PPP route, the requisite capital is estimated through project cash flow by upfront sell of occupancy rights. Whether the Concessionaire is successful in getting the estimated cash flows, it doesn't affect project delivery. Traditional route would find it difficult to get such quantum of project cash flows.

Operation and Maintenance cost is an annual cost. It would be absorbed by lease rentals and other revenue. However, revenue risk is borne by the Concessionaire in PPP route, which would devolve on Government in traditional route.

Private sector Concessionaire is better-placed to attract Anchor Investors (key occupants) as well as other occupants. Promotion and marketing efforts in case of traditional routes would again require funding and Governmental limitations would dampen the efforts.

Concessionaire would build-in flexibility in revenue terms, which could be discretionary as well as negotiable. Adoption of such flexi-terms is very difficult for the government. This would add to the difficulties in attracting the occupants.

ICT Park is a profitable sustainable business in long term perspective. Private entities would be willing and better placed to accommodate excess need of cash in the initial years and to reap lucrative profits in the later years, which is acommon business curve. For the government, it is difficult to accommodate need for excess cash, if any at all. Non-provision of such cash-needs could potentially lead to hamper business outlook and image, thereby curbing the prospects of future profits.

ICT Park is a Business-to-Business (B2B) service provision. It is not directly connected to critical daily needs of the common citizen. Performance risk would not have a direct bearing on sensitive provisions and immediate suspension of such provisions. While even the sensitive infrastructure such as water supply and power are executed through PPP route, ICT is a much safer bet.

Brand promotion is very important to attract occupants and propel the growth of more ICT Parks and SEZs in Uganda. Private sector is better-placed to aggressively promote the brand.

Using the PPP Route

Cost and Benefits from government perspective of investing in an ICT Park of 100 Acres of land per park:

Costs:

		USD Million	
		Value as per Cash Flow	**Risk Adjusted Value**
1.	Preparatory Costs	5.00	6.00
2.	Risk of Failure Valued		30.00
			36.00

Benefits:

		USD Million	
		Value as per Cash Flow	**Risk Adjusted Value**
1.	NPV of Tax	6.16	5.60
2.	NPV of Dividends	6.62	6.02
3.	Employment Generation	174.27	174.27
			186.91
	Net Benefit		**150.91**

Thus net benefits from PPP Route are substantially high as compared to traditional route where the GOU has used EPC contracting in implementing these types of projects. Considering higher success rate of PPP and incidental economic development such as development of ancillary business and propulsion of further growth, the benefits through PPP route could be much higher. PPP Route is hence recommended.

PPP options available

The most commonly used PPP options are:

BOT: Build, operate, and transfer

This is a form of concession/PPP, with an emphasis on construction of new, stand-alone systems. Government may or may not receive a fee or share of profits. Some of the BOT contracts are also supported by way of grant (viability gap funding) to enhance the feasibility of the project. Typical duration of the concession is more than 15 years.

OMT: Operate, maintain, and transfer

If the asset is already constructed and requires minimal refurbishment, the OMT concession option may be preferred. The government will receive an annual share of revenue or pre-decided royalty as determined by the bidding process. Typical duration is 10 to 15 years.

BOO: Build, own, and operate

This type of concession is used when the asset is akin to a production house or a factory such as a solid waste-based power plant, photo-voltaic solar power production, etc.

BOOT: Build, own, operate, and transfer

This concession is similar to BOO, with the difference that the facility is transferred to Government at the end of concession. This is not so common because the facility is used for its entire useful life.

Annuity:

If the project revenue is insufficient or revenue risk is too high to pass on to the private partner, Government undertakes to make an annual (or other interval) payment (the annuity payment) to the investor to enable recovery of the investment.

Build, Operate and Transfer:

If the construction cost is too high rendering the project unviable based on projected revenue, then the government pays for the construction (or part of it) upfront. When the nature of the project justifies the very necessity of the operator and the developer being the same party, this type of PPP structure is opted for. Typically this has been used in some of the Light Rail Transit (LRT) or Metro-rail projects.

Rationale for selecting an option

In case of IT Park, the following factors are important for the selection of the PPP structure:

IT Park projects are profitable and sustainable on stand-alone basis. This rules out the annuity structure as the revenue risk can be easily passed on to the private sector.

The key success factor is attracting an anchor investor (a giant IT firm, the occupant on land parcels) and another 3-4 highly renowned IT firms to set-up their offices-facilities in the IT Park. This implies that the SPV should not only be capable in financing the project, but also marketing the facility to the global IT firms. Thus build and operate features in the structure are well-justified.

Ownership is vested with the private investor when the land is owned by the private sector (not provided by the Government) and the government is merely the (sole) buyer of the product or services. Typically, power plants, oil-fields, refineries, food-grain-silos, cold storages, etc. meet these criteria.

Also, ownership with the private party is meaningful when most of the asset-structure can be dismantled and relocated in case of termination of PPP Contract. Abattoirs, ginning mills, sugar plants, etc. meet these criteria.

In case of IT Park, land is provided by the government and the asset is just the buildings. Ownership would be vested with the government throughout concession period.

Concession period depends upon requisite period for recovery of the investment, along with reasonable profits. It also depends upon usable life of the asset. For highways and ports, it is typically 20 to 30 years, without renewal option of the concession. For Airports, it is 30 to 50 years, with an option to extend it for another 30-40 years.

IT Park is a heavy asset investment with significant revenue risk. It may take up to 5 years to make it a preferred and popular destination. The investor would be willing to take the risk if the real super-profits on long term basis are available to him. In this case, 30 years Concession with the possibility of extension by another 20 years is justified. Only when such extension is possible, would the investor be keen to refurbish the building structures at regular intervals.

PPP Structure for the IT Park

From the above discussion it is clear that the recommended structure is BOT i.e. Build, Operate and Transfer.

Concession Period would be 30 years, with a suitable clause providing extension by up to 20 more years.

In the special company formed for the project (SPV i.e. Special Purpose Vehicle), Government may be a partner of 26% . This share would be in the form of land, surrounding infrastructure, forgoing revenue due to incentives & exemptions. Share could be further increased to 49 % by providing adjacent land for development of residential-cum-commercial colony, recreational, education and health infrastructure.

Primarily, the concession in terms of Tax Waiver for 12 years and Customs and Excise duty waiver during construction is necessary, considering the financial viability of the project.

Justification for using PPP Model

IT Park PPP can help governments overcome budget constraints in two ways: through bringing in upfront private financing for capital investment and by way of earnings from taxes, revenue shares and dividends.

PPPs can draw private financing and can also facilitate the achievement of higher levels of efficiency, thus improving the quality of infrastructure assets and services. PPPs can support the much-needed crowding in of private sector investment, while at the same time assisting the government to achieve its development objectives through improved use of assets and better service coverage and quality.

As per the World Bank report, the development of infrastructure in Uganda has been affected by the inefficiencies in the management of public investment. On average, 36 % of the planned expenditure over this period did not materialize, with the bulk of the recorded under expenditure being in the priority sectors of energy and transport. Challenges to the execution of budgets are exacerbated by overall inefficiencies in the investment process, significantly eroding the value of these investments, and hence reducing the overall value for money. It has been estimated that up to USD 300 million is lost annually due to inefficiencies in spending. Increasingly, economic growth has been driven by increased consumption. There are also indications that there has been a decline in the level of efficiency of utilization of public capital. These investment inefficiencies must be addressed to facilitate the achievement of an increase in the rate of accumulation of capital and thereby to facilitate significant positive socio-economic transformation. This will only be achieved if public expenditure results in higher levels of actual capital accumulation for each unit of investment.

PPP mode can generate higher levels of revenue, and it is often easier for this to be achieved if these services are managed and operated by the private sector rather than by the public sector. Public sector benefits by way of revenue share, stakeholder dividend and incremental taxes. Public sector also achieves macroeconomic goals of increased employment, rise in exports which results in healthier Balance of Payments and improved investment outlook of the country.

If the Government undertakes development of the project t, it will have to invest around USD 70 million, with presumptions mentioned at the financial model. This may increase depending on efficiency to attract anchor investor and other key occupants. Private sector is better poised to invest and attract the occupants.

Considering robust viability of the proposed IT Park and all the benefits mentioned above, PPP mode of delivery is strongly recommended for the proposed IT Park Project.

PPP projects require significant upfront capital investment, often with back-ended revenue profiles resulting in the need for longer contracts of duration 30 years or more. The availability of long-term financing is extremely limited in Uganda. Neither the commercial banks nor Uganda's single development bank have been able to play an active role in providing long-term finance for the country's development needs. Lines of credit have been provided to select banks by development institutions, but these can only be viewed as temporary solutions. Thus, more sustainable sources need to be developed.

IT Park infrastructure could be financed through foreign currency as the risk is naturally hedged because of dollar denominated revenue streams.

Project financing

From the financial model, it is evident that the project could be lucrative for the investor. However, as per the World Bank report, Uganda remains vulnerable to a number of exogenous shocks, including shocks related to fluctuations in the prices of its main exports and imports, regional insecurity, and volatile climatic conditions. In this view, the investment carries higher risk.

It is suggested that the government should facilitate the investor to approach International Finance Corporation (IFC) or similar agencies mentioned at Linkages for Debt funding as well as Equity participation. This would reduce financing cost and risk.

Financial analysis

The detailed financial analysis for an ICT Park within the Rwenzori region should be subject to an independent assessment that can be carried out during the actual feasibility phase of the PPP cycle.

Proposed strategic linkages

#	Item	Description
	Anchor Tenant	**Target Firms like Tata / Google / IBM / Microsoft/ Tech Mahindra**
1	Ascendas - Singbridge Group	Ascendas - Singbridge Group is Asia's leading sustainable urban and business space solutions provider with Assets Under Management exceeding SD20 billion. The Group undertakes urbanization projects spanning townships, mixed-use developments and business/industrial parks. Headquartered in Singapore, Ascendas - Singbridge has projects in 28 cities across 9 countries in Asia, including Australia, China, India, Indonesia, Singapore and South Korea.
2	UNIDO	UNIDO strengthens the contribution of the private sector to Inclusive and Sustainable Industrial Development (ISID) through fostering conducive business and investment environments and through implementing SME support programmes, including those promoting SME clusters and related technology transfer and diffusion. UNIDO seeks, through a combination of advisory and capacity building services, to strengthen national capacities for the creation and continuous improvement of a business environment. This allows the private sector to make a greater contribution to growth, employment and income generation.
3	Softbank Technology Fund / African Development Fund	Ideal for Funding of Infrastructure like TEC. Other infrastructure projects that were financed by the ADB at national and multinational levels such as the Senegal Virtual University Support Project (UVS), Cabo Verde Technology Park, Lesotho e-Government Infrastructure, Regional ICT centers of excellence in Mali and Rwanda respectively. It has also supported Main One and EASSY submarine cable projects, which have started yielding development results including triggering bandwidth increases in the markets they serve This experience gives the Bank a comparative advantage in the development of Technology Parks in Africa.
4	European Business and Technology Centre	The European Business and Technology Centre (EBTC) was constituted in 2008 by EUROCHAMBRES, the Association of European Chambers of Commerce and Industry. EBTC is actively supporting European innovations, technologies and solutions for the Indian market entry as a strategic advisor, from finding the right partner or project and facilitating collaborations and joint value propositions, to providing IPR advice, technology adaptation strategies, market exploration studies and inbound/outbound delegations.
5	World Bank/ EXIM / SBI Bank	For Viability Funding and creating enabling infrastructure and policies
6	EMPEA	EMPEA is the global industry association for private capital in emerging markets. An independent, non-profit organization, the association's membership comprises over 300 firms representing institutional investors, fund managers and industry advisors who together manage more than USD5 trillion in assets across 130 countries. http://empea.org/about-empea/

#	Item	Description
7	OPIC –Overseas Private Investment Corporation	The Overseas Private Investment Corporation (OPIC) provides businesses with the tools to manage the risks associated with foreign direct investment, fosters economic development in emerging market countries. OPIC helps American businesses gain footholds in new markets, catalyzes new revenues and contributes to jobs and growth opportunities both at home and abroad. OPIC fulfills its mission by providing businesses with financing, political risk insurance, advocacy and by partnering with private equity investment fund managers. OPIC maintains a robust portfolio of more than USD20 billion. This portfolio spans more than 160 developing countries including Africa.
8	TiE	The Indus Entrepreneurs (TiE), was founded in 1992 in Silicon Valley by a group of successful entrepreneurs, corporate executives, and senior professionals. There are currently 13,000 members, 2,500 charter members in 61 chapters across 18 countries. TiE's mission is to foster entrepreneurship globally through mentoring, networking, education, incubating, and funding. Dedicated to the virtuous cycle of wealth creation and giving back to the community, TiE's focus is on generating and nurturing our next generation of entrepreneurs. Economic wealth creation estimated at USD200 billion
9	Hive Co Lab	Tie-up with Makerere University & Industries USD 5 per day per seat. Free for Women. 10 % equity against free use of space Ihub Partners: Google, IBM, Microsoft, 1776. Venture Capitalists
10	VC4Africa	VC4Africa is a web based platform, connecting enterprises across the African continent with investors and mentors and creating a peer-to-peer mentoring network. It was started as a LinkedIn group in 2008 and has grown organically into what is now the largest online community of entrepreneurs and investors dedicated to building innovative companies in Africa. Operating as peer - to-peer network, the community has members in 159 countries and meetups have been hosted in more than 50 cities around the world. It offers free online tools, mentorship opportunities, and private deal rooms to help entrepreneurs navigate the investment process. Enterprises can pitch their companies with no fee, while investors pay a membership fee to be on the network. This ensures access for enterprises, ensuring support from idea stage.
11	Startupwave : Building a Virtual Ecosystem for Social Entrepreneurs	StartupWave is a virtual incubation platform that has been built as an infrastructure for the Indian startup incubation ecosystem, conceptualized by Intellecap in partnership with Government of UK's Department for International Development in India and GIZ on behalf of the German Ministry of Economic Cooperation and Development (BMZ). As a collaborative platform, it aims to "democratize incubation" and is a one-stop service, providing a blend of virtual and in-person support to take start-up enterprises from idea to investment stage. This platform is designed in consultation with and is being used by incubators, corporates, funds and startups.
12	Y Combinator	It is an Accelerator. Since 2005 they have funded over 1,464 startups. Y Combinator is a community of over 3,000 founders. Combined valuation of incubates over USD 80 B. Notable ones are Airbnb & Dropbox. Twice a year they invest a small amount of money (D120k) in a large number of startups. The startups move to Silicon Valley for 3 months, during which these firms work intensively with them to get the company into the best possible shape and refine their pitch to investors.

#	Item	Description
13	Microsoft Innovation centers https://www.microsoftinnovationcenters.com/locations	Across the Globe it has 100 centres. Within Africa, only 2 in Botswana & Tunisia.
14	NIIT Imperia Customized Programs for Organizations	NIIT Imperia excels in developing, organizing and administering customized training programs as per specific requirements of organizations. These training programs could be for your employees, business partners, dealers, retailers or customers and could be on Management Skill Development, Technology Management, Soft Skills or on Proprietary products/services. The "Synchronous Learning Platform" and our countrywide presence allows training programs to be launched on a Pan-India basis.
15	APTECH Computer Education http://www.aptechuganda.ac.ug/public/Aptech/about	Aptech is a Global Learning Solutions Company with a presence spanning 52 Countries, across five continents. Having trained over 7 million individuals to date, Aptech continues to play a key role in helping individuals and organizations adapt to the changing requirements of a knowledge-driven world. Aptech commenced its operations in Uganda in the year 1999 and over the years has trained over 17,000 students in East Africa. Our students across the world are mostly employed in Fortune 500 companies globally.
16	Makerere University	Tie-ups for Manpower. Introduce entrepreneurship courses. Create employable skill sets in large numbers. Explore commercializing research work initiated at graduate level.
17	Kyambogo University	
18	Kampala International University	
19	Nkumba University	
20	Muteesa Royal University	
21	Mountains of the Moon University	

5.2 Construction of bridge on River Semiliki at Budiiba

The construction of a bridge at Budiiba in Ntoroko is a critical to facilitate border trade and border crossings between Uganda and the Democratic Republic of Congo (DRC). The construction of a bridge could also be handled as a PPP project. This would however be best-suited if it is undertaken by the Government of Uganda. The actual PPP model to adopt can be determined more precisely during the feasibility study stage.

5.3 Road Construction across the region

The road network — especially between Fort Portal and Kasese and across the entire Rwenzori region — presents investment opportunities using the PPP mode of investment. A PPP arrangement facilitates the delivery of public goods since these construction can be achieved through government involvement and ownership. The actual PPP model can be determined at the feasibility study stage.

5.4 Construction of an International Airport

An International Airport in Kasese presents an opportunity to open up the region to the rest of the world. The airport would assist citizens of DRC looking for easier access to the western region as well as the interior parts of DRC. Just like the ICT Park, road networks and bridges, an International Airport would be better developed using a PPP approach. The actual mode to utilise can be best determined at the PPP feasibility study stage to determine the role and risk allocation across the various stakeholders.

5.5 Establishment of a Physical Market in Kasese

The amount of trade in goods and services that occurs across the border between the Uganda and the Democratic Republic of Congo (DRC) is significant especially in Kasese districts. The population engages in selling bananas, fish, chocolate, flour and several agricultural products to Congo. The Government of Uganda has signed a Bilateral Trade Agreement to facilitate free trade across the border between the two countries. In addition, Uganda's membership with the East African Community (EAC) creates an additional regional market for the produce from the Rwenzori region.

This cross-border trade is uncoordinated and the sellers have to travel long distances to access the sellers. There is a growing need to have a physical market designated at the border points where various buyers and sellers can meet and transact in an orderly and coordinated manner. This would be in form of a physical market close to the border between Uganda and DRC that can be constructed to meet the international standards. Over 98% of the respondents consulted within the region believe that such a market can help spur economic development and provide a steady source of employment and income for the vulnerable communities within the region.

It is on this basis that the Uganda Investment Authority together with United Nations Uganda have led the development of the regional Trade and Services Sector Investment Profile. The Investment profile will inform potential investors of the available sustainable investment opportunities in order to fully exploit the region's potential and promote socio-economic transformation. This is in support of the country's strategy of implementing private sector-led economic interventions to address unemployment and pave the way for Local Governments to generate their own revenue in order to deliver decentralized services to the people within the region.

This investment profile draws on extensive literature review as well as qualitative interviews with key informants within the region to describe the Investment opportunities in Regional Trade and Services within the Rwenzori region. The establishment of a physical market in Kasese near the DRC border will assist in spurring economic growth within the region. This should be done either by a private local investor or through international foreign direct investors through public private partnership.

5.6 Establishment of a Physical Market in Ntoroko/Bundibugyo

Establishment of another physical market in Ntoroko/Bundibugyo in addition to the market in Kasese can foster broader economic development within the Rwenzori region. The amount of trade in goods and services that occurs across the border between the Uganda and the Democratic Republic of Congo (DRC) is significant especially in Ntoroko/Bundibugyo districts. The population engages in selling bananas, fish, chocolate, flour and several agricultural products to Congo. The Government of Uganda has signed a Bilateral Trade Agreement to facilitate free trade across the boarder between the two countries. In addition, Uganda's membership with the East African Community (EAC) creates an additional regional market for the produce from the Rwenzori region.

This cross-border trade is uncoordinated and the sellers have to travel long distances to access the sellers. There is a growing need to have a physical market designated at the border points where various buyers and sellers can meet and transact in an orderly and coordinated manner. This would be in the form of a physical market close to the border between Uganda and DRC that can be constructed to meet the international standards. Over 98% of the respondents consulted within the region believe that such a market can help spur economic development and provide a steady source of employment and income for the vulnerable communities within the region.

It is on this basis that the Uganda Investment Authority together with United Nations Resident Cordinator's Office have led the development of the regional Infrastructure and Services Sector Investment Profile. The investment profile will inform potential investors of the available sustainable investment opportunities in order to fully exploit the region's potential and promote socio-economic transformation. This is in support of the country's strategy of implementing private sector-led economic interventions, address unemployment and pave way for Local Governments to generate their own revenue in order to deliver decentralized services to the people within the region.

06

Demand analysis and stakeholder mapping

Demand analysis and stakeholder mapping

6.1 Stakeholders

Stakeholders refers to those who need to be considered in achieving investment objectives and whose participation and support is crucial for the successful execution and implementation of the investment opportunity. Below are the stakeholders based on the investment opportunity.

Establishment of the ICT Park

No	Stakeholder
1.	National Information Technology Authority Uganda (NITA-U)
2.	Ministry of Information and Communication Technology & National Guidance (MoICT)
3.	Uganda Communications Commission (UCC)
4.	Ministry of Lands, Housing and Urban Development
5.	ICT Association of Uganda (ICTAU)
6.	Ministry of Trade and Industry
7.	Uganda Business Processing Outsourcing Association (UBPOA)
8.	Rural Communications Development Fund (RCDF)
9.	Ministry of Lands, Housing and Urban Development
10.	Uganda Investment Authority
11.	Real Estate Developers
12.	Education Institutions in the Rwenzori Region
13.	Local Governments (LGs)
14.	Surrounding communities that will be affected by the establishment of the ICT Park.
15.	Ministry of Water and Environment
16.	Ministry of Works and Transport
17.	Ministry of Foreign Affairs
18.	Governor/Administration of Ituri Province (Eastern DRC)

Establishment of Budiiba Bridge

The key stakeholders in the construction of the bridge are listed below.

No	Stakeholder
1.	Ministry of Works and Transport
2.	Ministry of Water and Environment
3.	Uganda National Roads Authority (UNRA)
4.	Ministry of Lands, Housing and Urban Development
5.	Civil Society
6.	Development Partners
7.	Uganda Investment Authority
8.	Local Governments (LGs)
9.	Surrounding communities that will be affected by the establishment of the bridge

Upgrading Kasese Airport

No	Stakeholder
1.	Ministry of Works and Transport
2.	Ministry of Water and Environment
3.	Civil Aviation Authority (CAA)
4.	Ministry of Lands, Housing and Urban Development
5.	Civil Society
6.	Development Partners
7.	Uganda Investment Authority
8.	Local Governments (LGs)
9.	Surrounding communities that will be affected by the establishment of the bridge

6.2 Policy documents

The infrastructure investment profile has been developed while ensuring alignment with the following key strategic and policy documents;

- Vision 2040;
- United Nations Sustainable Development Goals;
- The ICT Sector Strategic and Investment Plan (ICT-SIP) 2015/16-2019/20;
- Works and Transport Sector Development Plan 2015/16 -2019/20;
- National Land Policy 2013

6.3 Stakeholder Analysis and Coordination

Stakeholder analysis is a process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing and implementing proposed investment projects.

No	Stakeholder	Stakeholder Interest
1.	Surrounding communities that will be affected by the proposed infrastructure projects	• Transparent processes and information disclosure; • Timely and fair compensation
2.	Development Parnters	• Full compliance and adherence to the agreements; • Efficient utilisation of financing; • Access to relevant information about the proposed infrastructure investment projects; • Accounting and timely reporting; • Visibility; • Effective and positive outcomes (poverty alleviation) from any financing
3.	Government Ministries, Departments and Agencies (MDAs)	• Sharing of relevant information • Collaboration
4.	Private Sector	• Collaboration through Public Private Partnerships on proposed infrastructure investment projects
5.	Media	• Providing accurate and timely information on proposed infrastructure investment projects
6.	Civil Society	• Transparency in decision making and all activities; • Cooperation and information sharing
7.	Providers, Contractors, Consultants and Suppliers	• Meeting expected contractual obligations; • Timely payment; • Transparent processes especially procurement

6.4 Demand analysis for ICT Parks

Below is some representative data available on Uganda from some specific websites:

(a) GDP of Uganda is about USD 30 B. National ICT Survey (2018) mentions that ICT Sector contributes 3.1 % of GDP. Mostly ICT contribution comes from Communications (Internet & Mobile) sector. Technology (Hardware, Software, BPO) sector data (such as number of operational ICT Firms, Total Employment in ICT Sector separately [Hardware, Software, BPO, Internet Service Providers], Import by ICT sector, Export by ICT sector, Annual ICT Engineers & Graduates passing out, and percentage of Engineers & Graduates getting employment) is not available either at MOICT, UIA or NITA-U website.

(b) A reproduction of page 39 of National IT Survey 2018:

"Indeed, the Ministry of ICT, in its Policy Statement for 2016/17, noted that among the measures needed to address challenges in the sector, such as the high cost of access, included reducing tax on ICT equipment, end-user devices and international telecommunications traffic and increasing ICT infrastructure roll-out (including expansion of the NBI and last mile connectivity)."

Furthermore, the said report provides figures in % for MDAs & LG only. No data with figures are shared pertaining to Private Sector.

(c) URL: http://directory.bpo.go.ug/businessdirectory/index/seller displays about 25 BPO entities.

(d) URL: http://directory.bpo.go.ug/businessdirectory/index/itlist lists about 20 entities.

(e) URL: http://directory.bpo.go.ug/businessdirectory/index/itlist/ites lists about 20 entities.

(f) UGANDA ICT Booklet (URL:

http://unossc1.undp.org/sscexpo/content/ssc/library/solutions/partners/expo/2016/GSSD%20Expo%20Dubai%202016%20PPT/Day%202_November%201/SF%204_Room%20D_ITC/Investment%20profiles/Uganda/ICT%20(Information%20Communications%20Technology)/Uganda%20ICT%20booklet.pdf issued by UIA (2016) states following:

1. Uganda's US$ 27billion economy is made up of the agriculture industry and services sector with the services;

2. ICT sector, which employs 1 million people and contributes 7% of Uganda's GDP is one of the country's fastest-growing sectors with a CAGR of 25%. The IT Industry has a market size of US$918 million (2013), and is expected to grow to US$1.8 billion by 2020; driven by 72% local demand; 20% international and 8% from the region. Rest of ICT industry is dominated by Telecommunications or Communication Industry.

3. Available Labour force is 15.11 Million.

4. Major Exports comes from coffee, fish, tea, cotton, flowers, horticulture, gold

5. FDI: USD 1.15 B

(g) According to the Economist Corporate Network, Uganda's economy is among the 20 fastest-growing economies in the world. Similar growth is echoed by Harvard report (URL: http://atlas.cid.harvard.edu/rankings/growth-predictions/)

(h) Uganda's population (2014) is 37.78 M with 89.6 %literacy. Today, Uganda's ICT landscape consists of telecommunications, postal, broadcasting, and other sub-sectors of information technology and services, with the telecommunications sub-sector contributing most revenue;

(i) Uganda is also recognized as a regional leader in providing quality and affordable manpower;

(j) Education services with more than 201,376 enrolments every year in University and other tertiary institutions (2013). 7% being foreign students from Kenya, South Sudan and other East African countries. Uganda's oldest University, Makerere, has also been ranked third best University in Africa by UK's Times Higher Education in 2015, only rivalled by two South African Universities in research publications;

(k) Uganda's 15.1 million workforce also comes with a cost advantage in comparison to countries like India. According to a NASSCOM report, Uganda's entry level salary for IT services is an average of $320. This is 20% lower than India's $400 entry level salary. Furthermore, the government — through NITA-U and other private sector players — jointly-developed a training program that has so far trained 500 graduates at Makerere University to support the BPO sector. This growing pool of trained resources forms human capital that investors may access readily.

(l) Software Development: every year, Ministries, departments and agencies of within the government award several multi-million dollar software development contracts to foreign companies in order to develop Uganda's domestic software infrastructure.

(m) ICT hardware manufacturing and assembly: Lack of local companies active in ICT hardware manufacturing and assembly means that both Uganda's 38 million strong population and 150 million strong East African common market are important consumers of imported ICT hardware. This established local and regional demand for which there is no major local competition, and presents several lucrative investment opportunities.

(n) Ref URL: http://www.ugandainvest.go.ug/ict-sector-profile-2/ States the following:

1. "The specific share of IT within the ICT sector is difficult to assess in the absence of meaningful statistics. Ugandan's Information Technology & Information Technology Enabling Services (IT&ITES) industry is in the early stage of its development. As a result, little data is available on the industry, such as number of players, their revenues, the number of employees and the skillset available. The problem is compounded by the fact that many (smaller) companies are not prepared to make themselves known to government registration services, for reasons including, but not limited to being unable to escape the long arm of taxation. Current estimate of the number of employed ITES operatives is between 2500 and 4000." Ref

2. Further, (Ref point 5 Need for Development of ICT Park at Feasibility Report) does mention that "As on date, the ICT sector employs over one million people (Ref: https://www.ugandainvest.go.ug/ict-sector-profile-2/). Though total population of Uganda is over 40 million, the un-employment levels are close to 60 % and ICT sector could be one of the prominent sectors to provide huge employment to educated youth of Uganda (Youth un-employment in Uganda is the highest in Africa. A recent study, published by Action Aid, puts youth unemployment at 62%, although the African Development Bank says it could be as high as 83%. It is estimated that more than 40,000 young people graduate from Ugandan universities each year. Yet the market can provide only 8,000 jobs annually. Ref:https://www.theguardian.com/global-development/2014/jan/16/uganda-unemployedgraduates-held-back-skills-gap).

(n) Ref URL: https://en.wikipedia.org/wiki/Youth_in_Uganda

The unemployment rate for young people ages 15–24 is 83%. This rate is even higher for those who have formal degrees and live in the urban area. This is due to the dis-connect between the degree achieved and the vocational skills needed for the jobs that are in demand for workers.

Those without a degree are also not able to obtain jobs because they lack skills needed for specific positions or they don't have the resources such as a place of business and/or capital. Some youth also have negative views on certain jobs so are unwilling to accept offered position. Youth unemployment poses a serious political, economic, and social challenge to the country and its leadership. The cycle is making it increasingly difficult for Uganda to break out of poverty. Young women also more often have to stay at home in a maternal role from a very young age which limits their ability to work. Jobs in the iformal sector absorb majority of young workers in Uganda. 3.2% of youth work for waged employment, 90.9% work for informal employment and 5.8% of the Ugandan youth are self-employed.

(o) URL: https://en.wikipedia.org/wiki/Konza_Technology_City

Kenya is building 5000 acres Konza Techno-City to propel growth in ICT Sector with investment of approx. USD 15 B. Konza Technology City is a business process outsourcing (BPO) project that is being marketed by the Kenyan government through Kenya ICT Board. It is dubbed "where African silicon savannah begins".

The initial feasibility and concept master plan was prepared jointly by Deloitte and Pell Frischmann, a UK-based design consultancy and funded by the International Finance Corporation. At that stage, the project brief was limited to a Technology Park of 280 ha (700 acres) with BPO/ IT businesses at its core. During the feasibility study, Pell Frischmann proposed a city – Konza Technopolis to make the technology park a more viable destination. The Kenyan government agreed and commissioned a new master plan for a city of 2,000 ha (5,000 acres) that was completed by Pell Frischmann. World class infrastructure, sustainability and inclusive growth were the key drivers of this master-plan. The brand identity of Konza Technopolis as "the Silicon Savannah" and supporting promotional materials by Pell Frischmann and Urban Graphics, crystalised the Kenyan Government's vision of creating a world class city, powered by a thriving IT sector and generating >100,000 direct jobs by 2030.

It may be noted that size of Kenya is about twice that of Uganda. When Kenya can absorb about 5000 Acres ICT Park at single location then, Uganda can

certainly create 2500 Acres of ICT Parks and adjacent Social infrastructure. City of Pune (population about 6 M) has about 125 IT Parks spread over 3000 Acres (excluding Social Infrastructure).

(p) Cluster approach: Economic Cluster theory has been used to describe the growth of industry such as Silicon Valley. The benefits accrue due to concentration of complementary resources that include leading research universities, low cost or highly trained staff etc.

(q) The role of clusters in developing regional & national economy are widely available across research papers and articles. Clusters are also driven by external forces such as FDI & and multinational corporations, which results in a connection that occurs through knowledge exchange on the local level or across wider cluster networks." Clusters are self-contained and localized to their more specific role as interactive spaces that foster communication and collaboration between foreign and local organizations and individuals and enable the integration of developing countries into the global economy.

(r) It is understood that NITA-U and the government of Uganda are exploring the option of adopting Block-chain Technology and initiating its development activities. This single activity itself may require the following to make an impact on economy and establish Uganda as a leader in Africa:

#	Item	Area in Acres
1	Development Center	20
2	University/Training Center	20
3	Data Center (Tier V) & Block-chain Exchange	20
4	Residence for Key Staff & Students Hostels	20
5	Social Infrastructure (Hospital, Schools, Colleges, Malls etc.)	20
	TOTAL	**100**

Similarly, there are other emerging trends enlisted below:

#	Trend
1	Cloud Computing (SaaS & PaaS)
2	Data Privacy / Security
3	Data Analytics
4	Cloud / Client Architecture
5	User Interface & User Experience (UI/UX)
6	Internet of Things (IoT)
7	Artificial Intelligence
8	Mobile Apps

Notes:

(l) A few related sectors could be clubbed (out of 8 trends mentioned above) and about 4 independent ICT Parks of 100 Acres each could be developed across major cities of the Rwenzori region and the Country at large such as Kasese, Kyenjojo, Kabarole, Bundibugyo.

(ii) Further, there is a scope to set up 4 BPO Parks of > 60 Acres each to address low-end IT Enabled Services in areas of Finance, Insurance, Telecom, Retail, Manufacturing, E-Governance, Infrastructure (Technicians such as plumbers, electricians, carpenters, building site supervisors, electronic goods repairs etc).

(iii) Thus, there is a vast scope to setup ICT & Industrial Parks at Uganda to not only generate high- income level employment but also bring in higher FDI for boosting economy in addition to improving social infrastructure. It is possible to construct such ICT Parks with as little investment as possible on the government's part by adopting Investor-friendly PPP, ICT & FDI Policies.

(iv) The government of Uganda need to utilize the existing work force of 15 M youthful Ugandans to effective use by reskilling and improving ICT Training programs and establishing adequate Training Institutes (Universities & Institutes). This would link well with the Human Capital Development Profiles in development of vocational training institutions across the Rwenzori region.

6.5 Composition of the ICT Parks

Suggested composition for ICT Park at within the Rwenzori regions:

#	Item	Activity	Comments
1	38 % BPO / IT Sector	Standard factory Design. Land for 2 MNCs (IT / ITeS Firms)	Combination of IT & BPO (high end services) Land would be allotted to Anchor Clients to develop their own buildings as per their norms.
2	11 % Incubation Center & Accelerators plus Tele-Hub &/ or Data Center	Mentoring Startups along with value added services	This activity would create multiple jobs across Uganda.
3	11 % GIC (Global Innovation Center)	Building similar to IT Sector.	Global Innovation Centers (GIC) would be open to large Multi National Cooperations MNCs ready to spread operations within Uganda (or Africa) such as Apple, Google, Facebook, Microsoft, Intel, IBM, Dell, Accenture, Cap Gemini, Oracle, SAP etc. This would bring in the latest technology and keep Tech Sector up-to-date. All such Firms would be invited by the Government to set up their operations at this prestigious IT Park.
4	40 % Non-IT Activities	Training Centers Hotel / Studio Apts Convention Center Indoor sports Food Courts Business Center (like Regus) Multiplex	It makes IT Park viable proposition for Investor. Business Center would be primarily used by Angel Investors/ VCs etc for interacting with Incubates or by visitors of Large Companies.

Value added services at incubation/accelerators: the business incubation process adds value by accelerating the start-up of new businesses and helping to maximize their growth potential in a way that is more difficult for alternative SME support structures to achieve outside the IT Park.

Startup activity would increase the velocity of innovation (knowledge economy) not only in private sector but in the functioning of the Ugandan Government. It may be noted that one export job in IT Sector could fetch 1000 times per capita income of Uganda.

6.6 Role of government as a PPP partner

PPPs are very effective at getting quality long-lasting infrastructure built more quickly and using private capital to stretch the country's capital budget so the Government gets more area built.

PPP Partner needs to Develop the ICT Park, manage Value Added Services, provide business opportunities & Host Hackathons and Startup Events. While Government of Uganda would ensure apt Investor friendly policies, world class Surrounding Infrastructure & Play a role of Facilitator.

To ensure smooth delivery of the project, it is expected that NITA-U will:

1. Ensure availability of project land in a free, unencumbered version and without informal settlement;

2. Ensure quick provision of information as per questionnaires;

3. Liaise with other government agencies to ensure provision of all required infrastructure required for the successful delivery of the project;

4. Grant swift approvals and feedback on the key milestones to enable completion within the set timelines;

5. Spearhead liaison with all the linkages for the successful implementation of the project.

07

Policy, legal and institutional framework

Policy, legal and institutional framework

7.1 Policy framework

The Government of Uganda (GoU) through the Ministry of Finance and Information Communication Technology sector has put in place policy frameworks aiming at providing a conducive environment for Private Sector Participation and Investment. They include the following:

The Uganda Vision 2040

The Vision 2040 is the overarching planning framework for the country. The goal of this Plan is to propel the country towards middle-income status by 2020 through strengthening the country's competitiveness for sustainable wealth creation, employment and inclusive growth. In this regard, the country will develop Hi-Tech (digital industries) characterised by attracting the world's leading technology corporations while providing fertile ground for thousands of Ugandans bred small innovation start-ups, to grow in to multi-billion-shilling global businesses. The Hi-Tech centres shall be hubs for high-growth, highly innovative companies capable of creating thousands of technology jobs. The Hi-tech centres shall be modelled on the Silicon Valley in the United States and/or East London Tech City. In the context of transportation infrastructure, the country will develop the road infrastructure to improve transport connectivity, effectiveness and efficiency to comparable levels of developed countries.[9]

National Development Plan (NDP III)

NDP III draws focus on developing an adequate, reliable and efficient multimodal t ransport network in the country and improving the National Industry construction (policy, legal, regulatory and institutional framework for the construction industry.

The ICT Sector Strategic and Investment Plan (ICT-SIP) 2015/16-2019/20

The ICT-SIP (2015/16-2019/20) is a five-year plan to guide the development of the ICT Sector in line with Vision 2040 and National Development Plan III (NDPIII).

The ICT-SIP covers the key pillars of infrastructure, human capacity, cyber-security, e-government, local content and services. It aims to increase ICT access and broadband speeds to 4Mbps and 30Mbps for rural and urban households respectively.[10]

National ICT Policy (2014)

The National ICT Policy is aimed at supporting realisation of Vision 2040 with broad objectives that include building a knowledge – based human capital, promoting innovation in economic and social systems, expanding ICT infrastructure and its integration, improving utilisation of ICT services, enhancing research and innovation in ICT and improving ICT governance in Uganda.

National Broadband Policy 2018

The National Broadband Policy 2018 also builds on the objectives of Vision 2040 and NDPIII by highlighting the role of broadband internet as enabler for socio-economic development and calling for broadband infrastructure to be planned for like other public infrastructure (for example roads, railways or power lines).It emphasises ICT infrastructure sharing among licensed providers, universal access to broadband internet across the country including rural and hard-to reach areas.

Other emerging policy areas include the enabling environment for the internet and new technologies including convergence, diffusion of ICT in all spheres of life. (such as e-Government, e-Commerce, e-Employment, ICT in education, ICT in science, and ICT in agriculture. A number of other policies have been formulated to guide specific subsectors such as the National IT policy 2011, National e-Government Policy Framework 2011, E-Waste Management Policy 2012 and National ICT policy 2014.[11]

9 Uganda Vision 2040

10 ICT SIP-2015/16-2019/20

11 ICT Sector Strategic and Investment Plan (2015/16-2019/20)

Works and Transport Sector Development Plan (WTSDP) 2015/16 -2019/20

The WTSDP sets the medium-term strategic direction, development priorities and implementation strategies of the Works and Transport Sector. The theme of the WTSDP is "Development of Sustainable Inter-modal Transport Infrastructure and Services for Socio-Economic Transformation." This theme is in line with the National Development Plan theme of Strengthening Uganda's Competitiveness for Sustainable Wealth Creation, Employment and Inclusive Growth as well as the aspirations of Uganda's Vision 2040 of accelerating the transformation of Ugandan society from a peasant to modern and prosperous country within 30 years. The plan aims to address key challenges facing Uganda's transport system by setting out priorities and key areas on which to focus.

National Land Policy 2013

The goal of the National Land Policy is to ensure an efficient, equitable and optimal utilisation and management of Uganda's land resources for poverty reduction, wealth creation and overall socio-economic development.

Buy Uganda Build Uganda Policy 2014

The objective of the policy is to promote consumption of locally-produced goods and services, including consultants, contractors, material and equipment for infrastructure projects.

National Transport Master Plan (2008- 2023)

The National Transport Master Plan — including a Transport Master Plan for Greater Kampala Metropolitan Area (NTMP/GKMA) — sets out a framework for development of the transport sector over the next 15 years, 2008-23. This plan provides analysis and a realistic 15-year sector investment plan, also addressing the necessary management framework. It reflects the key role that transport plays in facilitating economic and social development.

7.2 Legal framework

There are a number of legislative and regulatory instruments in Uganda that affect the infrastructure sector in both general and specific terms. Below are some of the Acts and Regulations that are of particular relevance to the Infrastructure Sector:

Physical Planning Act 2010

The Act provides the development of physical infrastructure development plans at local level by establishing district and urban physical planning committees.

Building Control Act 2016

This Act has not yet been approved but it 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 building structures that are developed in harmony with the environment and for other related matters.

Public Private Partnerships Act 2015

The Act is the legal framework for the development, implementation and design of Public Private Partnerships (PPPs). The Act explicitly restricts the scope of PPS to central government ministries and departments excluding local government.

The sector has also put in place various laws and regulations to operationalize provisions of the different policies, and protect the sector players and users. The key laws enacted include the Electronic Signatures Act 2011, the Electronic Transactions Act 2011, and Computer Misuse Act 2011, NITA-U Act 2009, Consumer Protection and Competition bill 2015.

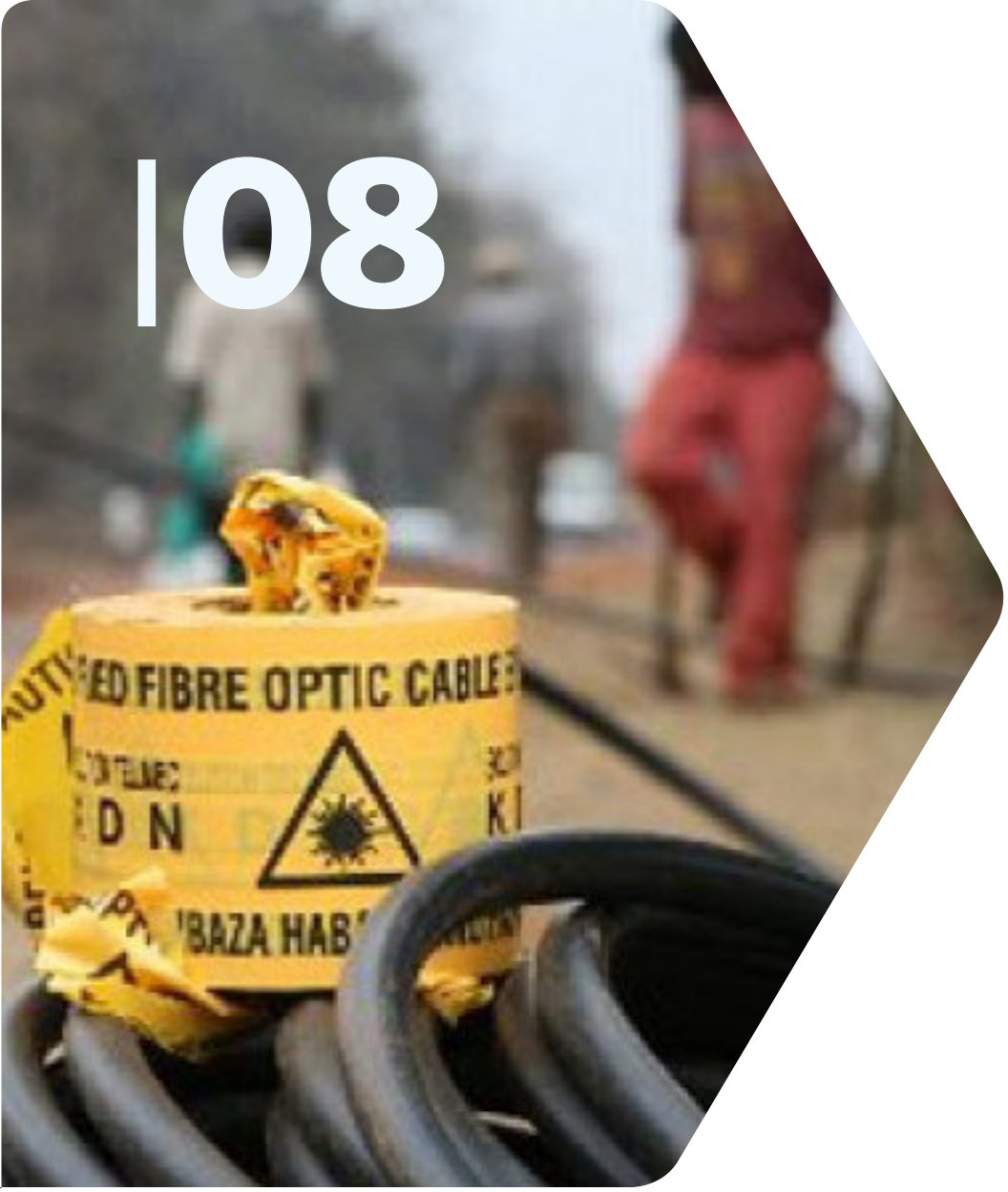
7.3 Institutional framework

The ICT sector is organised into three functional levels at the top or policy level is the Ministry of Information and Communication Technology & National Guidance (MoICT) which provides strategic and technical leadership, overall coordination, support and advocacy on all matters of policy, laws, regulations and strategy for the ICT sector for sustainable, effective and efficient development; harnessing and utilisation of ICT in all spheres of life. The Ministry is also responsible for developing and/or reviewing policies, laws, regulations and standards to ensure a conducive environment for sustainable growth and development.

In the middle or regulatory level the Ministry is supported by regulatory agencies such as the Uganda Communications Commission (UCC) regulating the telecommunications sector and also responsible for management and implementation of related to Rural Communications Development Fund and the National Information Technology Authority Uganda (NITA-U). NITA-U's mandate is to coordinate, promote and monitor development of Information Technology (IT), e-Government implementation and Information Security in Uganda. NITA-U coordinates the implementation of the National Backbone infrastructure/E-Government Infrastructure and Business Process Outsourcing (BPO).

At the bottom of the service provision level are the public and private sector players that provide services directly to citizens. Public sector players encompass Local Governments (LGs), as well as Ministries, Departments and Agencies (MDAs), while private sector players are licensed and supervised by regulatory bodies.

The works and transport sector is led by the Ministry of Works and Transport which is responsible for policy formulation, legislation, strategic planning, setting standards, regulation and monitoring and evaluation of the Works and Transport Sector. Other institutions are the Uganda National Roads Authority (UNRA) which is responsible for developing, maintaining and operating the national roads network, the Uganda Road Fund (URF) which finances routine and periodic maintenance of public roads, Civil Aviation Authority (CAA) for management and regulation of the air-transport sub-sector and the National Building Review Board (NBRB), and Local Governments.



08

Enabling environment

Enabling environment

In order to ensure harmonized and rationalized delivery of ICT in both the Private and Public Sectors, a number of strategies have also been developed. The key ones are the Strategy for Rationalization of IT initiatives in Government 2012, National e-Government Master Plan 2012, National Information Security Strategy 2011, Business Process outsourcing Strategy (2008, revised 2012), and Transition from Internet Protocol version 4 to Internet Protocol version.[12]

The country also has a National ICT Innovation Support Programme (NIISP), with the Ministry supporting innovators to develop products and services that are viable for the market. There is also a relatively well -structured ecosystem in place for the CIT Sector to expand in the country. Government-related organisations such as NITA-U, Uganda Investment Authority (UIA), Uganda Export Promotion Board (UEPB) are working with private sector organisations such as Private Sector Foundation Uganda (PSFU), Makerere University, industry associations like the ICT Association of Uganda (ICTAU) and Alliance for Trade in Information Technology and Services (ATIS) as well as incubators like Innovation Village, Hive Colab, Outbox and others to support IT and ICT Enabled Services (ITES) service providers.[13]

Uganda has a National Backbone Infrastructure — an initiative that aims to connect all major towns within the country to an optical fibre cable-based network and to connect government entities to the e-Government Network — that has been extended to districts country-wide. The total span of optical fibres laid out across the country by both the Government and private sector is 5,110 km, providing seamless connections. Additionally, in order to provide faster internet speeds, 4G technologies have been rolled out with the objective of transforming access to public and private spectrums as well as promoting e-commerce to boost economic growth and efficiency.[14]

In addition, the established PPP Unit under the Ministry of Finance facilitates the process of establishment of PPP models that are mutually beneficial for the investor and the government of auganda.

12 ICT Sector Strategic and Investment Plan (2015/16-2019/20)
13 Uganda IT & ITES Directory 2019-2020
14 ugandainvest.go.ug

09

Necessary policy, legal and institutional support services

Necessary policy, legal and institutional support services

The Government of Uganda has made considerable investments in the development of the National Backbone Infrastructure (NBI) there are however disparities in coverage across the country which necessitate additional infrastructure investments to extend reach and improve network performance.

Although local material standards exist for construction projects, international contractors prefer to use international standards resulting in to a large proportion of materials being imported. The Buy Uganda Build Uganda local content strategy requires that local content should constitute 30% of all goods and services procured by the public client. Implementation and enforcement of this strategy is proving challenging because the local contractors and consultants often lack the capacity or experience to take advantage of this provision, especially for relatively complex infrastructure projects. The government of Uganda should put in place specific requirements which enable local contractors to benefit more from investing their input into all infrastructure projects and promoting them either exclusively or through Joint Venture Partnerships.

Uganda has put in place strong legal frameworks; the implementation of these frameworks, however, remains sub-optimal. The PPP Act 2015 for instance has been slow in terms of actual implementation because of little experience with PPPs apart from the energy sector. The government of Uganda needs to establish appropriate institutions and processes to actualise the existing legal policy frameworks. The government of Uganda should also work towards building a robust PPP pipeline in order to develop sustained infrastructure financing.

Although local material standards exist for construction projects, international contractors prefer to use international standards resulting in a large proportion of materials being imported. **The Buy Uganda Build Uganda** local content strategy requires that local content should constitute **30%** of all goods and services procured by the public client.

10

Financing options

Financing options

There are three key financing options for both local and foreign investors for the infrastructure and services sector in Uganda. These include debt, equity or mezzanine (a combination of both debt and equity). The following subsections analyse each of the options in the context of the Ugandan Infrastructure and services sector.

10.1 Debt

Investors in the Infrastructure and services sector in the Rwenzori region may obtain funding from locally-based financial institutions or foreign-based financial institutions. The table below summarises the locally-based financial institutions that can finance large projects in Infrastructure and services sector.

Bank	Ownership	Total Assets in USD Millions	Market Share	Number of Branches
Stanbic Bank	Foreign	2,105 Millions	20.56	78
Standard Chartered Bank	Foreign	840 Millions	12.12	9
Centenary Bank	Local	950 Millions	10.37	63
DFCU	Foreign	939 Millions	7.72	62
Others	Several	2,066 Millions	49.23	334

The average local interest rates range from 16% to 30% per annum for loans obtained in Uganda and financed in local currency. The current Central Bank Lending Rate is 7%. This makes sourcing for capital in Uganda more expensive compared to international markets. Foreign investors may opt to obtain loans from more efficient international markets at LIBOR+1%.

Debt as a means of financing is recommended if obtained at affordable rates to finance interest payments. The projected finance models indicate a Debt Service Coverage Ratio (DSCR) averaging 1.16 to 4.52 times indicating the ability to finance loans at a cost of 8% per annum.

10.2 Equity

The average projected Return on Equity (ROE) is estimated to range from 17% to 25% on capital invested. This creates opportunity for both local and foreign investors to obtain maximum returns on their investments in the Rwenzori region.

10.3 Mezzanine

Investors can opt for a combination of both debt and equity to maximise the benefits of debt while also benefiting from equity from investors. The different scenarios of financing modelled yield a positive project internal rate of return.

10.4 Grant/Aid

There are several financing options from donors, development partners and multilateral organisations and social impact investors with the intention of having a positive impact in the lives of vulnerable poor in Uganda.

11

Personnel planning

Personnel planning

11.1 Skills level

The skills level in Rwenzori region is analysed in the context of Uganda's Human Development Index. Uganda's HDI value for 2018 is 0.528 — which put the country in the low human development category — positioning it at 159 out of 189 countries and territories.[15] The level of availability of skilled manpower in the Rwenzori region is low since majority of the population does not possess the skillsets to manage and operate complex Infrastructure and services sector projects.

Management roles requiring skilled manpower can be obtained from Uganda's capital – Kampala.

11.2 Staffing requirements/plan

To operate Infrastructure and services sector projects, the staffing requirements vary depending on the specific infrastructure to be developed and opportunity to be pursued. This will be cultivated during the detailed feasibility stage when setting up the PPP instruments.

15 Briefing note for countries on the 2019 Human Development Report for UNDP

12

Social, economic and environmental sustainability

Social, economic and environmental sustainability

Sustainable Development Goals and 2030 Agenda

In 2015, the United Nations (UN) approved the 2030 Agenda for Sustainable Development, whih set in motion the Sustainable Development Goals (SDGs).The 17 goals are designed to take a holistic approach to address the social, economic and environmental aspects of sustainable development. Investment in Uganda's Infrastructure and Services sector is one of the gateways through which the SDGs will be attained. Construction of infrastructure including road networks, bridges, airports and a physical market across the Border region helps to increase the quality of life of the population within the region.

Social goals achieving the social goal of reduced social inequality especially gender inequality is dependent on improving access to economic resources such as land, natural reosources, financial services and technology for women and marginalised groups.Investors should focus on emancipating these groups to improve access to markets, reduce regional inequalities,and also achieve sustained incomes.

Environmental goals including climate action, sustainable production and consumption as well as management and preservation of natural reosources and biodiversity are intergral to investment in the Infrastructure and Services.

> Investment in Uganda's Infrastructure and Services sector is one of the gateways through which the SDGs will be attained. **Construction of infrastructure** including **road networks**, **bridges**, **airports** and a **physical market** across the Border region helps to increase the quality of life of the population within the region.

12.1 Social sustainability

The Infrastructure and Services Sector Investment profile has generated various investment opportunities targeted at improving the social economic wellbeing of people within the Rwenzori region. These proposed projects focus in the concept of social accountability with emphasis on promoting the betterment of the lives of people within the Rwenzori region. This has broadly focused on issues like environmental law, human rights, and public involvement and participation in all projects that are proposed. Putting an emphasis on social sustainability in implementing the proposed projects should strengthen other spheres of sustainability. The following text discusses the concept of social accountability as it relates to the respective opportunities that have been identified.

Infrastructure within the Rwenzori region has undergone significant transformation as a catalyst for economic development. The GOU Sector development strategy provided has consistently allocated funding for the infrastructure and that presents opportunities to develop infrastructure using the Public Private Partnership (PPP) model.

The adoption of a Public Private Partnership (PPP approach presents opportunities for investors within the region in the areas of ICT Parks, Road Networks, a bridge at Budiiba in Ntoroko district and the construction of an International Airport in Kasese district to open up the region to increased economic growth and development opportunities.

It also provides an anchor for other sectors to grow, thereby stimulating a trickle down effect across the economy through employment creation and income growth. The willingness of GOU incentivise international players to invest in the region through tax breaks, and incentives that make it possible to attract competent partners to the region.

The three investment opportunities that attract profitable returns within the region are four: 1 Establishment of an Information Communication Technology (ICT park; 2 Establishment of Budiiba bridge in Ntoroko district; 3 Upgrading of Kasese Airport; and 4 Establishment of a Physical market both in Ntoroko and Bundibujo.

There will be need to promote sustainable mechanisms in developing infrastructure and services within the region. This will include use of locals in the form of offering training and employment opportunities.

12.2 Economic sustainability

Economic Sustainability is a critical pillar in developing the Infrastructure and Services Sector Investment Profiles. The proposed projects were made with the understanding that they are the most equitable and fiscally sound projects considering all other aspects of sustainability especially betterment of society with long-term benefits within the Rwenzori region. The following was proposed: a blend of good business practices with social and environmental aspects of sustainability to ensure positive results through large-scale employment, education and betterment of communities.

The implementation of a PPP model I infrastructure development provides an opportunity for returns to the private sector while also ensuring sustainable service delivery for the community.

Economic Sustainability of the infrastructure and services projects will involve an increasingly networked set of inter-relationships between actors in the public, private and third sectors, and should bring together local communities, businesses and the traditional institutions of the state with an interest in infrastructure and services, in order to achieve the sustainable management of infrastructure and services within and between destinations.

12.3 Environmental sustainability

The environmental pillar ensures that adequate attention is given to the protection of the natural environment. Infrastructure and Services has a special, two-way relationship with the environment to ensure that the process of construction and implementation considers the implication to the environment.

|13

Support pre-/post-investment

Support pre-/post-investment

13.1 Pre-investment

The support needed for pre- and post-investment for the Infrastructure and services sector include the following:

Regional trade integration

Fostering additional integration within the Rwenzori region and broadly eliminating tariff and non-tariff barriers.

Taxation

One of the critical aspects of investment in the Rwenzori region are aspects of taxation of imports, exports, and licencing. There are tax waivers for investors within the region that can be utilised for investment in the region.

13.2 Post-investment

In addition to the pre-investment factors where support will be needed, establishment of a mechanism to track performance through a Monitoring and Evaluation System is paramount. This will help monitor returns in a timely manner.

Risk Assessment

Risk Assessment

14.1 Risks assessment and mitigation measures

The following risks were identified related to the Infrastructure Profile.

Types of risk	Risk consideration	Likeliness (High, Med, Low)	Impact level (Fatal, Manageable)	Mitigating action taken by the firm NOW	Recommended actions	Priority (High, Med, Low)
Non Performance Risk	Concessionaire's inability to fund and complete the construction on time leading to excessive delays is a key risk. The risk is financially covered through Concession Agreement. Other than that this risk would always exist even in traditional EPC route, that too without any financial cover to the Government.	Medium	Manageable	Insurance: It would be mandatory for the developer to insure the project area from all insurable risks. This would protect his investment as well as interests of the Government.	MIGA Guarantee: Non-insurable risks such as political (sovereign) and social unrest related risks are covered by MIGA Guarantees. Cost attached to such guarantees is however, significant. It may be as high as 6% of the CAPEX in some cases. It is recommended that Government offers adequate risk cover through the concession agreement for political risks. Requisite coverage from MIGA Guarantee may be minimized, which would reduce its cost. Government should actively participate in MIGA Guarantee negotiations so as to reduce the cost burden.	

Types of risk	Risk consideration	Likeliness (High, Med, Low)	Impact level (Fatal, Manageable)	Mitigating action taken by the firm NOW	Recommended actions	Priority (High, Med, Low)
Idle Capacity Risk:	Inability to attract viable number of occupants is a risk. The infrastructure would remain idle and resources unutilized. Proposed Concession Agreement provides for potential Government efforts to attract the occupants, thereby leading to equality in PPP and traditional route, as far as this risk is concerned.	Medium	Manageable	N/A. See above	N/A. See above	
Revenue Risk:	Is entirely upon the private sector developer. Government would be party to the risk only on the profit-side as it would be 26% to 49 % stakeholder in the ownership.	High	Manageable	N/A. See above	N/A. See above	Med
Construction Risk:	Is entirely upon the private sector developer. However, the Government may assist in terms of providing soft finance, permits and approvals in all the possible ways as the Project is of crucial importance to the Government.	Med	Manageable	N/A. See above	N/A. See above	High

Types of risk	Risk consideration	Likeliness (High, Med, Low)	Impact level (Fatal, Manageable)	Mitigating action taken by the firm NOW	Recommended actions	Priority (High, Med, Low)
Inflation risk	Uganda has moderate inflation track-record ranging from 4% to 6.70% per annum. As mentioned in World Bank report, it is reasonable to assume that the average inflation would be around 5%, which has been used in the financial model. Since most of the inflation risk is concentrated during the construction period, which is just 2 years, it is probably not a high-end risk. Cost escalation risk due to inflation would entirely be upon the investor.	Medium		N/A. See above	N/A. See above	High
Currency risk	Risk of currency variation affecting construction cost is a sensitive issue because of imports required for construction. However, since project revenue, especially long term lease premium of land and buildings would be priced in USD then, the risk is aptly hedged. It is recommended that even the lease-rentals be priced in USD. It is easily possible because most of the occupants would be IT companies, with export orientation and their revenue stream would be in USD.	Medium		N/A. See above	N/A. See above	High

Types of risk	Risk consideration	Likeliness (High, Med, Low)	Impact level (Fatal, Manageable)	Mitigating action taken by the firm NOW	Recommended actions	Priority (High, Med, Low)
Sovereign risk / Political risk	The Concession agreement should suitably immunize the Project from the change in policies and change in Government over the entire concession period.			N/A. See above	N/A. See above	High
Operational risk	This would be shared by the Government as well as the private sector investor. The terms should be favourable not only to the developer but also for the occupant ICT companies. Government policies should ensure that the ICT firms would always continue to see the IT Park as a favourite destination. As there could be a competition from the neighbouring countries, this point is of utmost importance.	Medium		N/A. See above	N/A. See above	High
Infrastructure risk	This is entirely on the Government. The proposed IT Park must have excellent access-roads, means of commutation/ transport, water, electricity and high-end internet connectivity. It should also facilitate availability of health-facilities such as hospitals and schools as well as recreation facilities because IT Park houses significant number of staff.	Medium		N/A. See above	N/A. See above	High

14.2 Risk sharing by government & PPP partner

	Government	Private
Financing Risk		Y
Revenue Risk		Y
Inflation Risk		Y
Performance Risk	Y	
Political Contingency Risk	Y	
Social Contingency Risk	Y	
Ecosystem Risk		Y

Notes:

- *Financing Risk:* Raising capital for Project at reasonable cost.
- Revenue Risk: Getting expected number of occupants at expected price.
- *Inflation Risk:* Risk in price affecting construction cost and/or operational expenses.
- *Performance Risk:* Performance of the Concessionaire leading to success of the project. Though adequate financial remedies are built-in in the Concession Agreement, time-loss would be the loss to the government.
- *Political and Social contingencies:* Cancellation of agreement owing to political or social factors would lead to financial compensation to the Concessionaire.
- *Ecosystem Risk:* Support infrastructure has to be developed by Government without which success of the project would be in doldrums.

(Footnotes)

[1]Infrastructure and Transparency Initiative 3rd Assurance Report Uganda

[2]The Agri-business scan for Uganda page 21

[3]Uganda Bureau of Statistics 2019 Statistical Abstract page 188

[4]The Agri-business scan for Uganda page 21

Get in touch

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SUSTAINABLE DEVELOPMENT GOALS