MINISTRY OF EDUCATION AND SPORTS

UGANDA SKILLS DEVELOPMENT PROJECT (USDP)
MINISTRY OF EDUCATION AND SPORTS -UGANDA

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT - PROJECT BRIEF FOR THE PROPOSED REDEVELOPMENTS TO BE UNDERTKEN IN

UGANDA TECHNICAL COLLEGE-LIRA

LOCATED IN LIRA MUNICIPALITY, LIRA DISTRICT AT GPS COORDINATES 36M 488462.21mE 246633.92mN at 11800masl (UTM – WGS 84).

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ABBREVIATIONS AND ACRONYMNS

BTVET	Business, Technical and Vocational Education and Training
CAO	Chief Administrative Officer
CoE	Centre of Excellence;
DCDO	District Community Development Officer
DEnvO	District Environment Officer
DEO	District Engineer
DLO	District Labour Officer
ESIA	Environmental and Social Impact Assessment;
ESMP	Environmental and Social Management Plan
ESSP	Environmental and Social Sector Program
FIDA	FIDA Uganda - Uganda Association For Women Lawyers
GEP	Gender Educational Programs
ICT	Information Communication and technology
IDA	International Development Association
IT	Information Technology
IUCN	International Union for Conservation of Nature
MOES	Ministry of Education and Sport;
PDU	Procurement Disposal Unit
MoGLDS	Ministry of Gender Labour and Social Development.
MX6 IBrid	Brand of a Portable multi gas detector/ Monitor
NDP-II	The Second National Development Plan
NEMA	National Environment Management Authority
NWSC	National Water and Sewerage Corporation
UNWA	Uganda National Meteorological Authority
USDP	Uganda Skill Development Project;
UTC	Uganda Technical College

UVQF Uganda Vocational Qualifications Framework

VTIs Vocational and Technical Institutions

Definitions

Decibel: The decibel (dB) is a value describing the logarithmic level of sound or pressure above an arbitrarily chosen reference value.

dBA: Unit used to measure 'A-weighted' sound pressure levels. A-weighting is an adjustment made to sound-level measurement to approximate the response of the human ear.

LAeq: Is essentially the average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound over the same measurement period.

LAmax: The maximum sound pressure level measured over a given period.

LAmin: The minimum sound pressure level measured over a given period

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A. INTRODUCTION

a. Introduction and Background

The Business, Technical and Vocational Education and Training (BTVET) in Uganda has suffered from weaknesses in five major areas. These include; relevance to economic growth, quality of skills provision, access and equity, organizational effectiveness and financial and internal efficiency. The system does not produce the appropriately skilled workforce that Uganda requires to increase income and employment and to compete internationally. The training institutions do not deliver training commensurate to the required standards and few students access this training.

The overcome this, the Government of Uganda launched a Business Technical and Vocation Education and Training (BTVET) strategic plan 2012/13 to 2021/22 entitled "Skilling Uganda" in 2012. The Skilling Uganda strategy aims to transform the BTVET system from an educational sub-sector into a comprehensive system of skills development for employment, enhanced productivity and growth. The strategy emphasizes a paradigm shift for skills development, which essentially aims at realigning the policy and institutional framework as well as investment in skills development to transform the current supply-driven system to demand driven, employable skills and competencies to the labour market and the growing Ugandan economy.

In line with this, the Government of the Republic of Uganda represented by the Ministry of Education and Sports has received financing from the World Bank (WB) in the form of a credit (hereinafter called "credit") towards the cost of Uganda Skills Development Project (USDP). USDP is a five (5) year project, which was approved in April 2015 and became effective in October 2016. USDP targets enabling programmes to meet skills needs in key priority sectors of the economy i.e. Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040.

Under this project, the feasibility studies, environmental and social safeguards assessment, detailed design, documentation and construction supervision of civil works for renovation and upgrading of institutional buildings proposed for Centres of Excellence (CoEs) and Vocational Training Institutes Lot 1: Uganda Technical College Lira & 3 Network Institutes (Kitgum Technical Institute, Kalongo Technical Institute, and Ora Technical Institute) was pioneered. It is therefore important to note that UTC-Lira and her VTIs as institutions are based in Construction and Manufacturing, and therefore implementation of projects listed in section B below and chapter 2, will transform them into centres that deliver their services better.

For these projects to be implemented successfully, it is required that there is at most compliance to the Environmental and Social Safeguards. This therefore begins with having an Environmental and Social Impact Assessment conducted which has been compiled into a Project Brief, as required for Category B Projects, and this brief will be submitted to the National Environmental Management Authority for approval as well as to the World Bank for a "Non Objection" approval.

A number of projects have been proposed for design for implementation as per the Preliminary Engineering Report, which include New administration Block, new

classrooms, new Girls and Boys Hostels among others. These projects were carefully selected by the Lira Administration and Management team, Twinning Partners, USDP officials and the Engineering Consultant.

This non-technical summary therefore, provides a brief description of the project background, project description and objectives, the relevant legal frameworks including the world bank safeguard policies, baseline conditions of the proposed project site, possible impacts and proposed mitigattion measures associated with the project, and an environmental and social management plan..

b. Objectives of USDP

The overall goal of USDP is to enhance the capacity of institutions to deliver high-quality, demand driven training programs in the agriculture, construction and manufacturing sectors and create stronger linkages between vocational training and industry. USDP also aims at establishing Centers of Excellence (CoEs) at targeted sectors with a network of vocational institutions (with well-prepared students; well-trained faculty; high quality, relevant curricula; adequate facilities and equipment; teaching resources and assessment systems), and an institutional framework that encompasses sector skill councils.

The specific objectives include the following:

- Improving the relevance of skills provision to improve productivity and enhance growth in the Uganda economy;
- Improving the quality of skills imparted;
- Increasing access to and equity within BTVET sector;
- Improving organizational and management effectiveness; and
- Improving financing and internal efficiency.

B. PROJECT DESCRIPTION

a. Current Status of the facilities to be Upgraded

A number of projects have been considered for implementation in order to upgrade Uganda Technical College – Lira into a Centre of Excellence. In order to appreciate the need for the proposed redevelopment, it is prudent that the current state of the technical college is sufficiently described which will justify the need for strengthening the institutes infrastructure by implementing the planned projects. It is also important to note that the planned redevelopment / implementation of the planned project will not automatically transform UTC - Lira into Centre of Excellence but will pave the way to transformation.

Therefore, below is a summarized status of the existing facilities whose modalities are to be improved upon by either re-development or implementing totally new facilities that will serve the same purpose and improve of efficiency of service delivery.

Teaching Facilities:

Classrooms: Rehabilitate old classrooms located in 5 buildings. Majority of old buildings are in poor condition requiring immediate renovation work including full replacement of the Asbestos roofing sheets and anti-termite treatment to wooden structures and floors.

Training Facilities:

The workshops are in an old building which is rather in a suitable location for training purposes since they are all located on the ground level which has a yard space for outdoor demonstrations, circulation and vehicular parking. Nonetheless, the workshops are not working to their full capacity due to the deterioration of the buildings and lack of modern equipment and tools. Most of the workshops are covered with Asbestos sheeting material and are used for student's demonstration instead of student's real practice.

Administration and Staff Offices:

Currently there is inadequate space to accommodate staff offices, archives and storage areas. About 60% of the UTC-Lira staff have no office, and the few available staff offices are very old, dilapidated and made up of asbestos roof/sheets.

Accommodations:

Students' Hostel: About 87% of the boys' and 100% of girls' students are accommodated in the premises; however these premises are in a very poor condition and small to accommodate all the students. The hostels have no cupboard shelves, forcing the students to use their windows for hanging clothes.

Staff housing: These facilities are in a very sorry state as compared to other structures within the institute's boundaries and are currently inhabitable. The structures are dilapidated, walls are seen with lots of cracks, leakage on the roofing system, windows lack proper locks and hinges, window glasses in most cases dilapidated, pavement washed away, electric system and sanitations require renovation work. Over two-third of the teaching staff do not leave within the institute, but reside outside the college. The existing staff quarters accommodating about one-third of the staff are found within the institute boundaries.

Utilities:

Power Supply System: Power back up from generator is not adequate to support the workshop and laboratories.

Water Supply: Construct elevated tanker with a capacity to store water for continual supply for at least five days.

Internet Facility: The internet facility in the UTC Lira is extremely weak, sub-standard and not reliable. Furthermore, the central Library has no ICT corner or corridor for e-books and e-journal facilities.

Storm water Drainage System: The site is relatively flat around the workshop and teaching area. Part of the site is flooded and water is retained for long hours on roads and walkways after heavy rain due to lack of storm water drainage system in the premises

Ancillary Buildings:

All the 22 waterborne toilets found at the old workshops, classrooms, student's dormitories, staff quarters and staff offices shall be renovated. This will involve repairing of the piping system, clearing of the drainage system, fixtures will be replaced such that the toilets function properly.

Dry pit latrine for the girl's dormitory shall be removed and replaced by new water born toilet facilities; and there are no adequate bath room and Laundry facilities to students' dormitories.

External Facilities:

Roads, circulation and parking - all roads are earth roads and a source of dust.

Boundary Fence: Part of the perimeter at the rear side is vandalized by encroachers

b. Proposed Projects to be considered in the redevelopment

It is due to the above inadequacies within the institute's infrastructure that have justified the need for upgrading UTC-Lira into a Centre of Excellence, that the redevelopments and implementation of the proposed projects have been considered. The projects presented in table 1 below were considered under the USDP financing involve the following: -

Table 1: Proposed Projects

Project Priority	Project	Description
1	New NAIT Classroom Block at UTC Lira	48m x 10m new NAIT block comprising of 5 independent rooms. These are Admin Room, Computer lab, Classroom, Lab and storage room. Built up area - 500 m^2
2	Upgrade of Utilities	
2.1	Upgrade the existing transformer by 500 KVA	The existing transformer has 315 KVA capacity and cannot support the prevailing infrastructure development. It shall be upgraded further by 500 KVA to support the workshops and current infrastructure developments.
2.2	Backup Generator	Supply and install 200KVA backup generator for the workshops. The actual capacity requirement will be determined after design.
2.3	Internet Access	The national information technology authority of Uganda (NITA-U) has a plan to supply an optical fiber for all Colleges within the coming years. It should at least be of 20mbps and we would recommend that they design it in a more scalable way such that it can be upgraded in a short time possible if needed for future expansion. The incumbent infrastructure to provide internal connection to the fiber-cable of NITA-U. The cost for internal installation is considered in the respective estimates.
2.4	Safety and Security	External Solar night lights, CCTV and Signage.
3	Classrooms	Six new classrooms each 90 m2 for the existing students with gross area of 540m2.

4	New Girls' Hostel	New building for girl's hostel accommodating about 160 girls. An area about 1200 m2.
5	New Admin Building	New administration building (G+2) with a total built up area of about 2000 m^2.
6	New Boys' Hostel	New building for student's hostel accommodating about 160 boys. An area about 1200 m^2.
7	Toilets, Bathroom and Laundry	
7.1	New Toilets, Bathroom and Laundry	Four New external flush toilets including bathroom and Laundry to students' hostel and old classroom area. Each shall have 60m^2 area.
8	Staff Housing	Two bed room staff apartment (G+4) accommodating a total of 28 family. Total Area = 2212 m^3

C. PROPOSED RESOURCES

To undertake construction of these developments, a number of resources will be required that will range from personnel to equipment and materials, among others. These will include;

Equipment and Machinery: Cranes, Forklifts, Rollers, Excavators, Graders, Wheel loaders, Sino-trucks, Light-trucks;

Human Resource: These will involve the unskilled labour / casual labourers like chain-men, potters, diggers, and the skilled personnel like the drivers, fore-men, site engineers, site-environmental health and safety officers, among others. The unskilled workers will approximately be 50 persons and skilled persons will approximately be 10 – 20 persons. The proposed project will employ over 50 workers and effort will be instituted to ensure that 75% of local manpower will be used in the operation

Proposed materials required: Most of the construction material shall be sourced from within the community except for specialized building resources that will need to be sourced far from the project. Some of the material required shall include: -

- Murram for slope and level attainment;
- Cement for making concrete construction blocks;
- Water;
- Sand and gravel;
- Roofing materials
- Electro-mechanical among others.

D. PROPOSED CONSTRUCTION ACTIVITIES

During the project preparation and construction phase, several activities of significant risk to the environment will be carried out at the proposed sites and these in summary include:

- Clearing of the proposed site;

- Raising the structural concrete works;
- Levelling and stabilizing the compound/ground and establishing drainage system;
- Land excavation for the buildings foundation;
- Construction of the 4 primary roads as well as the parking area;
- Construction of temporally structures for security, stores, offices, sanitary and others;
- Erecting of Earth mounds around the site boundary to create a buffer zone; and
- Fencing off all the construction sites.

a. Project Duration

Expected project duration will approximately be 12 months (1 year), for construction of all the proposed facilities.

b. Proposed project Cost.

The proposed project cost is estimated at **$3,199,300 USD** ***(Three Million, One Hundred and Ninety Nine Thousand, Three Hundred Dollars only)***.Details of costs per project to be constructed has been provided under chapter 2 of this report..

E. PURPOSE OF THE ENVIRONMENTAL AND SOCIAL ASSESSMENT

Redevelopment and upgrading of these institutes will involve earth-work movements, haulage trucks movements, massive clearing of vegetation, water abstraction to facilitate construction, construction material extraction from surrounding environment and all these activities will result into noise generation, some level of contamination of both air and water quality, resulting from poor solid and liquid waste management and other activities that are associated with negative impacts, if not planned for, and these will interfere with the surrounding ecosystem functions, such as wetlands. The project is therefore likely to lead to significant environmental impacts that are both positive and negative in nature.

The purpose of the environmental impact assessment is therefore, to examine, and assess the impacts (negative and positive) of the proposed project with a view to ensuring that:

- The project will be environmentally sound and socially acceptable; and
- The project complies to the requirements of the National Environment Act. Cap 153, and other relevant legal frameworks as shall be elaborated under Chapter 4.

Projects proposed for World Bank financing are environmentally sound and sustainable, to improve decision making. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of Environmental Assessment (EA). Therefore, the proposed project falls under Category B of World bank classification.

F. SCOPE OF THE BASELINE ASSESSMENT

The baseline studies will be undertaken within the boundary of the institute, outside the institute boundary and in Lira District as a whole. The baseline conditions to be assessed are provided below.

Bio-Physical Environment	Socio-Economic Environment
Fauna and flora	Administrative set-up
Drainage and water resources	Population
Visual Amenities	Health and safety
Climate Change	Economic activity
Topograpgy and soil	Gender aspects
Geographical location	Ethinicity

Environmental and Social Baseline findings

The project area is generally made up of a combination of hills and relatively steep gradients

These baseline conditions of the proposed project areas considered both the conditions within the institute and those of Lira District as a whole. The baseline conditions have been reported in two folds; that is:-

- Baseline conditions of UTC - Lira;
- Baseline conditions of Lira District as a whole.

UTC- Lira

Bio-Physical Environment

Location

The college is located in lira municipality on Obote Avenue, Soroti road in northern Uganda about 300kms from Kampala city center.

Flora

The most abundant plant species included *Leonotisnepetifolia, Pennisetumpurpureum, Cynodondactylon* as well as food crops such as cassava (Manihotesculenta), bananas (Musasp), maize (Zea mays) and rice (Oryza sativa) among others.

Fauna Survey

Since the environment has undergone modification, most of the animal species found included domestic animals as well as rodents.

Socio-economic environment

Health facility

Through the IDB project, the institute has constructed a health facility. This health facility is set to treat all minor illnesses of the students and staff as well as benefit the neighboring community.

Building structures

Lira technical institute has some of the oldest buildings as compared to most of the technical colleges. Most of the buildings have asbestos roofing and were built as early as 1950. However, with the aid from Islamic Development Bank, a number of new structures have been put up and these have boosted the physical outlook of the institute.

Accommodation

In addition to the old blocks, the institute has got newly constructed dormitory units through the IDB fund. These are well equipped with satisfactory sanitary facilities. The girls on the other hand have only 2 accommodation blocks. The sanitation of these blocks is still lacking.

Staff accommodation units are located both towards the west and the east of the Institute. Some buildings have never been repaired since 1950s. As such, most of them are in a dilapidated state comprising of leaking roofs and faulty water systems.

Waste Management

Waste management in general is still a challenge in Lira Technical institutes. During field investigations, only a few waste collection bins were seen however sorting was not being undertaken.

Sanitary facilities

The majority of buildings were built in 1950s. These included the pit latrines situated outside the buildings.

Student Parliaments

Students in Lira Technical; Institute organized themselves in associations that bring them together in terms of the regions they come from. It is through these associations that their voices are heard, and their various cultures are preserved.

In bid to promote and support these associations, the administration designated various structures to facilitate their gatherings and among these is the Student Parliament.

Recreation facilities

The institute has a football field to the east, as well as a basketball court. These were furnished with mobile toilets (those previously used by refuges). However, most of these toilets are non-functional.

Energy

The Institute is connected to HEP. This is used in the accommodation units, classrooms and workshops. For cooking, the institute uses firewood. The kitchen is installed with boilers, all of which are no longer functional.

Lira District

Lira District is home to Uganda Technical College Lira (UTC Lira) a 67-year old government-owned technical institution with about 750 students.

Bio-Physical baseline

Historical Background

Lira District which was formed in 1974 from the then Lango District is occupied by the Lango ethnic group with its sister districts Apac , Oyam, Otuke, Alebtong, Amolatar, Kole and Dokolo also mainly occupied by the Lango ethnic group.

Location and size

Lira District is located in Lango sub-region in Northern Uganda and is bordered by the districts of Pader and Otuke in the North and North East, Alebtong in the East, Dokolo in the South and Apac in the West.

Geology and Topography

The greatest proportion of Lira District comprises undifferentiated gneisses including elements of partly granitized and metamorphosed formations. The main rock types are cleaved grey sandstones and grey phyllites, while quartzite and feldspathic sandstones are found in the lower part of the succession.

Ecological Resources

Lira district has nine main vegetation types including moist thickets, woodland, moist acacia savanna, Moist *Combretum Savanna, Butyrospermum Savanna, Palm Savanna, Dry Combretum Savanna.*

Climate

Lira District has a continental climate modified by large swamps in its southern part. The rainfall in the district is bimodal with one peak during April-May and the other in August-October. Absolute maximum temperature rarely rises beyond 36^0C and absolute minimum rarely falls below 20^0C.

Socio-Economic Baseline

Population and Demographics

In 1991, the Uganda national population census estimated the population in the district at about 191,500. Eleven years later, the 2002 national population census, put the district population at about 290,600, with an annual population growth rate of 3.4%. In 2014, Lira District had a total population of 408,043 with the males being 196,663 while the females were 211,380. (National Population and Housing Census 2014, Lira District)

Land use and tenure

The district covers a total area 1326 km2 of which 1286.22 km2 (or 97%) is land. Land is prevalent under cultivation, settlement or covered by natural resources (forests and watercourses). Wetlands in Lira District cover about 419 km2.

Health and sanitation

Health directly impacts on labour productivity of a population. Lira District has 28 health facilities of which 21 are government-owned while seven are Private-Not-For-Profit (PNFP) health units.

Education and literacy

Enrolment remained at about 50%, and there is currently a teacher gap of 172 and a deficit of 503 classrooms at current enrolment level. Primary education is faced with several challenges, including poor remuneration of teachers.

G. POLICIES, LEGAL AND INSTITUTIONAL FRAMEWORK

The environmental and social impact study was conducted within the following policy, legal and institutional framework, taking into consideration the multilateral agreements to which Uganda is a signatory, and the World Bank Safeguard Policies.

Policy and legal framework

Policy Framework	*Legal Framework*
• The National Environmental Management Policy, 1994 • The National Water Policy, 1999 • National Gender Policy 1997: • National Wetlands Policy,1995 • Gender in Education Policy, 2010 • National Physical Education and Sports Policy; 2004	• The National Environment Act, Cap 153 • The Water Act, Cap 152 • The Land Act, Cap 227 • The Occupational Safety and Health Act, 2006 • The Public Health Act, Cap 281 • The Universities and Other Tertiary Institutions Act, 2001 • The Business, Technical Vocational Education and Training Act, 2008; • The Local Governments Act, Cap 243 • The Planning Act, 2010 • The Workers' Compensation Act, 2000: *Regulations* • National Environment (Noise Standard and Control) Regulations (2003) • National Environment (Waste Management) Regulations 1999 • The Constitution of the Republic of Uganda. 1995: • The EIA Regulotions.1998: • The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations. 1999; • Any other relevant laws.
Multi-Lateral Environmental and Social Agreements (MEA)	*World Bank Environmental and Social Standards*

• The Convention on Biological Diversity (CBD) • The United Nations Framework Convention on Climate Change (UNFCCC), 1992 • The Convention for the Safeguarding of the Intangible Cultural Heritage, 2003 • The Stockholm Convention • The Strategic Approach to International Chemicals Management (SAICM)	❖ Environmental Assessment (EA) (OP/BP 4.01), ❖ Physical Cultural Resources (OP/BP 4.11), ❖ Involuntary Resettlement (OP/BP 4.12),

H. STAKEHOLDER ENGAGEMENT

Stakeholder Engagement aims at building and maintaining an open and constructive relationship with stakeholders and thereby facilitating and enhancing a project's management of its operations, including its environmental and social effects and risks.[1] Most of the consultations undertaken were conducted in the Month of August to September. During this exercise, different stakeholders were consulted ranging from Government officials to the local community members. These included:-

Government Bodies
Uganda AIDS Commission - (HIV/AIDS) and
Some of the key findings collected included:-

- Contractor should have an HIV/AIDs policy and a plan to mainstream HIV/AIDs interventions into construction
- Undertake stakeholder consultation at all levels;
- Use IEC material both within the camp and outside;
- Some construction companies focus more on raising awareness on HIV to their workers other than the community in which the project is being undertaken.

Ministry Of Gender, Labour and Social Development, Department Of Gender

- Adequate Signage during works;
- Safe keeping, transporting, managing the use of explosives;
- Contractor should always have a First Aid Kit on site, and workers should be trained to use them;
- Emergency Preparedness Plan; and a stand-by vehicle in case of serious accidents;
- Demarcate using reflector tape on excavations;

[1] World Bank Group (), Guideline Tools for Pollution Control - Stakeholder Engagement and Grievance Mechanisms, retrieved from http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/UpdatedStakeholderEngagementandGrievanceMechanisms.pdf

- Provision of adequate Personal Protective Gear after a risk assessment is carried out;
- Each project should have a Safety Officer;
- Prepare a Safety and Health Management Plan;
- Prepare a Safety and Health Policy; Here the contractor commits himself to ensuring safety on site
- Insurance of Workers equipment;
- Provide water and food to workers;
- Adequate sanitary facilities that are gender sensitive
- Have material safety data sheet in cases of hazardous chemicals;
- Fire-fighting equipment e.g. fire extinguisher and workers should be trained to use them.

District and Local Leaders as well as the community

A meeting was also held with the District, community leaders and the local stakeholders where the project is located between 7th – 14 of August 2018. Some of their views included:-

The Lira District leadership included:-

- The EIA should have restoration plans to restore the site after completion of construction for items like pits which will have been dug during construction.
- The team should have plans for proper waste management.
- Gender considerations (e.g.) separate toilets for each gender.
- The CAO informed the team to mind the type of fence used and he proposed the use of chain link.
- The buildings to be constructed must have earthquake protection because the area is very prone to earthquakes
- Roofing of the buildings should be done with tiles and not asbestos.
- The buildings must consider persons with disability (PWDs) and breast feeding mothers.

Community concerns and views include the following.

- The contractor should ensure that there is proper drainage since the school is near the main road.
- Consider construction of an incinerator for proper disposal of waste sanitary pads.
- The contractor must provide safety gear for the workers. (eg) helmets, gloves, boots etc.
- The contractor must construct a clinic for its workers and not use the institute's clinic and nurse because the numbers are overwhelming.
- There should be HIV awareness and sensitization.
- Consider proper disposal of waste.
- The contractor must provide identification for all its workers since the community will have new people working for the contractor.
- The contractor should find solutions to control alcohol and substance abuse for its workers.

Stakeholder Participation Plan during project implementation

During project implementation activities, it is imperative that different key stakeholders continue actively participating in the project. These Multi-Stakeholder Engagement Plans are important due to the following reasons:-[2]

- Produce solutions to the complex situations;
- Keep the public aware of the ongoing construction activities; and
- Collect possible complaints from the affected persons and produce possible solutions.

All the stakeholders that participated at the consultation stage shall be mantained during both construction and operation such that continuos monitoring among other reasons is achieved.

Concerns to be considered during the Operational Phase

- Some of the concerns that will continue to require stakeholder engagements include:-- Monitoring and maintenance of the green field and the landscaping undertaken;
- Waste management strategies to ensure the institute is kept clean;
- Maintenance of all the drainage channels
- HIV/AIDS sensitization and awareness creation;
- Required improvement on the teaching facilities curriculum among others
- Continuous collaboration of the neighborhood/ neighboring community

I. SUMMARY OF POTENTIAL IMPACTS

Certainly, construction and operation of the proposed projects listed above will result into both negative and positive impacts more particularly during the construction phase.

a. A summary of the Positive impacts expected is provided in Table 4 below.

Table 2: Summary of potential positive impacts

During Construction Phase	During Operation Phase
1. The project will source for construction material within Lira District itself which will uplift the economic standards of people's there-in. 2. Sprouting businesses such as temporary accommodation units or mini-restaurants for project workers; 3. Economic-investment hence increases in wealth of the sub county. 4. The development will make the most economic use of the land 5. Economic-investment hence increases in	1. The goal of the proposed project will have been achieved; 2. More students are likely to enrol onto different technical programs; 3. More students are likely to graduate 4. Improve on service delivery of the institute; 5. Create more job opportunities of both the skilled and unskilled personnel; 6. The proposed projects have

[2] UNDP, November 2006, Multi – Stakeholder Engagement Processes, A UNDP Capacity Development Resources.

wealth of the sub county. 6. The development will make the most economic use of the land 7. Provision of income to service providers that will be servicing the site with different products and services. 8. Provision of direct and indirect employment opportunities;	landscaping instituted which will further beautify the institute and restore the cleared unused section; 7. Increase on the institutes earning 8. Improved UTC – Lira into COE will greatly benefit the people of Lira providing better education services at an affordable price thus giving an opportunity to all able to access an education and develop a particular skill.

b. A summary of potential environmental and social negative impacts and their mitigation measures are presented in Table below:

Most of the negative impacts will occur during construction phase, and less during the operation phase. Below are the negative impacts anticipated both during mobilization, construction and operational phases.

Table 3: Anticipated negative impacts and proposed mitigation measures

Activity/ impact	Mitigations
Impacts during pre-project / Planning/mobilization phase	
Increased traffic load and dust generation	• Sensitization of the staff and students at the institute of the possible increment of vehicle load in the institute when ferrying in the required equipment and material • Sensitization of drivers to maintain low driving speed when in the institute; • Scheduling movement of these mobilized equipment at a preferred time as shall be advised by the institute management
Influx of persons looking for jobs	• Prepare a comprehensive Recruitment Plan/Labour Force Management, which shall include the following among others: • All job seekers shall be allowed into the institute on recruitment days only; • Recruitment days shall be scheduled in times that will not affect the institute operational programs • No idlers will be allowed or tolerated in the institute • Prior communication of the recruitment program shall be

	communicated to the institute management; • Sensitization of neighboring communities on the possible increase in persons looking for jobs that will be coming from different parts of Uganda, so as to manage expectations
Interruption of institute activities	• All activities to be conducted during the mobilization stage shall be communicated to the institute and their recommendations shall be adhered to.
Impacts during construction phase	
Dust and noise generation	• The site will be hoarded off. • The Generator (s) will be housed to provide acoustic screening; • Sprinkling of water will be done on dusty surfaces (at least 3-4 times a day) to suppress dust emission; • Oiling and greasing of machinery will be done to reduce noise due to friction; • Sound-reduction equipment will be fitted to machinery and maintained properly; • Noisy construction works shall be restricted to day-time (7am-5pm), and as shall be recommended by the NEMA. ; • Construction vehicles will be restricted to a speed limit of 20km/hr within the institute;
Loss of vegetation	• Excavation works will be limited to the proposed sites, • Replanting of vegetation such as trees is encouraged after construction, along access routes to the proposed sites and where shall be advised by the administration in reference to the contract requirements; • Topsoil from these sites will be properly kept for restoration after completion of the project construction phase
Impacts from excavated soils	• A temporary retention wall will be constructed along the boundary to prevent massive erosion into the green area surrounding the proposed site. • The site will be hoarded off immediately after clearing vegetation and excavations, soil barriers shall be erected. • All vehicles transporting excavated soils off or to site, will be covered with a tarpaulin and will not be over heaped to prevent spillage of soil along the roads.

Effects of generated solid waste including debris, packaging	• Have at least one coded waste bins at each work station for collection of solid waste. • Ensure that hazardous waste e.g. oil contaminated cloths are stored separately from non-hazardous waste in leak proof drums with lids. • Reduce waste by encouraging re-use of wood waste either on site or at other sites or sell it off as firewood. Metal scraps should be sold to scrap collectors'/ smelting factories. • Hire a licensed waste collection company to remove all waste from the construction sites;
Risk of contaminated of soil and surface water.	• The generator and all construction equipment will be serviced regularly on/ off site. If serviced on-site, precautions to prevent leakages/ spills or used oil from the generator must be under taken, such as construction of a concrete bund around the generator. • Spill kits should be used during re-fueling and servicing. • Petroleum products in storage specifically fuel for the generator should be stored under lock and key. • All flammable substances kept on site shall have a fire-extinguisher within the vicinity to manage all fire outbreaks. The fire extinguishers must be duly serviced by a reputable company, and next service date indicated. Fire drills must be conducted regularly and training of the use of fire extinguishers undertaken regularly.
Injury to workers on site	• The contactor shall prepare an Environmental Health and Safety (EHS) Policy and EHS Management Plan and provide safety and healthy guidelines to guide all operations. • Appropriate PPE will be provided and used by all workers. • All workers will have identification and be issued with contracts as required by the employment act • Safety and health training will be provided to all workers prior to commencement of work. • The Site clinic shall be opened up to address emergency cases, or collaboration to utilize the health dispensary already existent in consultation with the institute administration. • The workers will have access to a first aid kits which will be present at the construction areas. • A site Environment Health and Safety Officer shall be hired and must be present on site throughout the duration of the project.

	• Monthly health and safety audits must be conducts. • Provide appropriate warning and safety signage for guidance of construction workers and visitors. • Safety belts will also be provided to workers working at height.
Impacts on public health	• Install mobile sanitary facilities for use by the construction team or consult the institute in case of possibilities of using the already existing facilities; These must be furnished with water, toilet paper, vim, soap at all times, and must have a full time cleaner. • While sourcing material from community, the following should be observed: -Ensure land lease/consent agreement and agreed and signed by both parties • Adequate compensation / purchase of material sourced • Drive at recommended speed to limit on raining dust; • Maintain good conduct to avoid project – community conflicts; • Sexual abuse, marriage-breakages and early pregnancies should be avoided; among others. • Restore all used material sites before handover to the owners. • Exercise good housekeeping practices, e.g. sweeping and cleaning the site
Waste Management	• Prepare and implement a comprehensive waste management plan that complies with the national waste management regulations, 1999 and World Bank Safeguards/Operational Policy on Environmental Assessment (EA) (OP/BP 4.01), • Identify and gazette a temporary waste collection area on site • Segregate waste into biodegradable and non-biodegradable categories. • Do not litter waste • Hire a NEMA licensed waste handler to collect and dispose of waste • Do not burn waste on site. • Make records of waste generated and disposed off weekly
Traffic congestion and interference along community access road	• Prepare and implement a traffic management plan • Deploy a reasonable number of (4 – 8)full time flag persons (preferably a ladies), to manage both the construction traffic and the institute traffic; • Installation of speed humps at all access routes used by construction traffic;

	• Erect signposts indicating speed limits; • Sensitize drivers to observe the recommended speed limit while driving within the institute; • Safety awareness campaigns shall be conducted or both the construction workers and the institute personnel's;
Occupational Health and safety impacts	• Have in place a clinic, nurse and fully equipped first AID kits or improve on the current clinic facilities to also treat construction workers. • Undertake HIV awareness campaigns • Install safety signage and messages along the access roads used by the contractor. • Have in place and implement a Health and Safety Management Plan • Provide adequate PPE for all workers depending on the construction activities they are involved in. • Put in Place a workplace Safety Policy • All hazardous areas should be condoned off with limited or authorized entry;
Impact on site Drainage and hydrology	• Construct stone pitched drainage channels around the college to handle storm water runoff • In busy sections, stone pitched drainage channels should be covered to avoid accidents • Install gutters on all buildings and tanks for rain water harvesting
During Operational Phase	
Risk of fire outbreaks	• Presence of fire escape gate and emergence assembly points. • A water sprinkler system to cover the workshop in which the equipment is installed and stores shall be designed. • Carbon dioxide and powder type fire extinguishers are best preferred and these should be placed at convenient locations and duly serviced by reputable company. • Install fire detection systems in each structure at site.
Solid Waste Management	Active operations of all the constructed facilities (student hostels, offices, dining halls, libraries, cafeteria, classrooms and workshops among others will be associated with generation with large quantities of solid waste. All these kinds of waste will have to be planned and properly disposed of. The waste will range from paper, plastics, metal scraps and wood-cuttings among others. • A Waste management Plan should be put in place;

	• Waste management hierarchy should be observed, that is avoidances, and if avoidances can't be achieved, minimization measures should be incorporated.
	• Biodegradable waste can be disposed of into a well monitored composite pit;
	• All plastic and plolythene will be segregated from the waste and taken to recyclable collection centers;
	• Hazardous waste material will be stored separately as they await disposal by a registered waste handlers;
	  • Waste collection should be segregated; and
	  • Re-usable waste should be stored properly.

Liquid waste management	• Wastes from workshop area will include used oils among others • All hazardous material generated from the laboratory should be stored safely as they await transportation for disposal; • Hazardous material on site should be safely stored in Registered Storage Units; • Hazardous storage units • A NEMA registered wastes handler services should be procured so that they can occasionally take the material for disposal; • Waste from the laboratories containing chemicals and pathogens should be treated before disposal; • The waste should be stored appropriately such that no spillage is undertaken. • Waste water from the concrete batching and block making department will be treated through settling ponds and the waste in the final pond, will be tested for pH and therefore treated before disposal.
Sanitary waste/ management of sewage	• Construct water borne toilets. • Ensure full time cleaners are hired • Equip the toilets with water full time, and toiletries (toilet paper, soap, fresheners, vim). • Construct adequate soak pits and septic tanks for treating sewage waste. In cases where the septic tank is full, a registered domestic cess-pool waste handler shall be engaged. • Sewage can also be disposed of by re-using it for Bio-gas generation. • On average, after every 5 years, hire services of a NEMA licensed cesspool emptier to empty the septic tanks.
Impact on site Drainage and hydrology	• Regularly desilt the drainage channels to allow free flow of water • Periodically check the condition of the drainage channels and repair the damaged

	• Carry out water harvesting as an alternative waster source, but also as a more suitable way of handling storm water

J. RECOMMENDATIONS

The proposed projects once implemented will contribute greatly to achieving the bigger Government goal of "Skilling Uganda" as required by the "The Business, Technical and Vocational Education and Training (BTVET) strategic plan launched in 2012". Construction of these projects are however, associated with both positive and negative impacts which have been identified and assessed above and under Chapter 8 so as to determine the level at which these impacts are detrimental. The consulting team has therefore proposed adequate mitigation measures that if implemented at the appropriate time will reduce on the sensitivity of each impact.

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

The Government of Uganda launched a Business Technical and Vocation Education and Training (BTVET) Strategic Plan 2012/13 to 2021/22 entitled "Skilling Uganda" in 2012. The Skilling Uganda strategy aims to transform the BTVET system from an educational sub-sector into a comprehensive system of skills development for employment, enhanced productivity and growth. The strategy emphasizes a paradigm shift for skills development which essentially aims at realigning the policy and institutional framework as well as investment in skills development to transform the current supply-driven system to demand driven, employable skills and competencies to the labour market and the growing Ugandan economy.

In line with the above development, the Government of the Republic of Uganda represented by the Ministry of Education and Sports has received financing from the International Development Association (IDA) in the form of a credit (hereinafter called "credit") towards the cost of Uganda Skills Development Project (USDP). Under this project, the feasibility studies, environmental and social safeguards assessment, detailed design, documentation and construction supervision of civil works for renovation and upgrading of institutional buildings proposed for Centres of Excellence (CoEs) and Vocational Training Institutes Lot 1: Uganda Technical College Lira&3 Network Institutes was pioneered. For this project to be implemented successfully, it is required that there is at most compliance to the Environmental and Social Safeguards. This therefore begins with having an Environmental and Social Impact Assessment report prepared, which is then sent to the National Environmental Management Authority for approval as well as to the World Bank for a "Non Objection" approval.

With regards to Uganda Technical College Lira, has a number of projects have been prioritized in the preliminary report, and these have been considered for implementation as a single contract.

The college was founded in 1948 to offer technical training to World War II veterans. It therefore started admitting primary school leavers as a Technical school.

In 1972 it upgraded to a technical institute admitting secondary school leavers 'O' – Levels to pursue craft certificate courses. In October 1984 it was upgraded to a technical college admitting secondary school leavers who have completed advanced level of education.

The mission of the institute is to enable a trainee acquire knowledge and skills in science and technology aimed at producing a competent graduate who contributes towards individual and national development in a changing world of work.

The College currently runs Diploma and Certificate Level Courses in the following fields:

- Automotive
- Building, construction and the built environment
- Engineering and manufacturing technologies
- Information and communication technology

1.2 Background of the project

The Business, Technical and Vocational Education and Training (BTVET) in Uganda has suffered from weaknesses in five major areas. These include; relevance to economic growth, quality of skills provision, access and equity, organizational effectiveness and financial and internal efficiency. The system does not produce the appropriately skilled workforce that Uganda requires to increase income and employment and to compete internationally. The training institutions do not deliver training commensurate to the required standards and few students access this training.

To overcome the above challenges, in 2012, the Government of Uganda through Ministry of Education and Sports (MoES) launched a BTVET Strategic Plan 2012/13 to 2021/22 entitled "Skilling Uganda". This plan underscored a paradigm shift in skills development in the country. The plan emphasized creating employable skills and competencies relevant to the labour market rather than educational certificates as was before.

The plan has five specific objectives to reach the development objective[3]:

1. Raise the economic relevance of BTVET;
2. Increase the quality of skills provision;
3. Provide equitable access to skills development;
4. Achieve greater organizational and management effectiveness in BTVET; and
5. Increase internal efficiency and resources available for BTVET.

The World Bank funded, USDP is one of the options the Government of Uganda initiated to operationalize the BTVET Strategic Plan. USDP is a five (5) year project which was approved in April 2015 and became effective in October 2016. USDP targets enabling programmes to meet skills needs in key priority sectors of the economy i.e. Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040.

1.3 Objectives of USDP

The overall goal of USDP is to enhance the capacity of institutions to deliver high-quality, demand driven training programs in the agriculture, construction and manufacturing sectors and create stronger linkages between vocational training and industry. The objectives comprise establishing Centers of Excellence (CoEs) at targeted sectors with a network of vocational institutions (with well-prepared students; well-trained faculty; high quality relevant curricula; adequate facilities and equipment; teaching resources and assessment systems), an institutional framework that encompasses sector skill councils.

The specific objectives of USDP include the following:

- Improving the relevance of skills provision to improve productivity and enhance growth in the Uganda economy;
- Improving the quality of skills imparted;
- Increasing access to and equity within BTVET sector;
- Improving organizational and management effectiveness; and
- Improving financing and internal efficiency.

The project will have the following desired outcomes/performance indicators:

- Development of National Occupational Standards for relevant trades/occupations in the target sectors;
- Increased number of new intakes in the targeted training programs;

[3]Ministry of Education & Sports: Skilling Uganda, BTVET Strategic Plan 2012/3 To 2021/2

- Increased proportion of female intakes in targeted training programs;
- Increased proportion of entrants to the industry who completed targeted training courses and skills;
- Improved linkages between the skills training institutes and the industry and participation of employers in the skill training programs;
- Satisfactions with skills by trainees in supported firms disaggregated by economic sectors and size.

1.4 Centers of Excellence

The Ministry of Education and Sports (MoES) identified three subsectors of the economy namely; Agriculture, Manufacturing and Construction as main drivers of the economy and targeted the youth in the Business technical and vocational institutions as one of the major players in skills development. In that line, four colleges namely; Bukalasa Agricultural College, The Uganda Technical College-Lira, The Uganda Technical College-Bushenyi and The Uganda Technical College-Elgon were identified to become the Centres of Excellence (CoE) in training and equipping the students with competent knowledge in manufacturing, agriculture and construction.

Each centre of excellence point will then network with three public and private vocational technical institutions (VTIs) which will train in artisan and craftsman trade that are lower down the value chain. These are to benefit from the upgrading of the physical infrastructures as one objective of skills development project.

Establishing the CoE at the targeted colleges is planned through partnership with an International Twining Partner Institutes to support the implementation of the following key activities:

- Improving Institutional Governance;
- Enhancing equity;
- Design and adaptation of demand driven competency-based curriculum and assessment systems to international standards;
- Training for faculty and staff; development of training and learning materials;
- Establish and upgrade physical infrastructure, including civil works and establishment of modern workshops and classrooms with latest equipment and multi-media facilities; and
- Support to improve management and monitoring mechanisms within CoEs.

1.5 Purpose of the Environmental and Social assessment

Rehabilitation of these institutes will involve earth-work movements, movements by haulage trucks, massive clearing of vegetation, water abstraction to facilitate construction, borrowing construction material from surrounding environment. And these activities, among others, will result in negative impacts such as noise nuisance, some level of contamination of both air and water quality, waste generation and disposal effects, which if not mitigated, will cause adverse impacts to the environment.

The purpose of the ESIA is therefore to examine, analyse and assess the impacts (negative and positive) of the proposed project with a view to ensuring that:

- The project will be environmentally sound and socially acceptable; and
- The project will be in conformity with the provisions of the National Environment Act Cap. 153other relevant government policies, laws and regulations.
- They are environmentally sound and sustainable, and thus to improve decision making as required by World Bank Environmental and Social Framework. The World Bank undertakes environmental screening of each proposed project to determine the appropriate extent and

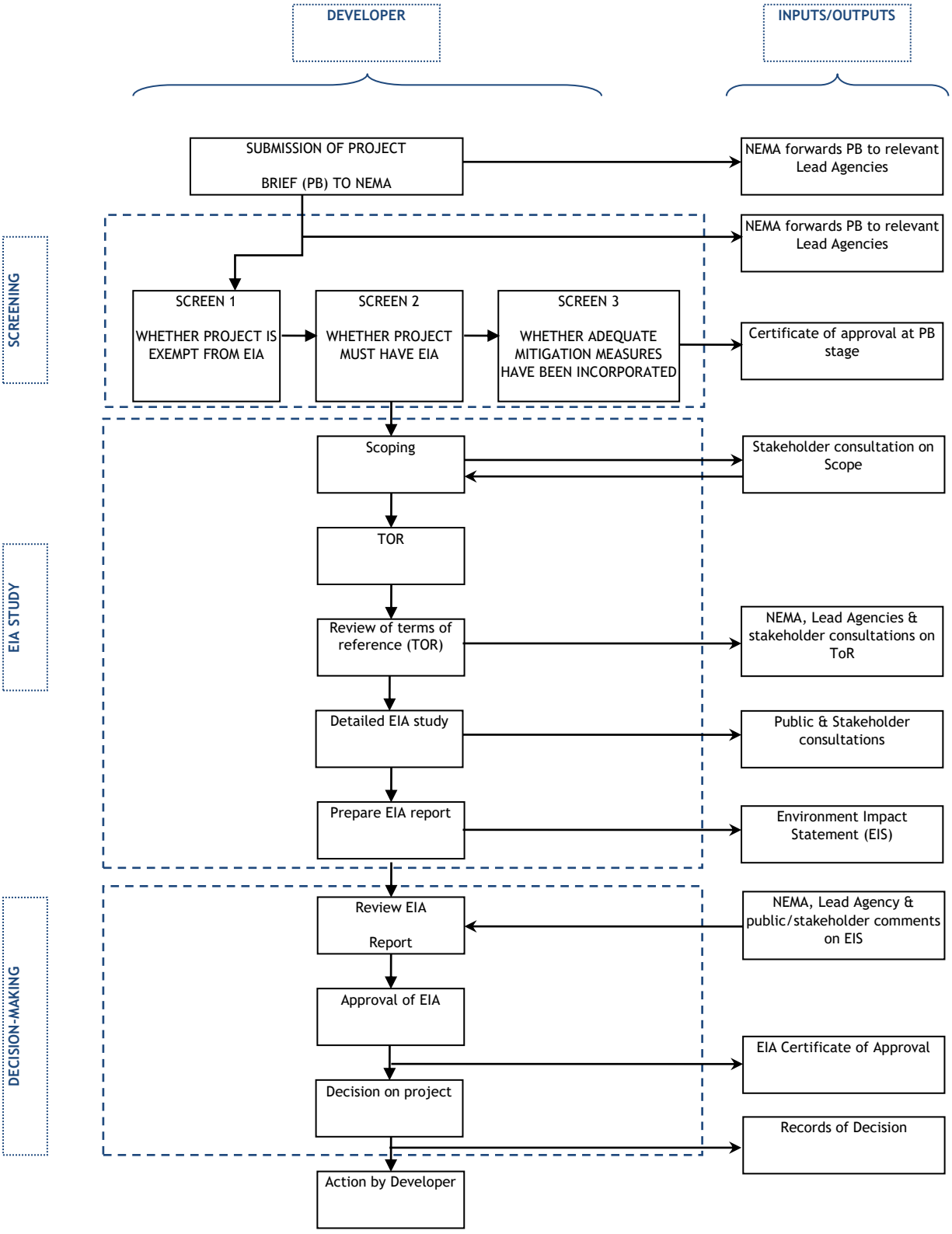
type of environmental assessment (EA). In reference to the 2014, MoES - Project Appraisal Document for these projects, World Bank classified this project under Category B out of the category A, B, C and F1. This was done depending on the type, location, sensitivity, and scale of the project, nature and magnitude of its potential environmental impacts from the screening exercise undertaken when developing the Environmental and Social Management Framework (2013).

1.6 Scope of the ESIA

The scope of this Assessment study is guided by provisions in the first schedule of the EIA regulations for Uganda **as well as the applicable Wold Bank Operational Policies.**

A number of methods have been applied during the environmental assessment including; literature review (review of design reports, legislative framework, district and sub-county development plans, and other documentation), field investigations (identification of sensitive receptors, social baseline data collection and analysis, stakeholder consultations, biodiversity assessment measurement and assessment of noise, vibrations and air quality) and direct observations.

1.7 The EIA process in Uganda



2. PROJECT DESCRIPTION

2.1 Location of the Project in Uganda

The proposed project is located in Lira Municipality, Lira District located in the Northern part of Uganda. Lira District is located in Lango sub-region in Northern Uganda and is bordered by the districts of Pader and Otuke in the North and North East, Alebtong in the East, Dokolo in the South and Apac in the West. Below is an image showing the location of Lira District in Uganda.

Figure 1: Showing Map of Uganda and location of Lira District

2.2 Project site location

The college is located in Lira municipality of Lira District on Obote Avenue; Soroti road in northern Uganda about 300kms from Kampala city center, at GPS coordinates 36N488462.21mE, 246633.92mN at an elevation of 11800m a.s.l (UTM – WGS 84). Uganda Technical College Lira is a recognized public tertiary institution under the Ministry of Education and Sports directly being supervised by the department of Business Technical Vocational Education and Training (BTVET). The college was

founded in 1948 to offer technical training to World War II veterans. It therefore started admitting primary school leavers as a Technical school. In 1972 it upgraded to a technical institute admitting secondary school leavers 'O' – Levels to pursue craft certificate courses. In October 1984 it was upgraded to a technical college admitting secondary school leavers who have completed advanced level of education.

The college is seated on 80 acres of land and is bordered by private and to the East, Lira – Soroti road to the West, Agwata road to the North and Private land to the South as illustrated in the Google aerial image in Figure 2. Below. -

Figure 2: Ariel view of Uganda Technical College - Lira

From the map presented above, below are Boundary Co-ordinates of UTC – Lira.

Table 4: Showing boundary coordinates

Label	Zone	Eastings	Southings
B1	36N	488138.21 m E	246822.09 m N
B2	36N	488675.87 m E	246993.67 m N
B3	36N	488871.95 m E	246427.17 m N
B4	36N	488353.89 m E	246271.36 m N

2.3 Status of the Current facilities whose capacity is to be strengthened

A number of projects have been considered for implementation in order to upgrade Uganda Technical Collage - Lira into a Centre of Excellence. In order to appreciate the need for the proposed redevelopment, it is prudent that the current state of the technical college is sufficiently described which will justify the need for strengthening the institutes infrastructure by implementing the planned projects.

2.3.1 Student classrooms

Majority of old buildings are in poor condition requiring immediate renovation work including full replacement of the Asbestos roofing sheets. One building is completely damaged by termites and abandoned. The other building originally serving for plumbing workshop is under renovation and repurposed into lecture room. The college need to ensure the following minimum requirements for college classrooms are met during further renovation and maintenance period:

- Adequate number of students chairs and tables with proper seating arrangements for visibility;
- Adequate instructional area including one to two 24" x 60" instructor table with modesty panel with chars at the table;
- Proper lighting, screen, power sockets, data/telephone points easily accessible from adefined wall area near the instruction podium;
- Room dimension ratio in some occasions exceed the minimum acceptable range of 1:1.3 to 1:2.0 with the instructional end on the narrower dimension;
- Doors to be located at the rear or back side of the room;
- Exterior windows not to be located within 4.5m of the front wall, to prevent light glare on screens and chalkboards;
- All openings, cracks, joints to be caulked to minimize sound transmission.
- All penetrations and wall elements to be sealed and designed to minimize noise entry into room.
- Flooring to complement acoustical needs for room for meeting acoustical requirements. In most cases floors are finished with floor screed

2.3.2 Library

The main Library having a total size of 188.00 m2 is located within same block, which is currently functioning for Electric and Plumbing laboratory next to the conference hall in the block coded as "02" in the attached Google earth Map. The condition of the building is fair as it was built relatively at a later stage in 1998. However, the infrastructure facilities available in the Library are very limited.

- There is no enough space for stacking books, periodicals and journal;
- The reading room is not well-furnished;
- The shelves (steel + wood) need to be upgraded for the safety of the books and ease references;
- The library is not computerized;
- No internet facilities to subscribe e-books and e-journals;
- Sub-standard quantity and quality of reading chairs, tables, display racks and magazine rack;
- Absence of carpet floor/ insulated floor finish for service counters and other sections of the room for controlling sound transmission;
- Absence of proper ventilation mechanisms and own toilet facilities;
- Fixing of notice boards, research cubicles for scholars/teachers, providing uninterrupted power supply systems (UPS, generator, etc.) along with due attention to overall building maintenance and cleanliness also need consideration.

2.3.3 Dilapidated Buildings

Dilapidated Buildings

Extremely Poor Condition Buildings/ abandoned calling for immediate rehabilitation;

Some of the staff houses, and the plumbing workshops are extremely deteriorated from lack of renovation and the prevailing termite attack. The workshop is abandoned and not providing services. The timber doors and windows are completely damaged, mechanical and electrical systems are not working; walls, paving tiles and the roof cover need replacement. The structural frame and foundation of the buildings have no sign of failure. As these buildings are made of load bearing systems, foundations and structural systems are maintainable. However, the cost for renovation such buildings are relatively equivalent to the cost for new building. It is recommended to demolish such buildings and look for high rise buildings with vertical expansions.

Dilapidated Buildings

Deteriorated buildings with wall cracks, damaged asbestos roofing cover and water leakages, washed away paving tiles, patched wall and floor finishes, hinges and locks of door and windows not properly working, no storm water drainage around the building, mechanical systems of toilets not properly functioning,

deteriorated or no ceiling. Although these buildings are highly deteriorated due to mainly lack of major renovation work, the buildings foundation and structural system are still intact and no sign of settlement and structural failure. Motor Vehicle workshop, civil and carpentry workshops, Student's Hostel, staff accommodation and almost all toilets are in poor condition requiring immediate rehabilitation and renovation work.

2.3.4 Generator House

UTC – Lira has a generator house of 54 m2 area in the student's accommodation zone, which is made of simple blocks covered with corrugated iron sheets. The generator capacity is low (25 KVA) serving only very limited facilities such as lightings to classrooms, administration building, workshops and laboratories. It is not connected to all structures. The generator power is too low to provide adequate power to equipment and tools in the workshop and laboratories, hence need to be upgraded. There exists space in the building to house additional generator after minor renovation work on the facilities.

2.4The proposed projects

The review of the feasibility and preliminary design engineering reports, proposes a number of projects that need to be implemented by Uganda Technical College – Lira, in order to transform it from the current status quo to a Centre of Excellence. These projects have been categorised as those that are curriculum based and those that are not curriculum based, and all of them have been considered for development under one lot.

This environmental and social impact assessment clearly described in detail as the projects to be implemented under the UDSP financing. The table below provides for all the developments that have been proposed for implementation as a way of beginning the journey to achieving Uganda Technical College – Liras a Centre of Excellence.

Table 5: Projects Considered

Project Priority	Project	Description
1	**New NAIT Classroom Block at UTC Lira**	48m x 10m new NAIT block comprising of 5 independent rooms. These are Admin Room, Computer lab, Classroom, Lab and storage room. Built up area - 500 m^2
2	**Upgrade of Utilities**	
2.1	Upgrade the existing transformer by 500 KVA	The existing transformer has 315 KVA capacity and cannot support the prevailing infrastructure development. It shall be upgraded further by 500 KVA to support the workshops and current infrastructure developments.

2.2	Backup Generator	Supply and install 200KVA backup generator for the workshops. The actual capacity requirement will be determined after design.
2.3	Internet Access	The national information technology authority of Uganda (NITA-U) has a plan to supply an optical fiber for all Colleges within the coming years. It should at list be of 20mbps and we would recommend that they design it in a more scalable way such that it can be upgraded in a short time possible if needed for future expansion. The incumbent infrastructure to provide internal connection to the fiber-cable of NITA-U. The cost for internal installation is considered in the respective estimates.
2.4	Safety and Security	External Solar night lights, CCTV and Signage.
3	**Classrooms**	Six new classrooms each 90 m2 for the existing students with gross area of 540m2.
4	**New Girl's Hostel**	New building for girl's hostel accommodating about 160 girls. An area about 1200 m2.
5	**New Admin Building**	New administration building (G+2) with a total built up area of about 2000 m^2.
6	**New Boy's Hostel**	New building for student's hostel accommodating about 160 boys. An area about 1200 m^2.
7	**Toilets, Bathroom and Laundry**	
7.1	New Toilets, Bathroom and Laundry	Four New external flush toilets including bathroom and Laundry to student's hostel and old classroom area. Each shall have 60m^2 area.
8	**Staff Housing**	Two bed room staff apartment (G+4) accommodating a total of 28 family. Total Area = 2212 m^3

2.4.1 Zoning & Land use

In order to integrate the proposed development and the future projects, it is imperative that the institute is zoned so as to incubate distribution of infrastructure among others over the 80 acres of UTC-Lira land as illustrated in the image below.

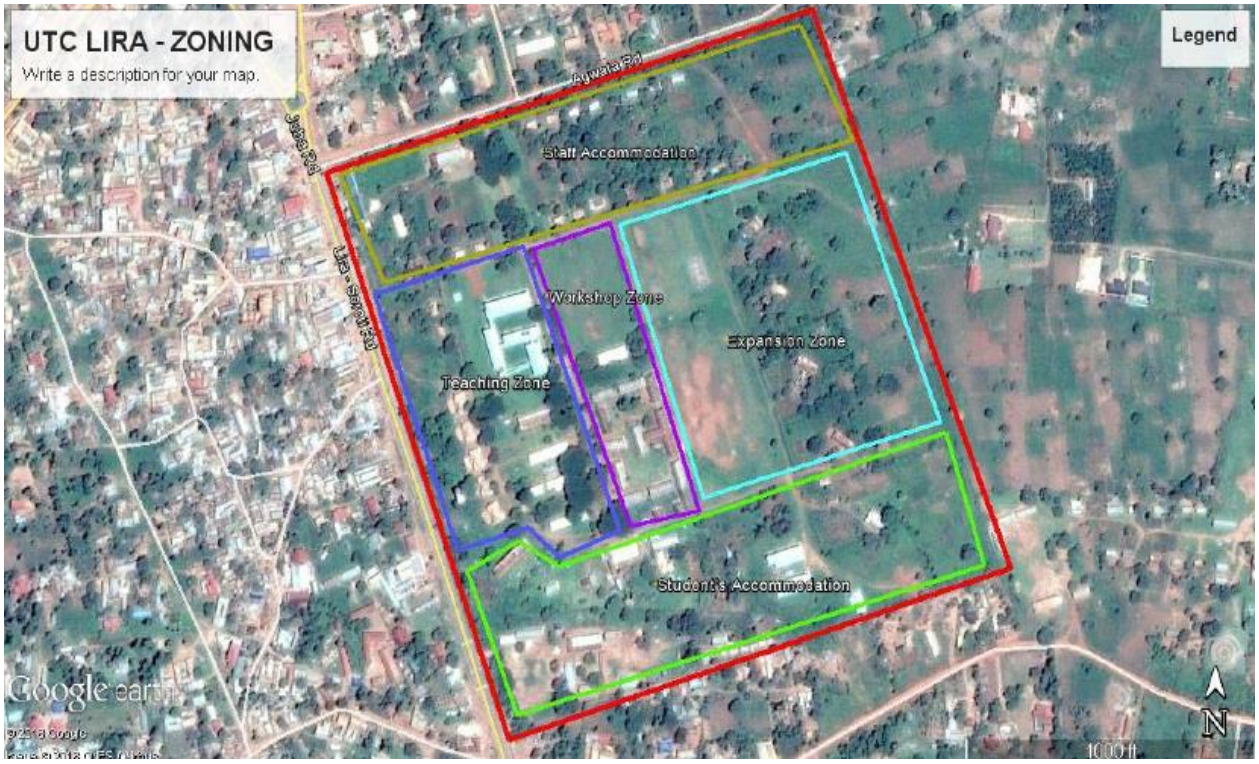


Figure 3: Proposed zoning

From the image provided above, the following zones have been proposed:-

- Student's Accommodation Zone – to the extreme South of the Institute
- Staff Accommodation Zone, to the extreme North;
- Teaching zone; to the West;
- Workshop and Training zone Centrally located; and
- Sport field and Expansion zone to the west;

This therefore guided the allocation of the proposed project to be developed as per the Zones proposed. The image below clearly shows the current land use of the technical college and proposed location of the new proposed project facilities and how the college can be re-organised, as a key instrument required when upgrading it into a centre of excellence.

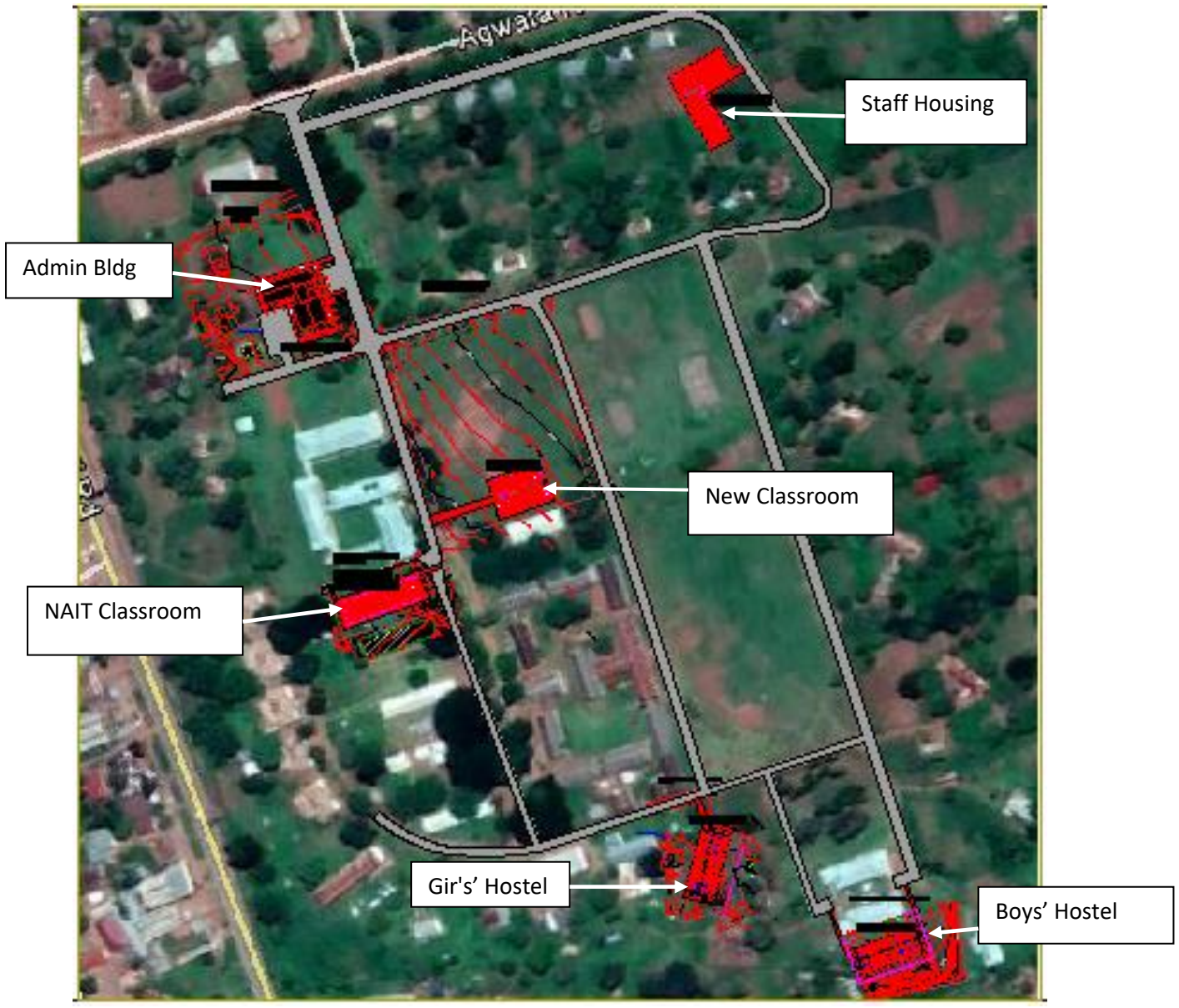


Figure 4: Allocating of the proposed projects.

New developments are aligned with the proposed zoning and land use of the site as recommended in section 4 of the preliminary Engineering design report.t is important to note that the proposed development took environmental conservation measures into consideration. The design ensured that no project will require massive vegetation clearing, pollution, thus observing the requirements of World Bank Safeguard policies. The following projects have been planned for development:-

- Admin Building - Open space along the entrance Road on a relatively flat land and grand position;
- Lightning and earthling protection shall be installed on all the newly buildings and/or buildings to be rehabilitated at the institute;
- Facilities for the physically handicapped such as provision for ramps and toilets shall be installed on the buildings which is in compliance to the Uganda National Policy on Disability and National Physical Accessibility Standards.
- NAIT FClassroom - Open land adjacent to the existing Teaching Complex as recommended by the Twinning Institutions;

- New Classroom - Adjacent to the existing Mechanical Workshop on the south of the existing sport field. The sport field is planned for open yard workshop for heavy duty machinery trainings;
- Girls' Hostel - Open land close to the existing girl's hostel.
- Boys' Hostel - Adjacent to the existing boys' hostel on open and flat land;
- Staff apartment – The specific area for the staff accommodations require approval from the UTC Management since they currently do not have a designated area for the structures

2.4.2 NAIT Training Laboratory and Classroom

This proposed structure will comprises five rooms each 90m² area pursuant as per NAIT's recommendation. The five rooms will include the Administration room, Computer laboratory, Classrooms, soil laboratory and storage area. Access to this facility shall have ramps at all the relevant section such that the handicapped and disabled are able to access different floors of the structure.

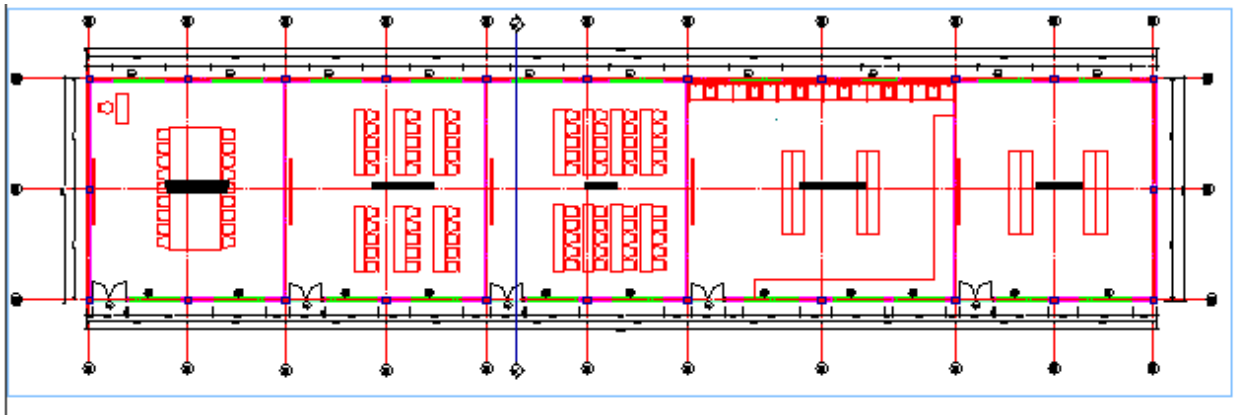


Figure 5: Ground floor of the NAIT training facility

Figure 6: Artistic impression of the NAIT training facility

2.4.3 New Classroom

Intended to alleviate current shortage of classroom for the existing students under the incumbent old program. Six specialized classrooms each accommodating 40 students have been designed as presented below:

Figure 7: Artistic impression of the classroom block

2.4.4 Girls' Hostel

A new hostel block shall be constructed to accommodate the female students. The structure will be a G+2 storied building comprising of 40 rooms each having an occupancy of 4 students thus accommodating a total capacity of 160 girl students. The building comprise of toilets, laundry and an ironing room. The ground floor will partially be occupied by open space for students extra curricula activities for gatherings, discussions and entertainment functions. The illustration provided below is the proposed design for the girl's hostel

Figure 8: Artistic impression of the students'' hostels

2.4.5 Administration Building

An administration block has been proposed to accommodate most of the administration function. The structure will be a G+2 administration building comprising of adequate number of staff offices including departments heads and key management offices, Cafeteria, archives, boardroom and storage spaces as illustrated in the image design below.

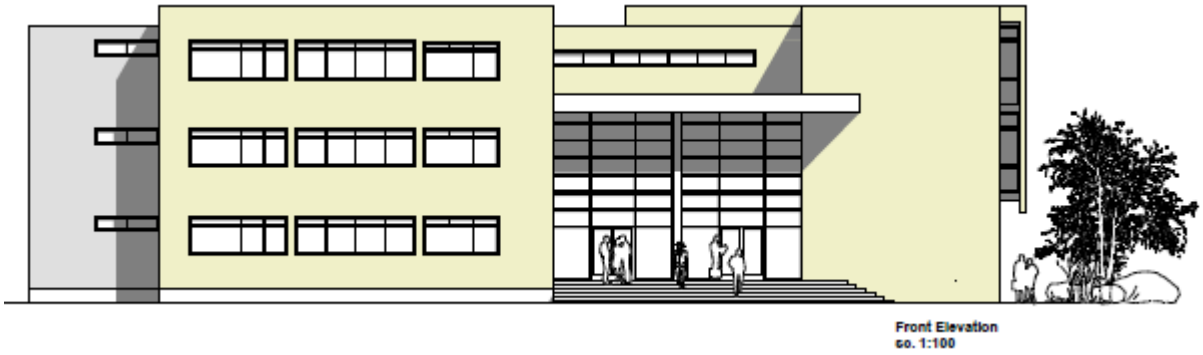


Figure 9: Artistic Impression of the front view

2.4.6 Boys' Hostel

Another new hostel block shall be constructed to accommodate the male students. The structure shall be designed as a G+2 storied building comprising of 40 rooms each having an occupancy of 4 students. Just like the girls hostel, this hostel block will have a capacity of 160 boy students. The building comprise of toilets, laundry and ironing room. The ground floor is partially occupied by open space for students extra curricula activities for gatherings, discussions and entertainment functions as illustrated below:-

2.4.7 Staff Housing/Apartment

Considering the current status of the staff quarters, new proposed staff quarters have been considered so as to accommodate the teachers. The apartment shall be G+3 building with 8 family rooms per floor and a total of 28 rooms. Each room comprises

two bed rooms, living/dining area, kitchen, and bathroom. It can serve for 28 staff with families or up to 50 for bachelors.

2.4.8 Generator Room

A generator house has been considered for construction so as to accommodate the current and the proposed generator to be considered so as to boost the power supply to all the existing and the new facilities to be constructed.

2.5 Project Cost

For all the above projects to be constructed, each facility will require a budget line as provided in the amounts below. It is important to note that this total sum in inclusive of Environmental and Social Management Costs on each item.

Table 6: Proposed Project Cost

Project Priority	Project	Description	Estimated Cost (USD)	Remarks
1	**New NAIT Classroom Block at UTC Lira**	48m x 10m new NAIT block comprising of 5 independent rooms. These are Admin Room, Computer lab, Classroom, Lab and storage room. Built up area - 500 m2	$350,000	The remodeling to be done based on the Twinning Suggestion - Guidance to the Architect-
2	**Upgrade of Utilities**			
2.1	Upgrade the existing transformer by 500 KVA	The existing transformer has 315 KVA capacity and cannot support the prevailing infrastructure development. It shall be upgraded further by 500 KVA to support the workshops and current infrastructure developments.	$100,000	UTC Lira is advised to keep this cost out of this scope and seek for further finance from government as part of basic infrastructure development.
2.2	Backup Generator	Supply and install 200KVA backup generator for the workshops. The actual capacity requirement will be determined after design.	$80,000	Cost shall also include construction of new generator house.
2.3	Internet Access	The national information technology authority of Uganda (NITA-U) has a plan to supply an optical fiber for all Colleges within the coming years. It should at least be of 20mbps and we would recommend that they design it in a more scalable way such that it can be	$100,000	UTC Lira shall apply to NITA-U for upgrading of internet at the College. NAIT recommended Internet Switch (24 mounted port switch) rack mounted in UTC Lira IT server room

		upgraded in a short time possible if needed for future expansion. The incumbent infrastructure to provide internal connection to the fibercable of NITA-U. The cost for internal installation is considered in the respective estimates.		
2.4	Safety and Security	External Solar night lights, CCTV and Signage.	$80,000	Pole mounted solar lighting for the streets, CCTV secured areas and signage at entrance.
3	**Classrooms**	Six new classrooms each 90 m2 for the existing students with gross area of 540m2.	$297,000	To be located near the existing multi-purpose workshop
4	**New Girls' Hostel**	New building for girl's hostel accommodating about 160 girls. An area about 1200 m2.	$720,000	The requirement is suggested by NAIT. Building to be G+1 for about 160 girls.
5	**New Admin Building**	New administration building (G+2) with a total built up area of about 2000 m2.	$1,625,000	It shall be designed to accommodate about 125 staff, archives, meeting room and Canteen
6	**New Boy's Hostel**	New building for student's hostel accommodating about 160 boys. An area about 1200 m2.	$720,000	Building to be G+1 for about 160 student's
7	**Toilets, Bathroom and Laundry**			
7.1	New Toilets, Bathroom and Laundry	Four New external flush toilets including bathroom and Laundry to student's hostel and old classroom area. Each shall have 60m2 area.	$180,000	
8	**Staff Housing**	Two bed room staff apartment (G+4) accommodating a total of 28 family. Total Area = 2212 m3	$1,327,200	Each room has two bed rooms, living room, kitchen and toilets. Can serve for Bachelors and family.

Total Budget (Summary of Projects from Priority No.1 - 8)		$5,579,200
	Contingency (10%)	$557,920
	GRAND TOTAL (USD)	$6,137,120

2.6 Construction Activities

This Construction Strategy aims to assist the initial assessment of construction related issues. The Contractor, who is commissioned to undertake the works, may choose different methods of working and an alternative programme. The following information is therefore approximate and for guidance only.

2.6.1 Time Schedule

The estimated construction period of the project is 1 and 1/2 years including 3.0 month for mobilization.

2.6.2 Land for the proposed developments

The proposed projects to be implemented will be accommodated within the institute land itself since it currently owns over 200 acres and currently, only seats on less than 30 acres equivalent. It therefore has enough land and more to accommodate the proposed new buildings to be constructed. As much as possible no demolition works will be undertaken except for the toilet facilities. The proposed land considered for development is owned by Lira Technical Institute as provided for under appendix 10.

2.6.3 Stockpile areas,

Space for storage and haul roads within the college will be required during the construction stage. Since the proposed construction site as per the zoning are situated within the already built up area. In such places therefore is limited area that can be allocated to storage of construction material and therefore, additional space may be sought from the college administration for storage purposes. Dedicated haulage routes to the construction traffic shall be identified and these shall be equipped with traffic management signposts within the college so as to curb on any possible accidents from occurring.

2.6.4 Project Staff and Working Hours

It is estimated based on going projects within the college, this project will employ over 50 persons both local and international, where necessary. The site working hours will be in line with Uganda's employment legislation.

The employed staff shall be engaged in line with the World Bank Environmental and Social Standards with regards to Labour Conditions for workers, that requires that:-

- Child labour is prohibited. Therefore all workers should be above the age of 18 stipulated in the Children's Act and the Employment Act of Uganda;
- All workers must be provided with a clean, safe and healthy environment. In addition to this, all workers should be provided with adequate PPE;
- All workers should be given contracts clearly showing their remuneration, job description and working hours among others;

- The contractor will have a fully-fledged human resource body that will keep clear copies of all documentation about each worker including National Identification. This will ensure that no person below the edge recommendable age of work shall be engaged during construction of the proposed projects.
- All workers shall be given and trained on all the requirements of the Code of Conduct (attached to this report under appendix 6) so as to maintain a good working relationship.
- The Contractor will be gender sensitive when recruiting workers on the project, and most of the non-strenuous manual jobs should be allocated to women such as secretariat work, supervision depending on their technical background, cleaning among others.
- In order to manage all the challenges the workforce experiences during project implementation, a Grievance Redress Mechanism (GRM) for the work-force shall be developed. This GRM shall comprise of the following:-
    - Project Manager
    - Representation of the different working groups (concrete works, electrical, carpentries, among others);
    - The Contractors EHS team;
    - The Consultant or EHS team for the consultant;
    - The client

    During project implementation, the GRM shall seat to resolve the concerns raised once a quorum of more than 3 representation are available

2.6.5 Auxiliary Facilities

Construction of the proposed projects shall only be possible if a base is opened up within the institute or near by the institute to act as the contractor's office, monitoring base among others. Construction will also require a range of construction material that will range from water to metal bars as well as marram, stone depending on the design procedure of implementation. This therefore implies that some of the construction material shall be imported, whereas the rest shall be sought locally. It is therefore important that adequate mitigation measures are instituted in the auxiliary facilities right from mobilization stage.

2.6.6 External Works

External works simply mean works outside the proposed project buildings but are however required to facilitate functionality of the constructed structures. The external works anticipated under this project will be related to accessibility, drainage and landscaping.

- Access to the Constructed Facilities;

Construction of these facilities will require access to the facilities main entrance from the neighbouring structural facilities. This therefore implies that road opening up, road compaction from the nearest road-linkage will need to be established. These accesses will be used by the construction traffic even during development of the project.

- Site cleaning and Landscaping works

Construction is associated with massive land movements, deposition of construction material among others. After construction of all the proposed building, landscaping will be required such that;-

- External drainage of run-off water is re-directed away from the newly constructed structures among others,
- Spoil material is removed from site and compaction for land leveling achieved; and
- Grassing shall be required in open areas not required.

CHAPTER THREE

3. ESIA METHODOLOGY

3.1 Basis of the Assessment

The national EIA Guidelines (1997) clearly streamlines the EIA process in Uganda and the study was carried out in accordance with these guidelines. The guidelines specify that it is the general policy of the government of Uganda that EIA be conducted for projects that are likely to or will have significant impact on the environment, so that adverse impacts can be foreseen, eliminated or mitigated.

3.2 Project Screening Phase

Review of the Ministry of Education and Sports Environmental and Social Management Framework for Skills Development Project (SDP) November 2014, confirms that an intense technical screening was undertaken by each district and municipality in order to classify they type of assessment required for each project, in reference to the World Bank classification procedures. In April 2015, World Bank developed a Project Appraisal Document (PAD) which clearly stated that from the screening exercise undertaken, all the projects / programs to be implemented under this financing fall under Category B projects.[4]

Category B projects, have the potential to cause environmental impacts on human populations or environmentally important areas, including wetlands, forests, grasslands, and other natural habitats if not properly planned for However, they are less adverse when compared to projects classified under Category A. For Category B projects, their impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects.

3.3 ESIA Methodology

A number of methods have been applied, and these include; literature review (review of design, reports and other relevant publications including legislation), field investigations (receptor identification, baseline water, noise and air quality assessment and analysis, assessment of the physical environment (ie. Hydrology, topography, soils and geology) stakeholder consultations, biodiversity assessment,, cultural heritage assessment, as well as direct observations. Data Collection Methodology

In summary, a number of methods were employed for data collection, relevant for this assessment. These include:-

[4]International Development Association Project Appraisal Document, April 2015, (SDR71.1 to the Republic of Uganda for a Skills Development Project, April 2015.

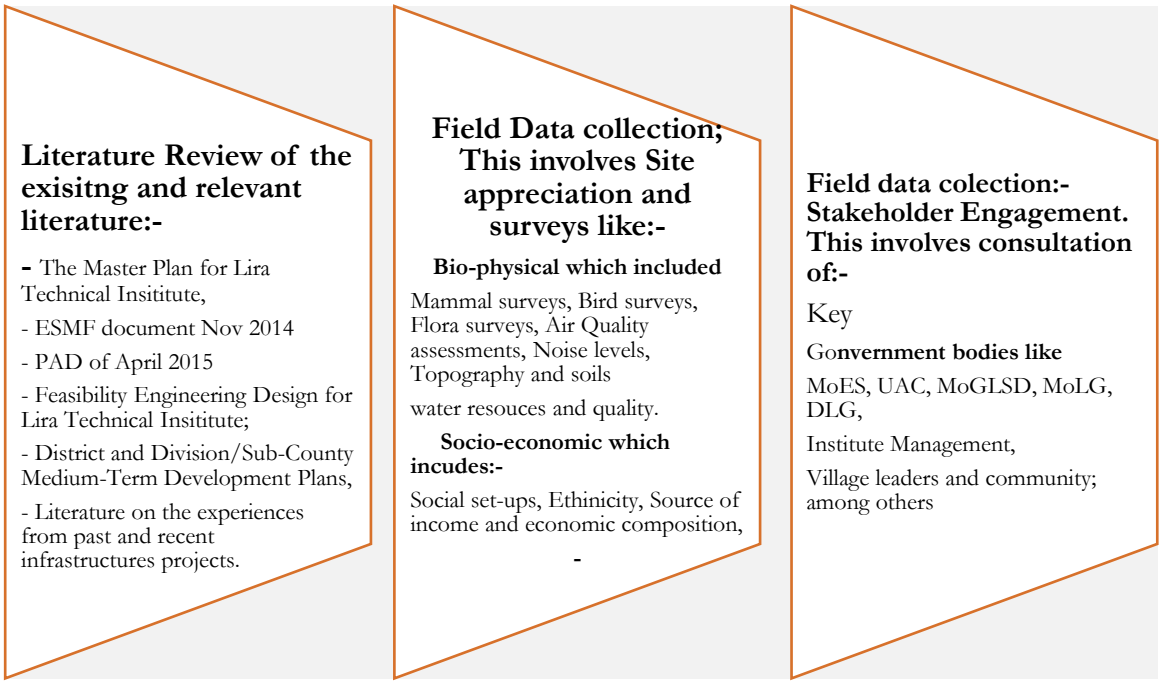


Figure 10: Summaries the methodology employed for data collection before analysis

The above methodologies employed for data collection are described below as:-

3.3.1 Literature Review

A detailed Assessment Study involves establishing and studying the bio-physical and social-economic conditions of both the Direct and Indirect Impact Zone. The Direct Impact Zone (DIZ), would be the environment and all developments within the Lira Institute and the Indirect Impact Zone (IMZ) would be the environment outside college fence. During this review the potentially significant impacts that will need to be addressed were identified and adequate mitigation measures proposed. The following documents were reviewed as presented above:-

- The Master Plan for Lira Technical Institute,
- Feasibility Engineering Design for Lira Technical Institute;
- District and Division/Sub-County Medium-Term Development Plans,
- Literature on the experiences from past and recent infrastructures projects,
- Topographic and cadastral maps,
- Guiding relevant policy, legal and institutional framework of Uganda;
- Guidelines for Environment Impact Assessment in Uganda and other existing legislation; as well as:
- The World Bank Environmental and Social Safeguards Policies;

3.3.2 Stakeholder Consultations

As required by the Guidelines for EIA in Uganda, consultative meetings were held with various stakeholders in order to obtain their comments and views on the proposed project through key informant interviews Focus Group Discussions (FGD). Stakeholders consulted those at national, district and local levels. The list of the stakeholders that were consulted during this assessment, along with a summary of the stakeholders' views and comments on the proposed project are presented in Chapter 6.

3.3.2.1 Objectives of stakeholder consultations

In the context of this project, stakeholder consultations were initiated with the following specific objectives:

- Generating a good understanding of the proposed project and its components, ensuring that the technical college staff, students and the surrounding community identify with the project right from the design stage;
- To assist the Developer and the Consultant understand local expectations throughout the project cycle;
- To understand and characterize the potential environmental, socio-economic and health impacts of the project;
- Develop effective mitigation measures and management plans;
- Optimize local knowledge and determine benefits that can be delivered through the project; and
- Collect relevant information from appropriate lead agencies and Lira District Local Government.

3.3.3 Environmental Baseline Surveys

Environmental baseline surveys were conducted within the college and around it considering the direct and indirect impact zone (radius of 2km from the college boundary). The surveys carried out provided an understanding of the prevailing environmental and socio baseline condition. These baseline conditions will be provided a basis for future monitoring of the environmental and social impacts of the project. Emphasis was laid on the social-economic and cultural environment, flora, fauna (birds and mammals), water quality, soils and hydrology.

3.3.3.1 Assessment of Cultural Heritage

Construction activities are likely to affect existing physical cultural resources on and under the ground surface. The project appraisal document and the environmental management framework, 2014, state that Physical Cultural Resources OP/BP 4.11 will be triggered because project investments involves civil-works and may potentially affect known and unknown physical cultural resources in the area. Among others this therefore required that the physical cultural resource study is undertaken prior to commencement of construction activities, in order to identify if there were any archaeological features on the surface. However, it is important to note the Lira Technical College, has undergone a number of modification and therefore, the likely hood of finding archaeological features on the surface of the ground are highly unlikely. The study intended to identifying the likely PCRs in and around the project area, and anticipating the likely impacts that shall be suffered during project implementation.

The assessment began with a baseline study to identify all archaeological, historical sites and other monuments in and around the project area. Desktop search for declared sites was also undertaken and consultations were held with the Department of Antiquities and Museums in Uganda to identify any cultural heritage sites within the project area.

3.3.3.2 Mammal Survey

A baseline mammal survey was undertaken with the main objective of assessing the impacts of the proposed project on the mammals that inhabit the potentially affected areas. The methodologies employed while assessing the mammals at the proposed section of the project include;

- *Visual Encounter Surveys (VESs);* These involved walking through sampling areas within the direct impact zone (2km radius) for an hour at every survey location systematically searching for surface-active species especially large and medium mammals. This method involved looking out for indirect signs of mammalian presence such as scat, foot prints and projects or roosts in case of bats. Visual encounter survey method is commonly used to determine the species richness of an area, to compile a species list and to estimate relative abundances of species within an assemblage; and
- Consultation of the technical collage staffing and neighbouring communities about the presence of medium sized and large mammals in their respective areas. Consultation of the district leadership with common knowledge about the project area was also undertaken to determine the mammalian existence in this area.

3.3.3.3 Birds' Survey

Sections of the project site were assessed for presence of sensitive habitats for birds, The methods used for bird surveys at the proposed site include;

Timed Species Counts (TSC); This method involved developing a species list in which all species positively identified were listed in the order seen or heard within a period of an hour. Survey points were selected randomly along the site depending on the conditions and the developments there-in. The observer walked around the college and selected survey point at a distance of 10m and a radius of 200meters from the college boundary. Other survey points were selected based on the vegetation among others..

Point counts; This method involved looking for vantage points without any obstructions, and recording all the birds heard and seen with the help of binoculars. Field identifications were done with the help of a field guide to the birds of East Africa by Stevenson and Fanshawe (2002).

The species recorded between 0-10,10-20,20-30, 30-40, 40-50 and 50-60 minutes were given scores of 6, 5, 4, 3, 2 and 1 respectively (Pomeroy 1992) and was taken to Makerere University Herbarium (MHU) for identification. While undertaking alternative analysis presented in chapter 7, point counts were under taken around the survey points. National Biodiversity Data Bank numbering for each species recorded and codes for habitats in the project area were used. .

3.3.4 Air Quality Surveys

Measurement of dust was undertaken using a Casella Micro Dust portable instrument and the gases were measured with MX60 multi-gas meter. These included nitrogen oxides, sulphur oxided, LEL, and particulate matter.

- Randomly selected points within and around the site were selected for the air quality baseline survey;

1	Girls' Dormitories
2	Boys' dormitories
3	Staff quarters
4	Near entrance to the college
5	Near forest area/trees
6	Near workshop

These points were selected so as to give an indicative baseline of air quality of the vast project area; and

- Review of previous environmental baseline information was also undertaken,

3.3.5 Noise Measurement

Baseline noise was undertaken at selected representative receptors at the proposed project site and surrounding environment. These measurements were undertaken so as to enable a quantitative assessment of the prevailing noise levels within the proposed project area. Noise assessment was done using equipment like the CASELLA CEL-621C2/K1 Integrating 1/3 Octave Band Sound Level Meter (Class 2) equipment. The noise logger used was recorded for a sample period of 5 minutes at each potential receptor. Weather affected noise data was excluded from the results. During this survey, the sample considered for baseline assessment included the following: -

1	Location 1 (towards the entrance)
2	Location 2 (Near classrooms)
3	Location 3 (Near dormitories)
4	Location 4 (Near staff accommodation units)

Methodology employed for analysis of data collected.

3.3.6 Impact Assessment Methodology

Impact identification and assessment starts with scoping and continues through the ESIA Process. The impact assessment process was as follows: **Impact prediction:** to determine what could potentially happen to resources or receptors as a consequence of the project and its associated activities.

- **Impact evaluation:** to evaluate the significance of the predicted impacts by considering their magnitude and likelihood of occurrence, and the sensitivity, value and/or importance of the affected resource or receptor.
- **Mitigation and enhancement:** to identify appropriate and justified measures to mitigate negative impacts and enhance positive impacts.
- **Residual impact evaluation:** to evaluate the significance of impacts assuming effective implementation of mitigation and enhancement measures.

3.3.6.1 Evaluation of Impacts

This section assesses the level of potential negative impacts based on the following criteria:

a) **Extent***:* Evaluates the area of occurrence/influence by the impact on the subject environment; whether the impact will occur.

Table 7: Showing impact evaluation on Extent

Evaluate	Immediate	Local	Wide	National or global
Area of occurrence	within 200m radius	within 1-5 km radius	District, affecting ecosystem or catchment	with trans boundary impacts

b) **Persistence**: Evaluates the duration of impact on the subject environment, whether the impact will be

Table 8: Impact evaluation considering persistence in the environment

Evaluate	Temporary	Short Term	Medium Term	Long Term	Permanent
Duration of impact	< 1 year	1 - 3 years	3-10 years	10years <	Eternal change

NB. *Permanent* (Impacts that occur during the development of the project and cause a permanent change in the affected receptor or resource that endures substantially beyond the project lifetime).

c) **Magnitude**: The quantifiable effects of impacts, measured where possible, against the appropriate standard for each respective environmental component. This includes existing standards, guidelines or expert judgment.

Table 9: Impact evaluation considering its magnitude

Evaluate	Quantifiable Effects Of Impacts
Low	Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
Medium	The affected environment is altered, but natural, cultural and social functions and processes continue, albeit in a modified way
High	The natural, cultural and social functions or processes are altered to the extent that it will temporarily or permanently cease

d) **Probability**: Evaluates the likelihood of occurrence of predicted impact on the subject environment thus as shown in the table below

Table 10: Impact evaluation considering likely probability of it happening

Evaluate	Low	Medium	High	Definite
Occurrence	<25%	25 -75%	>75%	100%

e) **Status of impact**: The status of an impact is used to describe whether the impact will have a negative, positive or zero effect on the surrounding environment. An impact may therefore be *negative, positive* (or referred to as a benefit) or *neutral*. It also states if the impact is direct or indirect.

f) **Overall Impact Significance:** using a combination of the above criteria, the overall importance of the impact is assigned a rating of Major (Severe),

Moderate, Minor, and Negligible as illustrated in Table 4-1 below. Determining significance of environmental impacts included determining the:

- Likelihood of the impact; and
- Severity of the Impact.

Table 11: Impact significance

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

3.3.7 Mitigation/Enhancements

Where potential negative impacts were predicted, practical and cost-effective mitigation or compensation options which minimise such effects to acceptable levels were identified. Similarly, where opportunities for enhancement exist, these were identified and recommended. Mitigation where considered from the outset of the assessment process, and required continued close communication with the design team. **Environmental Management Plan (EMP)**

Mitigation and management measures are clearly provided in the Environmental and Social Management Plan (ESMP) which identify specific measures for addressing impacts including who is to be involved and how these should be implemented and monitored as well as associated costs.

CHAPTER FOUR

4. ENVIRONMENTAL AND SOCIAL BASELINE

4.1 Introduction

This chapter describes in detail the ongoing prevailing conditions of the Institute and Lira district that will be affected one-way or another by the anticipated developments. This chapter reveals which areas of the institute are sensitive and need critical attention during construction while paying attention to the overall conditions within Lira district that could also affect the project is no harmonization is undertaken. The baseline conditions have been presented in two parts i.e:-

- The Biological and Physical Environment; and
- The Social and Economic Environment of the institute.

The baseline conditions presented in this report are those for:-

- Lira District where the project is located; and
- UTC- Lira where the proposed development projects are to be implemented.

4.2 UTC- Lira

4.2.1 Introduction

The college was founded in 1948 to offer technical training to World War II veterans. It therefore started admitting primary school leavers as a Technical school.

In 1972 it upgraded to a technical institute admitting secondary school leavers 'O' – Levels to pursue craft certificate courses. In October 1984 it was upgraded to a technical college admitting secondary school leavers who have completed advanced level of education.

The mission of the institute is to enable a trainee acquire knowledge and skills in science and technology aimed at producing a competent graduate who contributes towards individual and national development in a changing world of work.

The College currently runs Diploma and Certificate Level Courses in the following fields:

- Automotive
- Building, construction and the built environment
- Engineering and manufacturing technologies
- Information and communication technology

4.2.2 Biological and Physical Environment

The overall mitigation goal identified in this baseline study is to avoid or minimize construction-related project impacts on biological resources, using generally accepted and practicable mitigation measures through the deployment of management plans and the designation of Environmentally Sensitive Areas.

4.2.2.1Flora (Vegetation Composition)

The most abundant plant species are cassava (*Manihotesculenta*), bananas (*Musa sp*), maize (*Zea mays*) and rice (*Oryza sativa*) among others.

Table 12: Some of the identified species

NAME	AUTHORITY	IUCN STATUS
Leonotisnepetifolia	(L). R. Br.	NE
Murdanna simplex	(Vahl) Brenan	NE
Maeruasp		
Aeschynomeneindica	L.	LC
Pennisetumpurpureum	Schumach	NE
Brachiariadecumbens	Stapf	NE
Aloe sp		
Musa sp		
Ozoroa insignis	(Baker f.) J.B. Gillett.	NE
Vernoniasmithiana	Less.	NE
Combretumcollinum	Fresen	
Tylosemafassoglensis	(Schweinf.) Torre &Hillc.	NE
Indigoferahirsuta	L.	NE
Digitariavelutina	(Forssk.) P. Beauv.	NE
Cynodondactylon	(L.) Pers.	NE
Zea mays		NE
Eleusineindica	(L.) Gaertn.	LC
Markhamialutea	(Benth.)K. Schum.	NE
Manihotesculenta	Crantz	NE

LC	Low concern	Taxon has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or
NE	Not Evaluated	Taxon has not yet been evaluated against the criteria.
DD	Data Deficient	Taxon has inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status

4.2.2.2 Fauna Survey

The potential to harm flora and fauna is identified during the detailed study and remedial action recommended for the activities to be undertaken. The overall objective for this exercise was therefore "To establish existing fauna within the institute that will be at risk during project implementation".

The EIA therefore will serve to protect biodiversity within the project site, encourage wise construction-decision making without compromising faunal assemblages. Prefeasibility and feasibility studies have tested the potential impacts and associated biological and conservation effects of the institute.

4.2.2.3 Birds

Birds are very important in conservation and environmental impact assessments because they are good indicators of general biodiversity. Areas rich in birds have been found to also be rich in other biodiversity. Birds are very good biodiversity indicators because they are taxonomically well known, they are large, conspicuous and therefore relatively easy to survey, they are found virtually in every habitat although some species are habitat specific and thus sensitive to environmental changes. Birds were studied using spot counts and identified based on the "Field Guide to the Birds of East Africa" (Stevenson & Fanshawe 2002). The spot count was employed because it is suited for: extensive open

4.2.2.4 Air and Noise assessment

Air Quality Assessment

Baseline Ambient Air Quality Assessment within the project area was carried out at selected areas in reference to potential sources and receptors.

An MX6 iBrid™ Multi-gas Monitor was used to take measurements and is designed to detect from one to six gases including oxygen, combustible gases and up to four toxic gases: (Any combination including CO, SO2, NO, CO2, H2S, PID, O2, and NO2). The results of the assessment were benchmarked against applicable national standards to determine compliance with the audit criteria (Draft National Air Quality Standards).

Table 13: Air quality results

ID	Location	5 min TSP mean ($\mu g/m^3$)	LEL	NOx	SOx
1	Girls' Dormitories	62	5	1	1
2	Boys' dormitories	63	5	1	1
3	Staff quarters	65	4	1	0
4	Near entrance	88	8	3	1
5	Near administration block	84	7	2	0
6	Near workshop	97	8	3	2

From the assessment undertaken, Workshops and towards the entrance to the college there were high amounts of total suspended particles as compared to the accommodation units that had very little total suspended particles present in the atmosphere. Workshop areas were recorded with high amounts of particulate matter in the atmosphere. In reference to the Draft Air Quality Standard regulation, as shown below:

Table 14: Regulatory air quality standards for selected pollutants

Pollutant	Averaging time for ambient	Standard for ambient air

	air	
Carbon dioxide (CO_2)	8 hr	9.0 ppm
Carbon monoxide (CO)	8 hr	9.0 ppm
Hydrocarbons	24 hr	5 mgm^{-3}
Nitrogen oxides (NO_x)	24 hr	0.10 ppm
	1 year arithmetic mean	
Smoke	Not to exceed 5 minutes in any one hour	Ringlemann scale No.2 or 40% observed at 6m or more
Soot	24 hr	500 $\mu g/Nm^{-3}$
Sulphur dioxide (SO_2)	24 hr	0.15 ppm
Sulphur trioxide (SO_3)	24 hr	200 $\mu g/Nm^{-3}$

Note: ppm = parts per million; "N" in $\mu g/Nm^{-3}$ connotes normal atmospheric conditions of pressure and temperature (25°C and 1 atmosphere).

4.2.3 Socio – Economic Environment

4.2.3.1Location

The college is located in lira municipality on Obote Avenue, Soroti road in northern Uganda about 300kms from Kampala city centre.

Figure 11: Map Showing Lira Technical Institute

Figure 12: Overview of the drive way into the institute

4.2.3.2 Building structures

Lira technical institute has some of the oldest buildings, most of which were roofed using asbestos sheets in the 1950s, including the main administration block. In addition, with the aid of Islamic Development Bank, a number of new structures have been put up and these have boosted the physical outlook of the institute. Some of these structures include; Classrooms, laboratories, Boys' dormitories, a health facility, sanitary facilities, among others.

Figure 13: Mechanic workshop

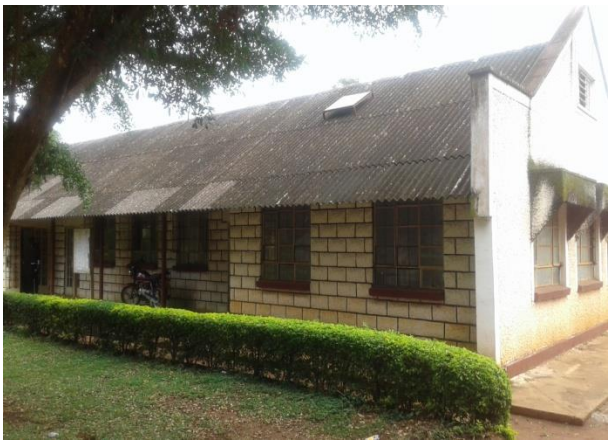


Figure 14: Administration block

Figure 15: Laboratory and classroom blocks

Figure 16: Computer lab donated by Barclays' bank

4.2.3.3 Accommodation

Commensurate to the number of male students vis-à-vis female students admitted to the institute, the number of boys' dormitories is more. In addition to the old blocks, the institute has got newly constructed dormitory units through the IDB fund. These are well equipped with satisfactory sanitary facilities. The girls on the other hand have only 2 accommodation blocks. The sanitation of these is still lacking, the incinerator is present but needs maintenance.

Figure 17:Old Boys' dormitory building

Figure 18: New Boys' dormitory building

Figure 19: Girls' dormitory unit

Figure 20:Incinerator at the girls' dormitory

Figure 21: Sanitary facilities at the girls' dormitory

Staff quarters were constructed in around 1950s. Staff accommodation units are both at the west and east ends of the buildings. Some buildings never been repaired since 1920s. As such, most of them are in a dilapidated state with leaking roofs and faulty water systems.

Staff quarters still remain in adequate due to increased number of teaching and non-teaching staff currently at the institute.

Figure 22: Staff accommodation units

4.2.3.4 Real life projects

Being a technical institute, all the course offered are hands-on. In addition to the practice acquired by students during practical sessions in workshops, these skills are tested by giving students "Real – life projects". This gives them opportunity to put the skills acquired in the workshop into structures, equipment, among others that can actually be used in real life.

In this regard, students of Building construction at the institute, with the help of their instructors put up commercial structures that will be rented out to members of the community hence a revenue source to the institute.

Figure 23: Nearly completed Commercial structures

Figure 24: Foundation laying for another structure

4.2.3.5 Waste Management

By nature of the vast activities taking place, the institute of this magnitude generates various types of wastes, both biodegradable and non-biodegradable. These wastes if not properly planned for and managed, can cause pollution and have negative impacts to the environment, including aesthetics, smell nuisance, breeding place for disease transmitting vectors, among others.

Waste management in general is still a challenge in Lira Technical institutes. During field investigations, only a few waste collection bins were seen in the boys' dormitory. These lacked lids and were not in sanitary conditions. Otherwise in most cases, waste was simply dumped openly. Where storage was being done in collection bins, sorting/segregation was not being practised, as shown below;

Figure 25: Waste collection area; evidence of no waste segregation

Figure 26: Poor storage of waste

Figure 27: Abandoned Solid waste bank

Figure 28: Construction material stockpiles

4.2.3.6 Sanitary facilities

The majority of buildings were built in 1950s. These were provided with pit latrines which are now in poor condition located external and out of the buildings. This includes literally all the non-teaching staff houses, and few blocks serving for boys and girls hostel.

However, the situation has been saved by the IDB project which has seen construction of a number of water borne toilets especially the girls, boys and classroom blocks.

Figure 29: New sanitary facilities

Figure 30: Facilities used during the IDB project

Figure 31: Facilities serving the church

4.2.3.7 Health facility

Through the IDB project, the institute has constructed. This health facility is set to treat all minor illnesses of the students and staff as well as benefit the neighboring community.

Figure 32: Health facility constructed under the IDB project

4.2.3.8 Student Parliaments

Students in Lira Technical; Institute organized themselves in associations that bring them together in terms of the regions they hail from. It is through these associations that their voices are heard, and their various cultures are preserved.

In bid to promote and support these associations, the administration designated various areas where the students out up simple structure. It is in these areas that they convene to discuss issues affecting them and forging ways to solve the same with the help of the administration.

Shown in the figures below are some of the parliaments and the efforts by the students to conserve the environment.

Figure 33: Students' parliament

Figure 34: Trees planted by students in Teso association

4.2.3.9 Recreation facilities

The institute has a football field to the east, as well as a basketball court. These were furnished with mobile toilets (those previously used by refuges). However, most of these toilets are non-functional.

Figure 35: Basketball pitch

Figure 36:Mobile toilets left behind by refugees

Figure 37: Football pitch

4.2.3.10 Energy

The Institute is connected to HEP. This is used in the accommodation units, classrooms and workshops. For cooking, the institute uses firewood. The kitchen is installed with boilers, all of which are no longer functional. However, there is need to supplement the current power source by boosting solar energy use.

Figure 38: Firewood use in the kitchen

Figure 39: Boilers in the kitchen

4.2.3.11 Religious amenities

Within the institute just next to the gate is St. Joseph the Worker UTC chapel Lira; a church that was an initiative of the staff members of the college but later, the construction was taken over and completed by Lira Catholic Diocese.

Figure 40: St. Joseph the Worker UTC chapel Lira

Figure 41: Sanitary facilities serving the church

4.2.3.12 Neighboring school

To the south of the institute is a primary school, separated from the college by a chain link fence. This shares some services e.g water, classrooms especially during examination period, among others, with the institute. Pupils form the school can access the college through a small access gate.

It is therefore very important that project implementation activities take this into consideration. Social ills of construction labour e.g crime, rape, defilement, child labour among others could heavily impact on this school's pupils if proper planning is not done at initial stages.

Figure 42: The neighbouring primary school in the background

4.3 Lira District

Lira District is home to Uganda Technical College Lira (UTC Lira) a 67-year old government-owned technical institution with about 750 students.

4.3.1 Bio-Physical baseline

4.3.1.1 Historical Background

Lira District which was formed in 1974 from the then Lango District is occupied by the Lango ethnic group with its sister districts Apac , Oyam, Otuke, Alebtong, Amolatar, Kole and Dokolo also mainly occupied by the Lango ethnic group.

The Langi originated from Abyssinia in Ethiopia. They are considered to be part of the Nilo-Hamites (also known as semi-Hamitic) group which includes the Teso, Kumam, Jie and Karamojong tribes. The Lango, in contrast of their fellows, have adopted the simpler Nilotic tongue. It is believed that their move from further North into the present habitat took place between the years 1800-1890 approximately.

Apart from times of wars, when some sort of cohesion was achieved under one or two war leaders, the Langi before the advent of British Administration in 1889, were divided into many small groups or clans each with its own leader, i.e. chieftainship. British Administration of the District dates back to 1900. It was effected in the main by peaceful generation. Administration in the early days was in the hands of Buganda agents[5].

The present district headquarters at Lira were established in 1914.

[5]District Development Plan 2010/2011– 2014/2015

4.3.1.2Location and size

Lira District is located in Lango sub-region in Northern Uganda and is bordered by the districts of Pader and Otuke in the North and North East, Alebtong in the East, Dokolo in the South and Apac in the West. Physically, the district lies between:

Latitudes 1o 21'N, 2° 42"N

Longitudes 32° 51"E, 34° 15"E

The district covers approximately a total area 1326 km2 of which 1286.22 km2 is land area.

4.3.1.3Geology and Topography

The greatest proportion of Lira District comprises undifferentiated gneisses including elements of partly granitized and metamorphosed formations. The main rock types are cleaved grey sandstones and grey phyllites, while quartzite and feldspathic sandstones are found in the lower part of the succession. North-east of Lira Municipality (around Ngetta area) and towards Ogur, are small sections of mobilized and intrusive granites, and are associated with granulite facies rocks.

The relief of Lira District ranges between 900-1500 metres above sea level, although much of the District lies at about 1020 m above sea level. The largest proportion of the District comprises of remnants of lowland surface.

The geology and topography of the district will influence earthworks associated with material (crushed stone, gravel) associated with building construction at UTC Lira.

4.3.1.4Ecological Resources

Lira district has nine main vegetation types including moist thickets, woodland, moist acacia savanna, *Moist Combretum Savanna*, *Butyrospermum Savanna*, *Palm Savanna, Dry Combretum Savanna,* Communities on sites with impeded drainage and swamp. Observations indicate that due to increased urbanization and population growth particularly from the internally displaced people, most of the natural vegetation has been cleared for commercial, residential and agricultural activities. The predominant species include *Combretum savanna* associated with *Hyparrhenia spp*. This type of vegetation covers about half of the district. The other species include *Butyrospermum savanna* associated with *Hyparrhenia spp* mainly in the north of the district, and interspersed with *Combretum collinum (Luo-mbugu)* and *piliostigma thonnigii* (Luo-ogali) in the east of the district. There is also dry Acacia savanna associated with *Hyparrhenia spp* in the extreme southwest of the district.

It is anticipated that if there is adequate waste and material stockpile management (for building construction, waste should not be dumped in roadside swamps and earth materials should be acquired from authorized sites) none of the project components will have major impact on ecological resources.

4.3.1.5Seismic Zoning

The proposed site lies within zone 3 of the seismic zoning of Uganda, implying that there's a low risk of earthquake occurrence at the site. (Seismic Code of Practice for Structural designs; UNBS, 1st Edition: June 2013.

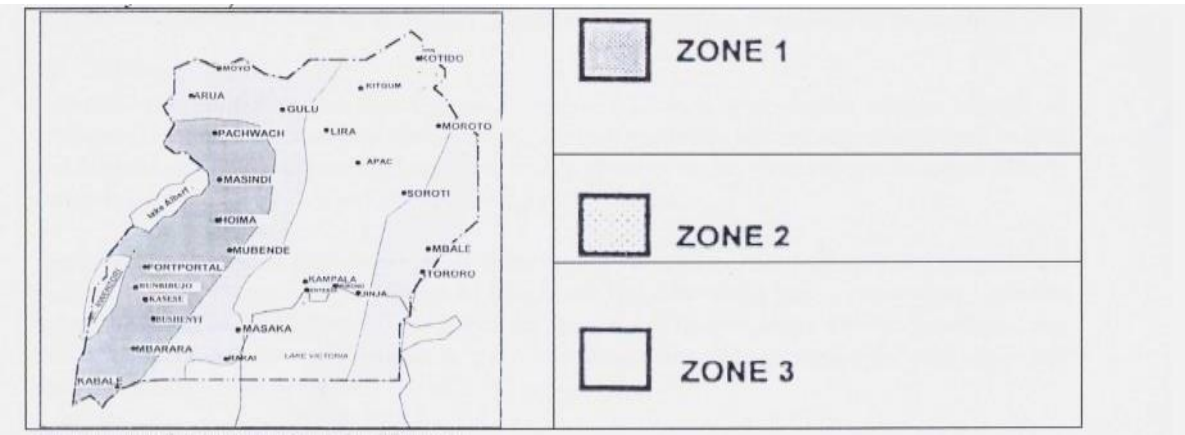


Figure 43: Project located in zone 3, low prone to earthquakes.

4.3.1.6Climate

Lira District has a continental climate modified by large swamps in its southern part. The rainfall in the district is bimodal with one peak during April-May and the other in August-October. The average annual rainfall in the district varies between 1200-1600 mm decreasing northwards. The rainfall is mainly convectional and normally falling in afternoons and evenings. The average minimum and maximum temperatures are 22.5^{0}C and 25.5^{0}C, respectively.

Absolute maximum temperature rarely rises beyond 36^{0}C and absolute minimum rarely falls below 20^{0}C. The Equatorial Trough and south easterly winds which bring rainfall; passes over Lira District. Wind speed is low (1- 4m/sec) during rainy season and moderate (4-8 m/sec) during the dry season.

4.3.2 Socio-Economic Baseline

4.3.2.1Administrative Structures

Lira Municipal Council is a lower local Government under Lira District Local Government. A Mayor heads the political wing and the Town Clerk heads the technical wing. The Municipality comprises four Division Councils namely: - Adyel, Lira Central, Ojwina and Railways Divisions as lower local governments under the Municipal Council. Each Division is headed by a Chairman who heads the political wing and an Assistant Town Clerk who heads the technical wing. Under these Divisions are lower Councils numbering eighteen parishes or wards (LC II) and fifty-nine villages.

4.3.2.2 Economic Activities

- *Mining:* stone quarrying and sand mining.
- *Agriculture:* Major Crops: sweet potatoes, Sorghum, ground nuts, finger millet, pigeon peas, cowpeas, rice, bananas, tomatoes, beans, maize, sunflower, coffee, vanilla, simsim, sugarcane, tea, cotton, oil seeds and fruits such as pineapples, oranges, passion fruits, sugarcane. Livestock; mainly cattle, goats, sheep, pigs and poultry chicken, ducks, turkeys, guinea fowls.

Agro processing: Oil milling is a major

activity because of the high production of sunflower, simsim and the natural endowment with the shea butter trees, others include grain mills for cassava, rice, millet, sorghum and maize, livestock i.e. hides, skins and meat processing, products, fruit processing, paste products, sesame and G/nuts. *Apiary:* for honey and wax. Bee product processing.

- *Tourism:* Historical and natural scenic areas though undeveloped such as the Lango cultural sites and rocks in Akia, Ngetta and Aler. Lango cultural practices, Music Dance and Drama, Art and crafts, among others. Some antiquities have run into extinction or degraded due to laxity and lack of documentation and protection that has been a challenge of the past generation.

Industry: Wood works, metal fabrications brickworks and pottery tailoring garments cutting, crafts and works.

Investment Incentive: More than 200 acres of land identified in Ngetta and Aler as a new Industrial parks.

Investment opportunities: Agro-processing and value addition: abattoirs, Leather tanning: art &craft, Natural scenic sites development, Hospitality services: Education, health and financial services.

4.3.2.3 Population and Demographics

In 1991, the Uganda national population census estimated the population in the district at about 191,500. Eleven years later, the 2002 national population census, put the district population at about 290,600, with an annual population growth rate of 3.4%. In 2012, the population of Lira District was estimated at about 403,100.

4.3.2.4 Gender and Role in community

Lira as a district has suffered from Gender Inequality, where men feel they are more superior to the women. Due to this, over the past period Lira District-Gender Programmes has engaged in many activities to ensure that both men and women participate equally at every level of social and economic decision-making and development processes. These included:-

- Year Activity Beneficiaries
- 2008 Gender analysis training workshops ACDOs
- 2009 Gender and policy analysis trainings LC V Councilors
- 2010 Sensitization workshops Community
- 2010 Gender mainstreaming PDCS and SPC

To date Women involvement in all working committees District Committees
Despite the above efforts, inequalities still remained a persistent feature in the areas of participation in decision making, development activities, judicial cases, sexual harassment etc. Therefore measures to address this impact should be constituted within this project.
In a research undertaken in Lira to identify the gender roles, it was discovered that:-

- There roles designated for men and women and therefore certain jobs were kept for women. Even when men undertake certain roles, they do as little as possible.
- It was pointed out that men work only 2 - 3 hours a day.

- Women do all the reproductive work as well as most of the productive work.
- Women are continuously taking up roles that were traditionally considered men's. This was majorly attributed to the fact that some men are not taking sufficient responsibility in the homes and the well-being of their families.

"If a man does not care about building or repairing the family house, the woman has to do so because she cannot continue living under a leaking house, which is unsafe for the family." (Woman participant in Lira District)

The roles specified for men were identified as: - digging graves, fathering a child, digging pit latrines, paying bride prices, marrying women and `disciplining' women.
It is therefore important during recruitment of workers, equal opportunity is provided for all as a way of promoting gender equity within the society coupled with adequate sensitization and awareness creation.

If not adequately planned for, the proposed project can increase of gender based violence by treating women as the minority, among others.

4.3.2.5 Land use and tenure

The district covers a total area 1326 km2 of which 1286.22 km2 (or 97%) is land. Land is prevalent under cultivation, settlement or covered by natural resources (forests and watercourses). Wetlands in Lira District cover about 419 km2. The wetlands in the district are categorized into three major systems namely Olweny Wetland System, Okole Wetlands System, and Moroto Wetland System. The Olweny wetland system drain into Lake Kwania in Dokolo District, the Moroto system drains into Aswa river system, while the Okole system drains into the Albert Nile. The increasing population in the District continues to exert substantial pressure on the wetland and its resources basically due to increasing need for land for agriculture, settlement, industrial development, urban amongst others. Implementation of the proposed project will be on college land and therefore no involuntary resettlement is anticipated.

4.3.2.6 Health and sanitation

Health directly impacts on labour productivity of a population. Lira District has 28 health facilities of which 21 are government-owned while seven are Private-Not-For-Profit (PNFP) health units. Prevalently, healthcare facilities lack medical personnel. This means long waiting times before patients are attended to. Further, 39% of the health centres experienced stock-outs of first-line drugs for Malaria, which is also the highest cause of morbidity in the district.

In addition, up to 69% of the health centres experienced stock-outs of HIV testing kits, all of which are essential in the fight against HIV/AIDS. The district's safe water coverage is 68% and the main water supply sources in the district were protected springs (971), followed by boreholes (610) and shallow wells (605). The functionality rate of all the water sources stood at 77.4% which was below the national standard of 80%.

Health and sanitation conditions will be most relevant for project implementation where accident risk either at construction site, material sources sites or during material

transport necessitate easy and quick access to healthcare facilities. Long waiting times at healthcare facilities mean that accident victims during project implementation would likely not be immediately attended to. Contractors should therefore have adequate First-Aid services and kits. Access to potable water by construction workers for drinking and sanitation is essential (and should be a contractual obligation) but is likely to be a challenge for contractors due to prevalent low access to safe water in Lira District.

4.3.2.7 Information infrastructure

Radio

The district is well served by the national medium – Radio Uganda. Of late many people are tuning to FM radio stations.

There are 6 FM radio stations in the district namely Radio Rhino, Radio Lira, Radio North, Radio Unity, Voice of Lango and Radio Waa. They have greatly improved listening culture, mass mobilisation and entertainment.

Government has also installed a radio transmitter station at Odokomit for the purpose of relaying programmes on sexually transmitted infections. The transmission has started.

UNICEF supplied radio receivers to community mobilisers in seven sub-counties to boost mobilisation on the rights of women and children. However, most of the receivers have broken down[6].

4.3.2.8 Education and literacy

Education is important for socio-economic transformation because it provides the means through which skills are imparted and positive attitudes and practices fostered. Primary education is part of what is referred to as basic education and is often used as an indicator of literacy. Lira District performance on key primary education indicators can be described as abysmal. Enrolment remained at about 50%, and there is currently a teacher gap of 172 and a deficit of 503 classrooms at current enrolment level. Primary education is faced with several challenges, including poor remuneration of teachers.

[6]District Development Plan 2010/2011– 2014/2015

CHAPTER FIVE

5. POLICY, LEGAL AND INSTTITUTIONAL FRAMEWORK

5.1 Introduction

This chapter discusses policy, legal and institutional framework within which the ESIA was conducted. These are discussed along with World Bank Safeguard Policies (2002) and Performance Standards as per the ESMF-2016 of the World Bank, as well as the relevant international agreements and conventions to which, Uganda is a party. Key legislations governing the conduct of EIA in Uganda are the National Environmental Act Cap. 153 and the Environmental Impact Assessment Regulations (1998). The National Environmental Act established the National Environment Management Authority (NEMA), and entrusts it with responsibility to ensure compliance with the EIA process in planning and execution of these projects. Relevant policies have also been analysed as summarized below:

5.2 Policy Framework

The key policies applicable to the environmental and social management associated with the proposed project include, but are not limited to, the following;

5.2.1 Uganda's Vision 2040

This Vision Framework provides plans and strategies to operationalize the Ugandan vision which is "A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years". It aims at transforming Uganda from a predominantly peasant and low income country to a competitive upper middle income country with per capita income of about USD9, 500. Over this period, average real GDP growth rate will be over 8.2 per cent per annum translating into total GDP of about US $580.5bn with a projected population of 61.3 million.

This will match the level of development observed in upper middle income (UMI) countries such as Malaysia, Mauritius, Hungary and Chile. To attain this level of per capita income the country will exploit its enormous and novelty opportunities including; oil and gas, tourism, minerals, ICT business, abundant youthful labour force, strategic geographical location, fresh water resources, industries and agriculture. These opportunities will be harnessed through strengthening fundamentals including; physical infrastructure (transport, ICT and energy), Science, Technology, Engineering and Innovation (STEI); and globally competitive human resource.

It is important to note that development of this project is scaled right from the bigger goal of Uganda's vision of 2040. According to this vision, one of the strategic bottlenecks that has constrained Uganda's development is the continued accumulation of underdeveloped human resources. In abid to address this bottlenecks, Uganda Vision 2040 identified " Science and Technology parks in each regional city" and "Accelerate government reforms in the education system and the curriculum to obtain a globally competitive human resource with skills relevant to the development paradigm" as key core projects that needed to be implemented.

In response to this, Government of Uganda through Ministry of Education and Sports, launched a BTVET Strategic Plan 2012/13 to 2021/22 entitled "Skilling Uganda". This

plan underscored a paradigm shift in skills development in the country. The plan emphasized creating employable skills and competencies relevant to the labour market rather than educational certificates as was before.

The proposed project obtained funding from World Bank, and under this project, 4 regional technical institutes covering key priority sectors of the economy i.e.[7]Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040, were selected to be upgraded in to Centres of Excellence (CoEs) of which Lira Technical Institute is among.

Relevance

Key strategies of Vision 2040 related to the project include:

- (261 on pg. 92) All Government-supported tertiary education will be devoted to skills development according to the talents and aptitudes identified. Students will be accorded opportunities to excel in whichever skills area they are placed. These will range from sports and the arts, to technical and vocational to research and academic pursuit.[8]
- Fostering increased mobility of labour through creation of incentives for an increase in relevant training and skills re-orientation and provision of greater incentives for not only higher innovation at firm level but also increased factor productivity [Section 47].
- Developing human resources and skills through building Centersof Excellence in education including equipping training institutions and schools with all facilities and amenities such as science laboratories, metal and wood workshops, ICT laboratories among others [Section 69].

5.2.2 The National Environment Management Policy, 1994

The goal of this policy is to promote sustainable economic and social development, mindful of the needs of future generations. The policy calls for integration of environmental concerns into development policies, plans and projects at national, district and local levels, using ESIA as one of the vital tools.

This policy has recently been reviewed to consider all the inadequacies the previous policy had. The revised National Environmental Management Policy (NEMP, 2014) is the cornerstone of the country's commitment to social and economic development that is environmentally sustainable and which will bring the benefits of a better life to all.

This policy is provides an enabling framework for related policies in the environment arena and a roadmap for management of environment resources in Uganda. It is against this policy that the National Environment Act, Cap. 153 was developed. It is this Act that establishes the National Environment Management Authority (NEMA) as the overall authority responsible for overseeing, coordinating and supervising

[7]The Republic of Uganda, Ministry of Education and Sports (2012) – Uganda Skills development Project. Retrieved from http://www.education.go.ug/

[8] National Planning Authority (2012) - Uganda Vision, 2040, retrieved from http://npa.ug/wp-content/themes/npatheme/documents/vision2040.pdf

environmental management in Uganda. Section 3.8 of this policy recognises that development activities and land use practices have impacts on the environment and therefore their assessment and evaluation is essential.

The ***main objective*** of this policy is to provide a system of Environmental Impact Assessment (EIA) and environmental monitoring so that adverse environmental impacts can be foreseen, eliminated or mitigated.

Relevance

- This policy requires that for all development activities in line with the requirements of the national Environment Act, should undergo assessments and evaluation such that related negative impacts are addressed though the Environment Impact Assessment process. According to the Third schedule of NEA, any development that involves major changes in land use is subjected to an EIA.

5.2.3 Gender in Education Sector Policy, 2016

The Gender in Education Policy (GEP), 2009 was developed in line with the Education Sector Strategic Plan (ESSP 2007-2015) to guide gender mainstreaming in Education and Sports countrywide. It was guided by the National Gender Policy (2007), and it complemented other existing policy initiatives that address the barriers to girls' and women's education in Uganda.

This Second Gender in Education Policy links with all the other policies and programmes of the Ministry of Education and Sports as well as seeks to build on the progress registered by previous policies and programmes on promoting gender equality in education. The main purpose of this policy is to guide effective mainstreaming of gender throughout the Education and Sports Sector.

The specific Objectives of the Policy include;

- Enhance equal access and participation for girls and women, boys and men in the education and sports sector.
- Promote the provision of relevant knowledge and skills equally to males and females; *Target: Achieve gender parity pass rate by 2030.*
- Improve the amount of resources allocated for the delivery of gender equality and girls' participation in education, science, technology and sports. *Target: Increase funding for mainstreaming gender into the sector plans and programmes by 50% by 2030*.
- Promote an enabling, protective and gender responsive learning environment for all persons. *Targets: A learning environment that is gender responsive by 2030; Learning environment that is positive and supportive (safe and secure); reduced levels of violence against children in schools by 50% by 2030*.

The policy emphasizes that Education is fundamental human right, and therefore should be accorded to all persons without any discrimination arising from policies, practices and/or environment. This calls for creation of a healthy, protective and supportive environment for both male and female persons to realize their right to education.

Although there was increased enrolment of girls from 31% in 2008 to 42% in 2015, the gender gap in enrolment is still wide (*EMIS 2015*). Total enrollment in Year 3 for

boys is 71.4% compared to 28.6% for girls which reflect high drop-out rates among girls in BTVET.

Majority of Instructors (73%) are males which disadvantages girls; by creating gaps of role models and counselors and affects employment opportunities. There is therefore need for deliberate interventions to promote equal opportunities for boys and girls to BTVET. It is also important to mainstream gender in the implementation of Skilling Uganda – BTVET Strategic Plan 2012/3-2021/2.

The policy goes ahead to highlight the Sub-Sector Policy Objectives, Targets and Strategies for Business, Technical, Vocational Education and Training.

Policy objectives include;

- Promote gender equality in enrolment, retention and achievement in BTVET; increased opportunities especially for girls and women.
- Produce empowered BTVET graduates especially females that are effective in their fields of work and can contribute to national development.

Policy Targets on BTVET include;

- Achieve gender parity at enrolment and completion by 2030.
- Involved stakeholders in the development of skills training and meaningful linkages with employers and community needs.
- Instituted national qualifications' framework to provide alternative paths for BTVET graduates, especially girls and women, to be able to progress within the education system.
- Increased female participation in BTVET; especially in science based and technical skills areas.
- Gender responsive BTVET curriculum development and implementation.

Policy Strategies on BTVET include;

- Implement promotional activities to popularize BTVET among secondary schools to motivate learners especially females to enroll into BTVET institutions;
- Implement affirmative action and infrastructure development for improved women's and girls' participation, retention and achievement in BTVET; including supporting BTVET institutions to design and implement a bridge programme to increase enrolment to science and technical courses especially for female students.
- Build capacity of trainers and managers of BTVET institutions on the delivery of gender responsive BTVET programmes.
- Institute programmes that develop women role models in Science and Technology Education (STE) in order to promote positive attitudes especially among girls and women;
- Collaborate with key stakeholders to create linkages that will promote gender responsive BTVET.
- Ensure the learning environment is gender and disability responsive and promote safety and security in BTVET institutions including supporting the implementation of the National Strategic Plan on the Elimination of Violence against Children in Schools (2015-2020) and the National Strategy on Ending

Child Marriage and Teenage Pregnancy and support reproductive health information and education.
- Budget resources to provide gender and disability responsive infrastructure and facilities including provision of water and sanitation facilities.
- Establish more technical and vocational institutes taking into account regional balance.
- Motivate female tutors to join BTVET institutions and take up leadership positions.

Relevance

This policy shall be essential in the success of the proposed project right from the initial planning stages, construction and operation stages.

5.2.4 The Second National Development Plan (NDPII) 2015/16-2019/20

This calls upon the education sector to promote equal access to education for all. It also states "there is need to consciously target and benefit both women and men…and to actively engage all sectors and Local Governments in mainstreaming gender into their plans, programmes and policies".

Regarding Skills Development, the plan highlights that while some progress has been made towards skilling the Ugandan labour force, the economy still faces substantial skills gaps in key sectors of the economy. In regard to the informal sector, which from anecdotal evidence provides the biggest number of people at the lower skills level, not much progress has been registered in terms of standardization, quality and certification.

To address this therefore, SDG Goal 4 emphasizes the need to ensure inclusive and equitable quality education and promote life-long learning opportunities for all is also very relevant. In particular, by 2030; eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations.

5.2.5 Skilling Uganda BTVET STRATEGIC PLAN 2012/3 to 2021/2

The Strategic Plan is based on a comprehensive analysis of the BTVET sub-sector in terms of relevance, equity, quality, organizational effectiveness and finance/internal efficiency. The Strategic Plan is titled "Skilling Uganda", which denotes a paradigm shift for skills development in Uganda where the BTVET system will be transformed from an educational sub-sector into a comprehensive system of skills development for employment, enhanced productivity and growth. The main purpose is to create employable skills and competencies relevant in the labour market instead of educational certificates.

The five specific objectives to reach the development objective include:

- Raise the economic relevance of BTVET
- Increase the quality of skills provision
- Provide equitable access to skills development
- Achieve greater organizational and management effectiveness in BTVET

a) Increase internal efficiency and resources available for BTVET

This ten-year plan for Business, Technical and Vocational Education and Training (BTVET) sets out the main reforms needed for upgrade the skills of the Ugandan labour force. The strategy builds on considerable progress in the reform of the BTVET system achieved during the last decade, which included the adoption of the BTVET Act in 2008 and the establishment of the Uganda Vocational Qualifications Framework (UVQF).

The plan also sets out individual strategies that are geared to address the most urgent challenges: linking BTVET and the business community, gearing occupational standards and curricula to labour market needs, adjusting training provision to market needs of their clientele, and broadening training supply in occupations essential for the country's development – including agriculture, the informal sector and emerging technologies

Relevance

The above is very relevant to the project in all stages in order to achieve the intended project objectives.

5.2.6 National Industrial Sector Strategic Plan 2010-2020

One of the strategic objectives of this Plan is:-

- to develop the institutional capacity of existing vocational and technical training institutions;
- to design and provide tailored human resource development training programmes at the enterprise level;
- to review curriculum of existing vocation and technical training institutions and align with the industrial sector human resource capacity requirements. Both of the above are in line with aims of this Skills development Project.

5.2.7 National Land Policy, 2013

The Policy calls for adoption of an open policy on information to the public and seek consent of communities and local governments concerning prospecting and mining of these resources;

- Allow to the extent possible, co-existence of individuals and communities owning land in areas where petroleum and minerals are discovered with extraction activity;
- Protect the land rights and land resources of individuals and communities owning land in areas where mineral and petroleum deposits exist or are discovered;
- Guarantee the right to the sharing of benefits by land owning communities and recognize the stake of cultural institutions over ancestral lands with minerals and petroleum deposits.

Relevance

This policy will apply to building construction phase of the project since various earth materials such as stone aggregate and gravel will be need.

5.2.8 National Water Policy, 1999

The objective of the policy is to provide guidance on development and management of the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs, with full participation of all stakeholders and mindful of the needs of future generations. Water use by the camp shall be governed by this policy.

This policy provides guidance on development and management of the water resources of Uganda in an integrated and sustainable manner so as to secure and provide water of adequate quantity and quality for all social and economic needs with full participation of all stakeholders and mindful of the needs of future generations.

Relevance

This policy will apply to Component 2 of SDP which entails civil works and building construction.

5.2.9 National Policy on Disability in Uganda, 2006

The policy recognised the fact that people with disabilities (PWD) received less education and skills training, which reduced their employment opportunities and probably results in secondary disabilities and sometimes early death.

Sec 1.4.11 on Accessibility identified that many buildings do not have facilities such as **ramps for use by PWD which constrains access to education, health and sports facilities,** places of employment, cultural sites and other physical infrastructure.

Relevance

This policy is relevant to the project in two aspects;

Guiding on recruitment during the construction phase to ensure no discrimination in regards to job opportunities; and

Buildings to be constructed by this project should therefore consider access and use by PWD.

5.2.10 Uganda Gender Policy, 2007

The overall objective of the national gender policy (1997) is to mainstream gender in national development process to improve social, legal, political, economic and cultural conditions of citizens, especially of women. The policy defines structures and key target areas for ensuring that gender concerns are routinely addressed in identification, design, appraisal, implementation, monitoring and evaluation of national, sectoral and local government policies, plans and programs.

The gender policy mandates Ministry of Gender Labour and Social Development to coordinate monitor and review the formulation of gender-responsive policies and their implementation within sectors. In light of its central role in national resource mobilization and allocation, Ministry of Finance Planning and Economic Development's role in operationalizing the policy was defined as: ensure that, inter alia: all national policies, programs and projects are gender-responsive and resources are allocated to programs and institutions that promote gender equity.

Relevance

The policy requires that for adequate implementation of gender aspects, there is need to develop a Gender Management Plan and emphasizes equal access to education services and project implementation benefits

5.2.11 National AIDS Policy (2004) and National Strategic Framework for HIV/AIDS activities in Uganda

This provides overall policy framework for national HIV/AIDS response. The National Policy on HIV/AIDS recognizes special groups, which include migrant workers. The Policy recommends the need to identify strategies to address migrant workers in view of the challenges posed by mobility and vulnerability to HIV. This is in line with the Constitution of the Republic of Uganda, 1995 Article 39. This Article creates the right to a clean and healthy environment, implying that workplace safety and health (including prevention of HIV infection), is a basic right of every citizen. Under its General Objective XIV, the State is committed to fulfilling the fundamental rights of all Ugandans to, among others, social justice and economic development and shall, in particular, ensure that all developmental efforts are directed at ensuring the maximum social and cultural well-being of the people.

A number of workers will be expected to come to the project area during construction and these are likely to be exposed to an environment that encourages the spread of HIV /AIDS and other STDs. The strategies to fulfil the objective of this policy will need to be incorporated in project during the planning process.

The National AIDS Policy is aimed at managing the HIV/AIDS pandemic and provides guidance on how to approach the pandemic. Together with the National Strategic Framework for HIV/AIDS activities in Uganda, it provides overall guidance for activities geared towards preventing the spread of HIV/AIDS.

This will be achieved through:

- Increased coverage and utilization of HIV prevention services. Attainment of this goal and outcomes is also contingent on
- Increased adoption of safer sexual behaviors and reduction in risk taking behaviors,
- A strengthened and sustainable enabling environment that mitigates underlying factors that drive the HIV epidemic,
- Strengthened leadership and coordination of HIV prevention programs, and
- Strengthened information systems for HIV prevention.

Role of Workers;

- Initiate dialogue on HIV/AIDS between employers and workers and to actively participate in the development and implementation of workplace prevention programmes i.e. awareness campaigns, dissemination of information and education, care and support.
- Participate in the development of workplace policies
- Participate in mainstreaming of HIV/AIDS into the workplace policies and programs[9]

[9] Uganda National Policy on HIV/AIDS and the World of Work - MP, Hon. SydaN.M.Bbumba

Relevance

Social ills of construction are common in such projects. This policy is relevant as it will guide the contractor and the involved stakeholders to develop and implementation HIV policies.

5.2.12 National Construction Industry Policy, 2010

Also called "Policy for Development and Strengthening the National Construction Industry", this policy recognised in Sec 3.5 that while all education and training institutions associated with the construction industry provide education and training in the technical skills of design and construction techniques there is need to formally incorporate into the curriculum the delivery of 'soft skills" of communication, socio-economic issues, contract law, and entrepreneurship for business creation, and business management.

Relevance

Curriculum review proposed in this project presents opportunity to incorporate management and socio-environmental skills training at Lira Technical Institute.

5.2.13 Environment Health Policy -2005

The Environmental Health Policy concentrates on the importance of environmental sanitation which includes: safe management of human waste and associated personal hygiene; the safe collection, storage, and use of drinking water; solid waste management; drainage; and protection against disease vectors (MOH 2005). Environmental health practices include: safe disposal of human waste, hand washing, adequate water quantity for personal hygiene and protecting water quality, all influence the morbidity and mortality of diarrheal diseases.

As per this study, the public health aspect has been given adequate attention in preparation of this ESIA, aspects included impact on water and possible contamination identified, traffic impacts and accidents, occupational health and safety issues at key points, measures proposed to ensure that workers and people are not affected during the works and operation, noise and dust issues around areas of concentrated business as well as key administrative units.

Relevance

The policy will guide implementation of Public Health and hygiene intervention measures on the project.

5.3 Legal Framework

The key laws applicable to the environmental and social management associated with the proposed up scaling of Uganda Technical College – Lira and its 3 Networking Institutes include but not limited to the following;

5.3.1 Constitution of the Republic of Uganda, 1995

This provides for, among others;

- The right of every Ugandan to a clean and healthy environment (Article 39);

- The responsibility of Government to enact laws that protect and preserve the environment from degradation and to hold in trust for the people of Uganda such natural assets as lakes, rivers, wetlands, game reserves and national parks (Article 237,2);
- The right of every Ugandan to fair and adequate compensation in instances of land acquisition.

The Constitution in its National Objectives and Directive Principles of State Policy according to; Objective XIII provides for the protection of natural resources. It provides that "the State shall protect important natural resources, including land, water, wetlands, minerals, oil, fauna and flora on behalf of the people of Uganda".

Relevance

The constitution is the prime law upon which all environmental laws and guidelines are based. The right for everybody to a clean environment is proffered by S237 of the Constitution and by preparing this Project Brief; the project aims to comply with this requirement.

5.3.2 National Environment Act, Cap 153

The National Environment Act, Cap. 153, establishes and defines functions and authority of the National Environment Management Authority as a body responsible for management, monitoring and supervision of all environmental conservation activities (Section 4). This act provides for various strategies and tools for environment management, which also includes the EIA. According to Section 19 and 20, of this act requires that all projects listed in the Thirds Schedule of this act should under-go an Environmental Impact Assessment, this is due to the fact that such projects are likely to have significant environmental impacts.

Section 48 provides powers to NEMA, the district environment committee and local environment committees to be responsible for monitoring implementation of local land-use plans, which shall be in conformity with the national land-use plan.

While undertaking construction works, it is anticipated that there will be generation of different kinds of pollutants to the environment. Section 24 – 32, clearly affirms that a multitude of environmental standards that prevent contamination of air, water and soil resources were to be developed and implemented by different projects. Section 56 prohibits discharge of hazardous substances, chemicals, oil, etc into the environment except in accordance with guidelines prescribed by NEMA. Section 106 outlines provisions to enable compliance with obligations of international conventions on the environment.

Section 20 (i) of NEA requires that projects likely to have significant environmental impacts should have an EIA conducted before their implementation.

Relevance

According to Section 1 © “Major landuse changes”, requires that projects likely to cause a major change to the land uses, such as the proposed development projects under USDP funding of Phase 1, including other related activities listed in Section 10 “electrical infrastructure” , of this Third Schedule require that an Environmental Impact Assessment is undertaken. With required to the requirement of this Act, this

report has been compiled into a Project Brief as per Section 19 of this Act. This Act benchmarks the requirements of Environmental Impact Assessments (EIA) that governs all the projects to be implemented as long as they fall under the requirements of the Third Schedule.

5.3.3 Education Act, 2008

This Act provides to amend, consolidate and stream line the existing law relating to the development and regulation of education and training, to repeal the Education Act and to provide for other related matters.

Section 5 of Part III (*Provision of Education and Training*) sets out the Responsibilities of stakeholders in education and training, which among others include;

- Setting policy for all matters concerning education and training;
- Setting and maintaining the national goals and broad aims of education;
- Providing and controlling the national curriculum;
- Evaluating academic standards through continuous assessment and national examinations;
- Ensuring equitable distribution of education institutions;
- Regulating, establishing, and registering of Educational institutions;

In addition, subject to this Act, the District Councils' Standing Committee responsible for education are responsible for the over sight role of all educational services decentralized to a district, municipal, town council, division and sub county. This, the committee carries out through, among other ways, developing an education development plan for promoting educational services for which it is responsible.

Relevance

This Act highlights the role of stakeholder engagement, especially the local education committees, in all projects concerning educational services. As such, during the ESIA, consultations and engagements with such committees shall be continuously carried out to ensure the proposed project lines with their plan (if established) and that all their views and concerns are considered during project implementation for the benefit of the community.

5.3.4 The Business, Technical, Vocational Education and Training Act, 2008

This Act provides for the promotion and coordination of business, technical, vocational education and training; to provide for the principles governing BTVET; to establish the institutional framework for the promotion and coordination of BTVET; to establish the Uganda Vocational Qualifications Framework; to provide for the financing of BTVET and for other related matters.

The objective of BTVET is—

- To provide relevant knowledge, values and skills for purposes of academic progression and employment in the labour market;
- To provide access to BTVET to a larger number of persons
- To improve the quality of BTVET;

- To make BTVET affordable;
- To enhance the productivity capabilities of the individual for employment and self-employment;
- To monitor gaps between supply and demand for skills; and
- To facilitate sound and sustainable financing and funding mechanisms for business technical vocational education training.

Among others, BTVET is based on the principle of prompting an intergraded demand driven and competent based modular BTVET system where learners enter the system at various points suited to their skills and needs, with their qualifications certified and recognized at different levels.

Relevance

This Act is relevant and shall guide Project implementation since infrastructure development under USDP shall be directly linked to the skill demand in the current labour market.

5.3.5 The Universities And Other Tertiary Institutions (Amendment) Act 2006.

This Act provides for the establishment of the National Council for Higher Education, its functions and administration and streamlines the establishment, administration and standards of Universities and other *institutions of Higher Education* in Uganda and to provide for other related matters. The amendment made to the Act in 2006 provides for the establishment of institution that award degrees but are not universities; to empower the national council for Higher Education to accredit not only institutions of higher education, but also the academic and professional programmes of those institutions in consultation with professional Associations and Regulatory bodies.

Relevance

This Act shall be relevant to the proposed project since it also aims to design a curriculum and provide skills based on the labour market demands, revisions of which shall have an impact on the awarding and certification module. The Act shall therefore guide such activities.

5.3.6 Children Act, Cap 59 / the Children (Amendment) Act, 2016

The objective of this Act is to reform and consolidate the law relating to children; to provide for the care, protection and maintenance of children; to provide for local authority support for children; to establish a family and children court; to make provision for children charged with offences and for other connected purposes. This Act was amended in 2016 to enhance the protection of children; to strengthen the provision for guardianship of children, to strength the conditions for inter country adoption; to prohibit corporal punishment; to provide for National Children Authority, repeal the National Council for Children Act, Cap 60 and to provide for other related matters.

Relevance

- In the second schedule, the Act prohibits child Labour; employment or engagement of any child in any activity that may be mentally, physically, socially or morally dangerous and harmful to his or her health, education or

mental, physical or moral development. *The proposed project will involve employment of especially the local workforce, during the construction phase. Therefore the contractor shall work hand in hand with the local authority to avoid child employment; deeming this Act relevant to the project*

- Part II of the same schedule of this Act defines a child as a person below the age of eighteen years. By virtue of the level of admission (starting from O' level), the college and its networking institutes admit students that are below the age of eighteen. *It's therefore important that this Act is used as a tool during the designing and implementation stages of the project to ensure those programs, infrastructure and the instructions are tailored to suit the child. It is also imperative that child protection against molestation and harassment especially by the contractor's labour force.*

5.3.7 National Council for Children Act, Cap 60

Chapter 60 of this Act defines the National Council for Children Acts main purpose i.e. to provide a structure and mechanism for the proper coordination, monitoring and evaluation of all policies and programmes relating to the survival, protection and development of children in Uganda basing on the Councils objectives (s. 3) including;

- To articulate the needs and problems of children to government and other stakeholders in the project area of the care and protection of children;
- To coordinate the provision of child-based activities in the project area to ensure integrated approaches and maximum use of resources, to avoid resource wastage;
- To assist local governments in the development of action plans for children as well as in developing monitoring systems for their implementation;
- To act as a monitoring agency of activities by different stakeholders relating to children including monitoring their changing needs and/or emerging priorities.

Relevance

- (FIDA)[10] Also affirms that Uganda has an obligation to implement children's rights in all projects as communicated in the Convention on Child Rights (CRC 1990).

5.3.8 Water Act, Cap 152

The objective of the Act is to enable equitable and sustainable management, use, and protection of water resources of Uganda through supervision and coordination of public and private activities that may impact water quantity and quality.

Section 18 requires that before constructing or operation of any water works, a person should obtain a permit from Directorate of Water Resources Management (DWRM). Construction is herein defined to include alteration, improvement, maintenance and repair of water systems. The Act also aims to control pollution of water resources (Sections 28 and 31).

- Relevance
- This Act shall be relevant to the project in two ways;

[10]Collection Of Children LAWS Hand Book - FIDA

- For all water related construction works planned under the USDP funding of phase 1, which include workshops, new bathrooms, toilets and laundry among others.
- Where the available water is insufficient to supply both the institute needs and the construction works, the contractor may need to abstract water from the neighboring water sources. In this case, to regulate the amount of water abstracted for sustainable use of the source, the contractor will be mandate to work hand in hand with DWRM to acquire the necessary permits and adhere by the conditions therein.

5.3.9 Local Governments Act, Cap. 243

This Act provides for decentralised governance and devolution of central government functions, powers and services to local governments that have own political and administrative set-ups. LiraDistrict local government has the powers to oversee implementation of all development activities in her district, such as the proposed UTC - Lira. During the development of this proposed project and all her components listed under phase 1 of the USDP funding, there are a number of units in the Local Government that shall actively be part of this project right from conceptualization to operation. These include:-[11]

- District Councils' Standing Committee responsible for education which are responsible for over-seeing the roleof all educational services decentralized in their areas.
- The District Educational Officer is responsible for coordinating and providing technical and professional guidance in the management of Education and Sports policies, plans and programmes in the District.
- The District Community Development Officer is responsiblefor managing and coordinating the implementation of policies, programmes, projects and laws of government and Local Council III for the general welfare and development of the population.
- The District Labour Officer is responsible for promoting the social welfare and safety of the workers in the district/Urban Council.
- The District Environment Officer is responsible support environmental conservation programmes in the District.
- The District Engineer is responsible for coordinating and managing all engineering and technical works in the Municipality.

UTC-Lira is located in Lira Municipality, and therefore the above corresponding units of the Local Government at the Municipal serve the same responsibly.

According to Section 9 of the Act, a local government is the highest political and administrative authority in its area of jurisdiction and shall exercise both legislative and executive powers in accordance with this Constitution. Therefore the above relevant local governmentunits or members shall have direct stakeholder and institutional responsibility over the proposed project.

The Local Governments Act provides for a system of local governments which is based on the district. Under a district administration there are lower local

[11] MINISTRY OF PUBLIC SERVICE (2011) JOB DESCRIPTIONS AND SPECIFICATIONS FOR JOBS IN LOCAL GONVERNMENT

governments and administrative units. This system provides for elected councils for which executive committees of each council is nominated by the chairman.

Functions of this committee include:

- Initiating and formulating policy for approval of council;
- Overseeing the implementation of the government and councils' policies, and monitor
- Coordinate activities of non-government organisations in the district; and
- Receiving and solving disputes forwarded to it from lower local governments.

Relevance

This Act provides for a decentralized system of government in which certain services have been made the responsibility of the central government, while others have been made the responsibility of the local governments. With regards to construction of this project, a number of relevant offices at the local government level have been listed whose interaction will be critical during project implementation.

Review of the Environmental and Social Management Framework of 2016 affirms that interaction of district leaders is critical considering that District Environmental Officers were involved in the screening phase of these projects.

5.3.10 The Occupational Safety and Health Act, 2006

This is a two way Act: It obliges employers to protect their workers and charges the employees to take responsibility of their safety while at work. The Act is concerned of not only the work area but also its immediate environment.

According to section 13 (1)a of the Occupational Safety and Health Act, it is the responsibility of an employer to take as far as reasonably practicable, all measures for the protection of his or her workers and the general public from the dangerous aspects of the employer's undertaking at his or her own cost.

Section 19 (2) further spells that it shall be the duty of an employer to ensure that Personal Protective Equipment provided under sub section (1) is used whenever it is required.

Section 41 further stipulates that such work place shall be issued with certificate of registration by the Commissioner after appropriate fees have been paid. The certificate has to be in a format prescribed in Schedule 4 of this act. Section 41 also indicates that the Commissioner shall require the occupier of the premise sets up Safety Committee where applicable with 6 months from the time of occupying registered workplace.

Relevance

This Act is of relevance to this project especially during its implementation to guarantee the safety of all the workers that will be involved in the project and including the surrounding community members of the respective communities.

5.3.11 Employment Act, Cap 219

This was enacted to revise and consolidate the laws governing individual employment relationships, and to provide for other connected matters.

Employment Act, 2006 repeals Employment Act (Cap 219) enacted in 2000 and it is the principal legislation that seeks to harmonise relationships between employees and employers of the contracted company to upgrade the proposed road, protect workers interests and welfare and safeguard their occupational health and safety through:

- Prohibiting forced labour, discrimination and sexual harassment at workplaces (Part II; Part IV).
- Prohibiting employment of persons under the apparent age of eighteen years, otherwise than as provided in this Act. (Part VI)
- Providing for labour inspection by the relevant ministry (Part III).
- Stipulating rights and duties in employment (weekly rest, working hours, annual leave, maternity and paternity leaves, sick pay, etc. (Part VI).
- Continuity of employment (continuous service, seasonal employment, etc (Part VIII).

In addition, the Act, in section 6 of Part II also prohibits discrimination in employment and this includes any distinction, exclusion or preference made on the basis of race, sex, colour, religion, political opinion, National extraction or social origin, the HIV status or disability which has the effect of nullifying or impairing the treatment of a person in employment or occupation or of preventing an employee from obtaining any benefit under a contract of service.

Regarding sexual harassment at the work, the Act, in section 7 of the same part directs that if an employee is sexually harassed in any way described in subsection (1) of the Act, by the employer or employer's representative, the employee is entitled to lodge a complaint with a labour officer and the labour officer has the powers to make all of the orders he or she could have made if the complaint was a complaint about unjustified disciplinary penalty or unjustified dismissal.

It goes ahead to indicate that every employer who employs more than twenty five employees is required to have in place measures to prevent sexual harassment occurring at their work place.

Relevance

This Act is therefore deemed very relevant to the project since it will employ a number of workers, both local and international. It's therefore important that provisions of this Act are closely considered in the recruitment, drafting contracts and in the general employment procedure.

5.3.12 Public Health Act, Cap 281

This Act aims to avoid pollution of environmental resources that support health and livelihoods of communities. The Act gives local authorities authority (Section 103) to prevent pollution of watercourses in interest of public good like the advance pollution effects from the proposed project.

In Section 56 of part IX; the Act sets out the Duty of local authorities to prevent or remedy danger to health arising from unsuitable dwellings; where it mandates them

to take all lawful, necessary and reasonably practicable measures for preventing or causing to be prevented or remedied all conditions liable to be injurious or dangerous to health arising from the erection or occupation of unhealthy dwellings or premises, or the erection of dwellings or premises on unhealthy sites or on sites of insufficient extent, or from overcrowding, or from the construction, condition or manner of use of any premises, and take proceedings under the law or rules in force in its area against any person causing or responsible for the continuance of any such condition.

Relevance

This Act and its regulations will therefore be relevant to the project both in the design and construction phases to ensure that the project is implemented in such a manner as to avoid pollution of environmental resources that support health and livelihoods of communities.

5.3.13 Workers' Compensation Act 2000

The Act Provides for compensation of workers for injuries suffered and scheduled diseases incurred in the course of their employment.

The Act further spells out degrees of compensation depending on the levels of incapacitation, calculation of respective earnings, medical examination and treatment of workers, agreement as to compensation by the worker, power of court to submit question of law, determination of claims and decisions of the court concerning the treatment of medical reports as well as procedures relating to claims.

Section 9 of part II however emphasizes the need for notification of an accident in order for compensation to be payable under this Act. It states that "Compensation may not be-payable under this Act unless notice of the accident has been given to the employer by or on behalf of the worker as soon as is reasonably practicable, and in any case within one month after the date when the accident occurred or within three months after the date the symptoms of the occupational disease became apparent; but no notice is required where it is shown that the employer was aware of the accident or disease at or about the time it occurred or at the time when the symptoms became evident, or for any reasonable cause".

Regarding the role of the Labour officer, section 10 of this Act emphasizes the need to notify the Labour officer of the area of any accident occurring either by telephone, or any other reasonable means and urges that the report be followed immediately by a written report of the accident before the worker has voluntarily left the employment in which he or she was injured.

In the second schedule, the Act goes ahead to spell out the percentages for permanent incapacities upon which compensation for accidents can be calculated.

Relevance

This Act is applicable to this project to deal with issues likely to accrue from accidents while at work, during the construction phase.

5.3.14 Historical Monuments Act, Cap 46

Assented to on 21st October, 1967 and came into force on 15th May 1968, this Act provides for the preservation and protection of historical monuments and objects of

archaeological, paleontological, ethnographical and traditional interest. The historical monuments act, Cap 46 gives mandate to the Department of Museums and Monuments to collect document and preserve cultural relics that have values to the community, the nation and the international community.

Relevance

Initial assessments of the institutes revealed no exitu features (no feastures above the earth surface) of cultural preservation importance. However, the Act is relevant to the project and relates more relevantly to "chance finds" that could be made during earthworks in the construction phase. These physical cultural resources could be encountered during civil excavation works, and therefore such features of cultural importance shall be reported to the Department of Museums and Monuments for advice and where necessary undergo a forensic assessment.This is commensurate to the Project Appraisal Document, which qualified this project to respond to the Physical Cultural Resources World Bank Operational Policy (OP/BP).

5.3.15 Penal Code Act, 1950/ Penal Code (Amendment) Act, 2007

The Penal Code Act, 1950 was amended in 2007 and only a few sections were replaced, amended and/or repealed. The following is relevant to this project: the principal Act was amended by substituting for section 129 a section for "Defilement of persons less than eighteen years of age. Section 129 (1) spells out the punishment for defilement; Any person who performs a sexual act with another person who is below the age of eighteen years, commits a felony known as defilement and is on conviction liable to life imprisonment. This is relevant since the project will fetch a lot of workers from different regions. These being institutions, this will pose a risk on the students but also to those in the neighboring schools. It is therefore important that the contractor considers this section in developing and implementing the code of conduct.

In addition, Section 3 the 1950 Act ascertains that a person (contractor) is not criminally responsible in respect of an offence relating to property if the act done or omitted to be done by the person with respect to the property was done in the exercise of an honest claim of right and without intention to defraud. This basically applies in situations of the lease agreements between the contractor and the land owners for the proposed workers' Camp site in cases of conflict.

Whereas section 4 (1), address Incitement to violence by contractor's workers under the project.

Any person who, without lawful excuse, prints, publishes or to any assembly makes any statement indicating or implying that it would be incumbent or desirable to do any acts calculated to bring death or physical injury to any person or to any class or community of persons; or to do any acts calculated to lead to destruction or damage to any property, commits an offence and is liable to imprisonment for three years.

Relevance

It's upon this Act that Code of Conduct guidelines intended to establish and clarify the standards for behaviour of the contractor's workers under this project can be developed.

5.4 Regulations

The following regulations are relevant to the project;

5.4.1 The EIA Regulations, 1998

The procedures and guidelines for conducting ESIAs are stipulated in this regulation. The regulations require a detailed study to be conducted to determine the possible environmental impacts, and measures to mitigate such impacts. At the end of the study, the environmental assessment report is submitted to NEMA to take a decision as to whether to approve or reject the project. As per section 12, public participation is a requirement. The people living in near the site ought to know what is happening in their area hence an EIA study is necessary such that various stakeholders will be informed of the project concept, and widely consulted for their views on the proposed stone crushing activities.

Relevance

These Regulations serve to guide the ESIA process with active involvement of the relevant stakeholders and neighbouring community to UTC - Lira. This study was therefore undertaken in line with the provisions the Regulation

5.4.2 National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, 1999

Section 6 (2) provides for the maximum permissible limits for 54 regulated contaminants, which must not be exceeded before effluent is discharged into water or on land. The national discharge limits for selected contaminants are given in Table below. Through limits on over 54 parameters, these regulations control discharges in surface watercourses.

Table 15: National discharge standards for selected pollutants

Parameter	National discharge standards
BOD_5 (mg/l)	50
Suspended solids (mg/l)	100
Faucal coliforms	10,000 counts/ 100ml
Chlorine residual (mg/l)	1 mg/l
Ph	6-8
Phenols (μg/l)	0.2 mg/l
Oil and grease (mg/l)	10 mg/l
Total Phosphorus (mg/l)	10 mg/l
Temperature	20-35^{o}C

Source: The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, 1999.

Relevance

It is therefore, required that the lagoon at the western side of the college which could be affected by construction activities of the project listed under USDP financing for Phase 1, the contractor should carry out baseline assessment and analysis, to ascertains the conditions and monitor the concentration of pollutants not to divert from the natural conditions nor exceed their commended limits

provided above.

5.4.3 National Environment (Waste Management) Regulations, 1999

These regulations require waste disposal in a way that would not contaminate water, soil, and air or impact public health. Construction projects are characterised with a diversity of wastes ranging from hazardous wastes to simple domestic wastes. Some of these hazardous wastes include; oil filters, used oils, spoil bitumen, oil drums to mention but a few. Management of these hazardous wastes has been provided for in this law.

Relevance

This is in relation to onsite storage, haulage and final disposal. According to the regulations, in cases of hazardous wastes generated on site such as engine oils from servicing on construction equipment, haulage and disposal should be done by a NEMA licensed entity.

5.4.4 National Environment (Noise Standards and Control) Regulations, 2003

Part III Section 8 (1) requires machinery operators, to use the best practicable means to ensure that the emission of noise does not exceed the permissible noise levels. The regulations require that persons to be exposed to occupational noise exceeding 85 dBA for 8 hours should be provided with requisite ear protection.

Table 16: Regulatory noise limits (Uganda)

Facility	Noise limits dB (A) (Leq)	
	Day*	Night*
Construction sites	75	65
*Time frame: Day 6.00a.m -10.00 p.m; Night 10.00 p.m. - 6.00 a.m.		

Source: The National Environment (Noise Standards and Control) Regulations, 2003.

Relevance

Construction of projects listed under phase 1, will generate a considerable amount of noise, mostly from the concrete mixers, movement of earth mould equipment such as excavators and the like. This impact will be felt most during operational periods of the college as compared to holiday times. The regulation therefore employs the Contractor to minimise the noise levels to be generated and also ensure that the noise levels don not exceed the recommendable permissible levels.. This can be achieved by using a noise-meter at an agreed frequency to check the noise levels during the construction phase.

5.4.5 Draft National Air Quality Standards, 2006

Construction of the projects listed under phase 1 for the USDP financing such as the 6 workshops, new classrooms, power upgrade phase 1 among others, will be undertaken by deploying a considerable number of equipment that will range from excavators, cranes, trucks, vehicles, graders, and these are all powered by fossil fuels. Combustion of these fossil fuels emits pollutants such as COx, NOx, SOx, VOC and particulates. The draft national air quality standards provide the following regulatory limits for these emissions Table below.

Table 17: Regulatory air quality standards for selected pollutants

Pollutant	Average time for ambient air	Standard for ambient air
Carbon dioxide (CO_2)	8 hr	9.0 ppm
Carbon monoxide (CO)	8 hr	9.0 ppm
Hydrocarbons	24 hr	5 mgm^{-3}
Nitrogen oxides (NO_x)	24 hr 1 year arithmetic mean	0.10 ppm
Smoke	Not to exceed 5 minutes in any one hour	Ringlemann scale No.2 or 40% observed at 6m or more
Soot	24 hr	500 $\mu g/Nm^{-3}$
Sulphur dioxide (SO_2)	24 hr	0.15 ppm
Sulphur trioxide (SO_3)	24 hr	200 $\mu g/Nm^{-3}$

Note: *ppm = parts per million; "N" in $\mu g/Nm^{-3}$ connotes normal atmospheric conditions of pressure and temperature (25°C and 1 atmosphere).*

Relevance

Construction of these projects listed under Chapter 3, will result into pollution of the ambient air quality, therefore this regulation is important since it provides the acceptable limits of all pollutants that need to be observed during project establishment.

5.4.6 The National Environment (Audit) Regulations 2006

Regulation 8 provides that the owner /operator of facility whose activities are likely to have a significant impact on the environment shall establish an environment management system. It is also normal practise and a recommendation of National Environment Management Authority approvals to conduct mandatory audits of projects /infrastructure between 12 and 36. Section 6 of this regulation outlines the content of an audit report and Section 7 requires that after 14 days of completion of the Audit report, it shall be submitted to NEMA for review.

Relevance

The contractor should hence develop an EMS, as a contractual obligation. It also requires that an Environmental Audit is undertaken after one year (per annum) during the construction phase.

5.5 The Relevant Multilateral Environmental Agreements (MEAs)/Convention to Which Uganda Is Party

Uganda is a signatory to a number of International Agreements which are relevant to supporting the National efforts in environmental management including the welfare of communities. They are relevant to the infrastructure development provided they support or are in consonance with the applicable Laws and Regulations in Uganda. The sections below describe some of these agreements/conventions.

5.5.1 International Commitments on Gender Equality in Education

Uganda is a signatory to a number of international commitments on education. Key among these includes the Convention on the Rights of the Child (CRC), the Convention on Elimination of all Forms of Discrimination Against Women (CEDAW), Education For All (EFA) Goals, the Beijing Declaration and Platform for Action (PFA) and the Sustainable Development Goals (SDGs). The CRC in Article 28 places commitment on the State Parties to fulfil the right to education for all children. The CRC also highlights the principle of non-discrimination in Article 2, emphasizing quality and equity between males and females at all levels. The CEDAW, Article 1, prohibits all forms of discrimination against women and girls' including the right to education and in Article 2 commits governments to take appropriate action on the advancement of women including advancement through education. Education For All (EFA) Goals particularly goal5 aims at eliminating gender disparities in primary and secondary education and achieving gender equality in education. The SDGs particularly Goal 4 aims at ensuring inclusive and equitable quality education and promotes lifelong learning opportunities while Goal 5 aims at achieving gender equality and empower women and girls. These commitments provide strong grounds for the delivery of gender equality in education and sports.

5.5.2 The Convention on Biological Diversity (CBD)

The aim of the CBD is to effect international cooperation in the conservation of biological diversity and to promote the sustainable use of living natural resources worldwide. It also aims to bring about the sharing of the benefits arising from the utilization of natural resources. Parties to this convention are required to undertake EIA for projects likely to have significant adverse effects on biodiversity and develop national plans and programs for conservation and sustainable use of bio diversity.

5.5.3 UNESCO World Heritage Convention, 1972:

In the International arena, the legal regime regarding Cultural Heritage basically emanates from the UNESCO World Heritage Convention, 1972. The convention is concerned with the protection of the World Cultural and Natural Heritage. This convention gives the basis of recommendations developed by experts to conserve Cultural Heritage. Uganda, the country within which this project is to be constructed, is a member of UNESCO and as such is bound by the recommendations made by the convention in the protection of Cultural Heritage. This regulation covers all exchange findings on the project.

5.5.4 The African Convention on the Conservation of Nature and Natural Resources, 1968

The contracting states to this Convention are required to undertake / to adopt measures to ensure conservation, utilization and development of soil, water, flora and fauna resources in accordance with scientific principles and with due regard to the best interest of the people. The States are also required to ensure that the conservation and management of natural resources are treated as an integral part of National and /or Regional Development Plans. In addition during the formulation of all development plans, full consideration is required to be given to ecological, as well as to economic and social factors.

5.5.5 The United Nations Framework Convention on Climate Change (UNFCCC), 1992

The United Nations Framework Convention on Climate Change (UNFCCC) addresses the threat of global climate change by urging Governments to reduce the sources of greenhouse gases. The ultimate objective of the Convention is to stabilize the greenhouse gases concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system of the world. The Framework does not have legally binding measures to contain GHG emissions. The Kyoto Protocol is the one whose focus is to decrease carbon dioxide emissions. It establishes emission – related targets for G -77 Countries as listed in Annex 1 of the Convention. There are three instruments through which Annex 1 Parties (which are the Developed Countries) may indirectly reduce their greenhouse gas emissions which are:

- Emission Trading;
- Joint Implementation (JI); and
- The Clean Development Mechanism (CDM).

5.5.6 The Convention for the Safeguarding of the Intangible Cultural Heritage, 2003

The Convention calls on States that have ratified it to Safeguard Living Heritage on their own territories and in cooperation with others. It seeks to celebrate and safeguard the intangible heritage distinctive for particular communities. It affirms that the intangible heritage of all communities – whether they are large or small, dominant or non-dominant – deserve respect.

The Convention defines "intangible Cultural heritage" as the practices, representations, expressions, knowledge, skills as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities , groups and, in some cases, individuals recognize as part of their Cultural Heritage. This Intangible Cultural Heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.

The Project therefore will be required not to disrupt the Living Heritage but will be expected to safeguard it so that it can ensure that the heritage where it exists continues to be practiced and transmitted within the community or group

concerned. Communities should be actively involved in safeguarding and managing their Living Heritage, since it is only they who can consolidate its present and ensure its future.

5.5.7 The Stockholm Convention

The Convection seeks to protect human health and the environment from persistent organic pollutants (POPs). Uganda acceded to the Convention on 20th July 2004. Among the pollutants, controlled under the Convention are unintentionally released persistent organic pollutants. The National Implementation Plan (NIP) developed under the Convention in December 2008, to eliminate and minimize the impacts of (twelve) 12 of the most harmful hazardous chemicals in the world, identifies over 70% of the unintentionally released POPs to be a result of uncontrolled open burning of waste. The Plan, therefore, recommends reduction of unintentionally released POPs through emission at source by promoting cleaner production methods and Best Available Techniques (BAT) and Best Environmental Practices (BEP). Management of waste under the project will have to be undertaken in line with this requirement by avoiding burning of waste, among others.

5.5.8 Basel Convention and Minamata Convention on Mercury

The objective of the Convention is to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds and it sets out a range of measures to meet that objective. These include measures to control the supply and trade of mercury, including setting limitations on specific sources of mercury such as primary mining, and to control mercury-added products and manufacturing processes in which mercury or mercury compounds are used, as well as artisanal and small scale gold mining.

The text of the Convention includes separate articles on emissions and releases of mercury, with controls directed at reducing levels of mercury while allowing flexibility to accommodate national development plans. In addition, it contains measures on the environmentally sound interim storage of mercury and on mercury wastes, as well as contaminated sites. Provision is made in the text for financial and technical support to developing countries and countries with economies in transition, and a financial mechanism for the provision of adequate, predictable and timely financial resources is defined.

5.6World Bank (WB) Safeguard Policies

5.6.1 OP 4.01 Environmental Assessment

The World Bank's environmental assessment (EA) policy and recommended processing are described in Operational Policy (OP)/Bank Procedure (BP) 4.01: Environmental Assessment (Table 11). Its purpose is to improve decision making, to ensure that all options under consideration are sound and sustainable, and that potentially affected people have been properly consulted. Environmental Assessment (EA) is one of the 10 environmental, social and legal Safeguard Policies of the World

Bank. EA is used in the World Bank to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank lending operations. This policy is considered to be the umbrella policy for the Bank's environmental 'safeguard policies'.

Table 18: OP 4.01 Environmental Assessment

Objectives	Operational Principles
To help ensure the environmental and social soundness and sustainability of investment projects	a) Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of Environmental Assessment (EA) so that appropriate studies are undertaken proportional to potential risks and to direct, and, as relevant, indirect, cumulative, and associated impacts. Use sectorial or regional environmental assessment when appropriate;
	b) Assess potential impacts of the proposed project on physical, biological, socio-economic and physical cultural resources, including trans-boundary and global concerns, and potential impacts on human health and safety.
	c) Assess the adequacy of the applicable legal and institutional framework, including applicable international environmental agreements, and confirm that they provide that the cooperating government does not finance project activities that would contravene such international obligations.
	d) Provide for assessment of feasible investment, technical, and siting alternatives, including the "no action" alternative, potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and their institutional, training and monitoring requirements associated with them.
	e) Where applicable to the type of project being supported, normally apply the Pollution Prevention and Abatement Handbook (PPAH). Justify deviations when alternatives to measures set forth in the PPAH are selected.
	f) Prevent and, where not possible to prevent, at least minimize, or compensate for adverse project impacts and enhance positive impacts through environmental management and planning that includes the proposed mitigation measures, monitoring, institutional capacity development and training measures, an implementation schedule, and cost estimates.
	g) Involve stakeholders, including project-affected groups

	and local non-governmental organizations, as early as possible, in the preparation process and ensure that their views and concerns are made known to decision makers and taken into account. Continue consultations throughout project implementation as necessary to address EA-related issues that affect them.
	h) Use independent expertise in the preparation of EA where appropriate. Use independent advisory panels during preparation and implementation of projects that are highly risky or contentious or that involve serious and multi- dimensional environmental and/or social concerns.
	i) Provide measures to link the environmental assessment process and findings with studies of economic, financial, institutional, social and technical analyses of a proposed project.
	j) Provide for application of the principles in this Table to the project under investment and financial intermediary activities.
	k) Disclose draft EA in a timely manner, before appraisal formally begins, in an accessible place and in a form and language understandable to key stakeholders.

Relevance: The Project actuates this policy because although there is justification for the proposed project, there are also environmental impacts associated with the construction and operation. OP 4.01 requires an Environmental Assessment (EA) of projects proposed for WB financing to ensure that they are environmentally sound and sustainable, and thus to improve decision making. In this regard, a comprehensive Environmental and Social Impact Assessment has been undertaken by the Proponent to establish a detailed Environmental Management Plan that will provide guidelines for environmental stewardship of the construction and operational phases of the Project.

5.6.2 OP 4.11 - Physical Cultural Resources

Cultural resources are important as sources of valuable historical and scientific information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. The loss of such resources is irreversible, but fortunately, it is often avoidable. The objective of OP/BP 4.11 on Physical Cultural Resources is to avoid, or mitigate, adverse impacts on cultural resources from development projects that the World Bank finances.

Table 19: OP 4.11 Physical cultural resources

Objectives	Operational principles

To assist in preserving physical cultural resources and avoiding their destruction or damage. PCR includes resources of archaeological, paleontological, historical, architectural, and religious (including graveyards and burial sites), aesthetic, or other cultural significance.	a) Use an environmental assessment (EA) or equivalent process to identify PCR and prevent or minimize or compensate for adverse impacts and enhance positive impacts on PCR through site selection and design.
	b) As part of the EA, as appropriate, conduct field based surveys, using qualified specialists.
	c) Consult concerned government authorities, relevant non-governmental organizations, relevant experts and local people in documenting the presence and significance of PCR, assessing the nature and extent of potential impacts on these resources, and designing and implementing mitigation plans.
	d) For materials that may be discovered during project implementation, provide for the use of "chance find" procedures in the context of the PCR management plan or PCR component of the environmental management plan.
	e) Disclose draft mitigation plans as part of the EIA or equivalent process, in a timely manner, before appraisal formally begins, in an accessible place and in a form and language that are understandable to key stakeholders.

Relevance: The activities of the Project have the potential to trigger this policy in a sense that during the construction phase, chance findings may not be rule out especially during earth excavations.

5.6.3 OP 4.12 - Involuntary Resettlement

This policy is applicable in situations involving involuntary taking of land and involuntary restrictions of access to legally designated areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. It promotes participation of displaced people in resettlement planning and implementation, and its key economic objective is to assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement. The policy prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to Bank appraisal of proposed projects.

Table 20: OP 4.12 Involuntary resettlement

Objectives	Operational Principles
To avoid or minimize	1. Assess all viable alternative project designs to

involuntary resettlement and, where this is not feasible, to assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.	avoid, where feasible, or minimize involuntary resettlement.
	2. Through census and socio-economic surveys of the affected population, identify, assess, and address the potential economic and social impacts of the project that are caused by involuntary taking of land (e.g., relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas.
	3. Identify and address impacts also if they result from other activities that are: a) directly and significantly related to the proposed project, b) necessary to achieve its objectives, and c) c) Carried out or planned to be carried out contemporaneously with the project.
	4. Consult project-affected persons, host communities and local nongovernmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms. Pay particular attention to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.
	5. Inform displaced persons of their rights, consult them on options, and provide them with technically and economically feasible resettlement alternatives and needed assistance, including: a) prompt compensation at full replacement cost for loss of assets attributable to the project;

	b) if there is relocation, assistance during relocation, and residential housing, or housing sites, or agricultural sites of equivalent productive potential, as required; c) transitional support and development assistance, such as land preparation, credit facilities, training or job opportunities as required, in addition to compensation measures; d) cash compensation for land when the impact of land acquisition on livelihoods is minor; and e) Provision of civic infrastructure and community services as required.
	6. Give preference to land-based resettlement strategies for displaced persons whose livelihoods are land-based.
	7. For those without formal legal rights to lands or claims to such land that could be recognized under the laws of the country, provide resettlement assistance in lieu of compensation for land to help improve or at least restore their livelihoods.
	8. Disclose draft resettlement plans, including documentation of the consultation process, in a timely manner, before appraisal formally begins, in an accessible place and in a form and language that are understandable to key stakeholders.
	9. Apply the principles described in the involuntary resettlement section of this Table, as applicable and relevant, to subprojects requiring land acquisition.
	10. Implement all relevant resettlement plans before project completion and provide resettlement entitlements before displacement or restriction of access. For projects involving restrictions of access, impose the restrictions in accordance with the timetable in the plan of actions
	11. Assess whether the objectives of the resettlement instrument have been achieved, upon completion of the project, taking a count of the baseline conditions and the results of resettlement monitoring.

Relevance: The activities of the Project may trigger this policy in cases where expansion beyond the existing institute boundaries is inevitable. However, from the current designs of the proposed drawings, this has not been detected.

5.7World Bank General EHS Guidelines for Construction and Decommissioning

These guidelines provides additional, specific guidance on prevention and control of community health and safety impacts that may occur during new project development, at the end of the project life-cycle, or due to expansion or modification of existing project facilities. These guidelines are categorised into three fronts:-

No	EHS Construction and Decommissioning	
1	Environment	- Noise and Vibration - Soil Erosion - Air Quality - Hazardous Materials - Wastewater Discharges - Contaminated Land
2	Occupational Health and Safety	This section provides guidance to the protection of the Workforce with regards to the safety of the worker associated with:- - Over Exertion; - Work in Heights; - Spills and falls; - Struck by Objects; - Dust - Moving Machinery - Confined Spaces and Excavations;
3	Community Health and Safety	This section provides guidance to the protection of the Community with regards to the safety of the worker associated with:- - General Site Hazards; - Disease Prevention; - Traffic Safety;

Relevance:

Construction of the proposed projects are associated with similar challenges whose management is in correspond solutions with the requirements of these guidelines. Such as;

Under Environment, some of the guidelines proposed have made part of the mitigation measures proposed under Chapter 8. These include:-

Noise and Vibration

During construction and decommissioning activities, noise and vibration may be caused by the operation of Equipment among others. It is therefore recommended that:

- Planning with the College such that Greatest Construction noise is undertaken in the day where it will be of least disturbance.

Soil Erosion

Soil erosion may be caused by exposure of soil surfaces to rain and wind during site clearing, earth moving, and excavation activities by:-

- Reducing or preventing erosion by: o Scheduling to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical.

Air Quality

Construction and decommissioning activities may generate emission of fugitive dust caused by a combination of on-site excavation and movement of earth materials and operation of Equipments. Minimization of air quality impacts are very crucial to any construction process.

Solid Waste Non-hazardous:

Solid waste generated at construction and decommissioning sites includes excess fill materials from grading and excavation activities, scrap wood and metals, and small concrete spills.

5.8 Institutional Framework

5.8.1 National Environmental Management Authority (NEMA)

The National Environmental Act provides for the establishment of NEMA as the principal agency responsible for coordination, monitoring and supervision of environmental conservation activities. NEMA is under the Ministry of Water and Environment (MoWE) but has a cross-sectoral mandate to oversee the conduct of ESIAs through issuance of ESIA guidelines, regulations and registration of practitioners. It reviews and approves environmental impact statements (EIS) in consultation with any relevant lead agencies like for such a project.

Relevance

NEMA works with District Environment Officers and local environment committees at local government levels who also undertake inspection, monitoring and enforce compliance on its behalf. In Government ministries, NEMA works with Environmental Liaison Units to ensure that they effectively incorporate environmental issues in their activities, policies and programs.

5.8.2 Ministry of Education and Sports

The Ministry is responsible for providing policy direction, national standards and coordination of all matters concerning national educational institutions. It is also responsible for putting in place policies and initiating laws that ensure sustainable management of all educational institutions in Uganda. The ministry in 2001 formed national council for higher education which is responsible for provision of guidance in the establishment of institutions of higher education and the provision of assurance that quality and relevant education is delivered, by the licensed institutions.

Relevance

As the Ministry in charge of the USDP projects, implementation of the proposed project will directly be supervised by the Ministry and therefore compliance to all the requirements of this Ministry, especially the ones proposed while implementing this project must be adhered to

5.8.3 Ministry of Water and Environment (MoWE)

Ministry of Water and Environment is responsible for ensuring sound environmental management that in turn ensures that there is sufficient water for domestic, agricultural and industrial uses. MoWE has the responsibility for setting national policies and standards, managing and regulating water resources and determining priorities for water development and management.

Its technical arm is the Directorate of Water Resources Management - DWRM which is the lead agency under MoWE responsible for water resources management in Uganda. Its key functions include;

- Provision of water resources related advisory services to the government, private sector and NGOs at the national and local levels;
- Regulation of water resources through issuing water use abstraction ,
- Wastewater discharge permits,
- Wastewater discharge,
- Hydraulic works construction,
- Borehole drilling and easement certificates;
- Water resource monitoring and assessment and Integrated Water Resources Management (IWRM) activities.

Relevance

The Ministry comprises three departments namely Department of Water Resources Monitoring and Assessments, Department of Water Resources Regulation and Department of Water Quality Management. Aspects of water quality will be part of this project.

5.8.4 Ministry of Gender Labour and Social Development

The Ministry's mandate is to empower communities to harness their potential through cultural growth, skills development and labour productivity for sustainable and gender responsive development. The Ministry is key in streamlining matters of gender, child protection and Occupational health and safety of the workers and the public in the project. During construction of this project, the key instrumental departments will be; Department of Occupational Health and Safety, Department of Gender and Equality, and Labour

Relevance

Construction of this project will employ a number of workers whose safety is critical and is over seen by the Department of Occupational Safety of Health.

Regulation of workers will be overseen by the Labour department.

The Department of Gender and Culture requires that employment of workers is gender sensitive and cultural norms of where the project is located are respected.

For instance, the Department of Occupational safety and Health is mandated to ensure compliance to the Occupational Safety and Health Act, 2006 of Uganda. It also undertakes monitoring of construction places to ensure that they are first of all registered as workplaces and workers occupational health through ensuring adequate provision of Personnel Protective Equipment (PPEs) among others.

Relevance

One month before commencement of works, the Contractor must register all the proposed worksites as a workplace with this Department signed by the Commissioner. This department also has safety Inspectors that will inspect the construction site time and again to ensure safety in all aspects for workers. Thus the relevance of the above named institutional framework.

5.8.5 Ministry Of Health

Health governance in Uganda is spearheaded by the MoH and shared with other ministries, health development partners, district leadership, providers (public and private), and representatives of civil society organizations (CSOs). The MoH is tasked with the role and responsibility of delivering on the health goals and objectives of government.

Under decentralization law in Uganda, power, authority and resources are decentralized from the central government directly to the districts. Health services in Uganda are delivered within the framework of decentralization. The local governments are empowered to appoint and deploy public servants, including health workers, within the districts, through the District Service Committees. It has also established regional health facilities (which are Health centres IV). The District Health Officers will be responsible for performing the planning, and supervision functions required of monitoring health services and products in their respective districts.

Relevance

The health centres within Lira Municipality shall be very instrumental in providing medical care to workers that shall sufferer accidents that cannot be treated by the First Aid Box present at site. These health facilities shall also provide information and services related to HIV/AIDS. This ministry is therefore relevant to this project

5.8.6 The National Water and Sewerage Corporation (NWSC)

NWSC is a parastatal that operates and provides water and sewerage services for 23 large urban centres across the Country. NWSC's activities are aimed at expanding service coverage, improving efficiency in service delivery and increasing labour as well as ensuring the quality of water supplied its customers.

Relevance

This institution is relevant considering that the college is currently supplied by national waster which may also be the source of water to the proposed projects scheduled for implementation under the USDP first phase financing. This source of water will be required right from mobilization to operation.

5.8.7 Uganda Police

The Uganda Police under the Police Act, Cap 303, is mandated to keep law and order in Uganda. It is responsible to ensuring security of property and life in the country. Enforcing law and order in the project area, Child protection, and crime control, among others.

Relevance

Lira as a district has a police force that will be responsible for ensuring law and order. While undertaking construction of this project, it is very likely that there could be legal cases such as theft, accidental death of persons. It is recommended that in case of such eventualities, the matter is reported to the near-by Police station.

5.8.8 Local Administration Structures

The proposed project falls within jurisdiction of Lira Municipality of Districts. A district is headed by a Chairman Local Council Five (LC5) who is the political head and Chief Administration Officer, the technical head of district administration. Technical District personnel directly involved with the project include Environmental Officer, District Planner, Community Development Officer, District Director of Health Services, Wetlands Officer, District Water Officer and District Engineer.

Relevance

A number of technical personnel's at the District level will be involved in the operationalization of this project. For will include among others the, District Education Officer since the project is being implemented by MoES and this office directly deemed necessary in overseeing education operations within the District, the District Physical Planner will be involved in the proposed project drawings and lay-out plans, District Community Development Officer, is responsible for managing interactions of the project and the community; District Environment Officer, is there to ensure minimal interruption of the environment, waste management and conservation among others. This institutional frameworks is therefore very necessary to this project.

CHAPTER SIX

6. STAKEHOLDER ENGAGEMENT

6.1 Introduction

In reference to the World Bank guidelines, stakeholder engagement or public consultation and involvement is very critical. It aims at building and maintaining an open and constructive relationship with stakeholders and thereby facilitate and enhance a project's management of its operations, including its environmental and social effects and risks.[12] Therefore, consultative meetings were held with a number of stakeholders depending on their level of involvement or interest in the proposed projects. During this exercise, different stakeholders were consulted with a view of collecting general anticipated impacts that will affect the local community during the implementation of the proposed projects listed under phase 1 and what their view of adequate mitigation measures would be. Therefore, meetings were held with a variety of persons ranging from local leaders to local community neighbouring the college.

This section of the report presents the objectives, process and the outcomes of the stakeholder involvement in the process of this ESIA.

Consultation with relevant stakeholders including regulatory institutions is mandatory. The National Environment Act, CAP 153, EIA regulations (1998) and the Conduct of Environmental Practitioners Regulations (2001), all demand for public consultation.

6.2 Objectives of stakeholder engagement

The primary purpose of the stakeholders' consultations was to provide an overview of the project to the relevant agencies, stakeholders and the affected community in the planning system for the project. This allows most affected by proposed developments – to make an input at both planning application and planning appeal stages.

Project works can bring jobs and economic prosperity to the area, but they can also arouse environmental concerns. It is important; therefore, that the Institutions understand these concerns and, together with the contractor, seek to address them from the outset in an open and accessible way.

Consultation helps local people to understand how the proposed project activities will affect them, and how the developer will operate to the highest possible environmental standards. Adoption of a formal "good neighbour" policy by the selected contractor is essential to win the support of the affected community for the successful project implementation.

In the context of this project, stakeholder consultation aimed to achieve the following objectives:

- To introduce the project to all stakeholders and prepare communities for what will be happening in the near future.

[12] World Bank Group (), Guideline Tools for Pollution Control - Stakeholder Engagement and Grievance Mechanisms, retrieved from http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/UpdatedStakeholderEngagementandGrievanceMechanisms.pdf

- To provide sufficient, accessible and objective information to all stakeholders and interested parties that will assist them to participate in the whole process of the project.
- To get views from stakeholders on anticipated benefits, fears, expectations, opportunities, concerns and suggestions on how best to mitigate them and different aspects of the community in regard to the project.
- To create an enabling environment through which the project will smoothly operate in friendly co-existence with other stakeholders.
- To collect all relevant information about the trends, practices and norms in the project area within which the project will operate.

To achieve the above objectives, our public consultations were guided by Ugandan guidelines despite the lack of regulations for public consultation. The national guidelines for EIA in Uganda require that the public is given full opportunity for involvement and participation throughout the EIA process. People including individuals, or groups of local communities that may be directly affected by this proposed project were therefore, the focus for public involvement as detailed below;

Following the criteria set above, the ESIA team identified various key stakeholders in relevant lead agencies and within the project area. The table below shows the identified relevant stakeholders to this project.

Table 21: Stakeholders involved

CATEGORY	STAKEHOLDER	PURPOSE OF CONSULTATION
Government – National	Ministry of Education, Science, Technology and Sports	• Ascertain whether there are existing guidelines in regards to implementation of the proposed project • Identify laws and policies specific to each body relevant to the project • Involvement of the bodies in project implementation and monitoring
	Occupational Health & Safety Department in Ministry of Gender, Labour & Social Development	
	Uganda Aids Commission	
	Directorate of Education Standards	
	Directorate of Water Resources Management (DWRM)	
	Equal Opportunities Commission;	
	Ministry of Gender, Labour & Social Development – Department of occupational Health and Safety;	
Government – Local	District Technical and Political Team; Municipal and Town Councils	• Collect all relevant information about the trends, practices and norms in the project area within which the project will operate • Discuss potential impacts and devise ways of mitigating them

Institutions	Board of Directors Administration Teaching and Non-teaching staff Students	
Community	Neighbours to the institutes	• Find out community expectation of the proposed project; • Encouragecommunity participation and involvement in project implementation; • Seek community based views on mitigation of the anticipated impacts; • Create a sense of ownership/project acceptability;

Public consultation was critical in assisting the team to understand the local conditions and highlighting the socio-economic and environmental concerns/impacts and feasible mitigation measures. Different modes of consultations were carried out and these include among others;

- Community meetings
- One on one meetings

The consultation process involved the use of various questions that are classified in the table below, so as to have a more detailed and conclusive encounter.

Table 22: Group of questions administered

WHAT	• Impacts (positive and negative, cumulative, intangible, legacy) • Mitigation measures • Implementation arrangements
WHO	• Project affected people • Indirectly affected people • Beneficiaries • Interest groups • NGOs/CSOs (local and international) • Local governments
WHEN	• When impacts are identified (mostly during preparation) and continued during implementation, as agreed during preparation • Part of preparation of safeguard instruments • When design changes lead to new impacts (implementation) • For complex projects, throughout implementation
WHERE	• Close to stakeholders • Safe place • Multiple locations for large projects • All directly affected stakeholders should have an opportunity to attend
HOW	• Focus groups • Household surveys • Electronic consultations • Establish project mechanisms to receive comments and suggestions from stakeholders

	• Document and disseminate
WHY	• Help to identify opportunities and risks • Increase project ownership and sustainability
FOLLOW UP	• Document and disseminate results to stakeholders • Reflect results in project documentation

6.3 Consultation findings

The institution and the entire public participated actively through organised meetings and in some urgent cases, personal or one on one meetings were held. The methods employed for different engaements included:-[13]

Table 23: Consultation with Lead agencies – One on One method

Organization	Attendance	Key Out comes	Type of Engagement
Uganda Aids Commission UAC	Oola Eugene- Head Planning Sarah Khanakwa- Head Mobilisation Quintu Rwotoyera- OGA Charles Otai- M&E	• UAC will provide oversight of the HIV&AIDS program of the project, supervise and participate in quality assurance meetings through quarterly performance review meetings organized and facilitated by the construction company. • There is need to commence the HIV programs early especially mobilizing communities for sensitization and awareness before construction activities commence. • The contractor should consult all stakeholders involved in HIV awareness and not just UAC. There should also be a comprehensive HIV & AIDS program. • HIV awareness must also be conducted in the communities, the college students and staff, and not to the workers only. • Monitor and make a report	- Focused Group Discussion

[13] IESO, Denmark, November 29,2012, Stakeholder Engagement Process

		on the measures undertaken showing how they have been implemented in line with the National Strategic plan. • Abide by the minimum standards package. The most important point is that when the project is completed, the community or the college personnel's should not be worse off from the time the project commenced.	
Ministry Gender	Miss Kyomukama Maggie	• Appropriate Personal protective gear should be provided to all workers and visitors accessing sites. • Fully equipped First Aid facilities should be provided at all sites and a trained personnel employed to provide such services. • Workers should be provided with meals and drinking water, adequate sanitary facilities, and should work for 8hours but at most 12 hrs. • Appropriate and adequate signage should be placed in and around the construction site • A comprehensive safety and management plan /safe working plan should be developed and implemented. • All the construction sites must be registered as workplaces one month prior to opening up; • All equipment must be submitted to this ministry for assessment such that hazardous equipment such as	• One on one meeting

		cranes are licensed before operation; • Gender mainstreaming should be achieved on this project. Women should be considered and women friendly facilities erected on site.	
MoES – USDP	Mr. Solomon Kaigia - Quantity Surveyor / Chairman Mr. Alex Winyi - Environmental and Social Safeguards Specialist	• The consultant shall undertake screening to determine the level of assessment required for the proposed developments in all the CoE and VTIs; • Attention should also be paid to the comments previously raised. • Consultation of the PAD and the ESMF is also very paramount; • Attention should be paid to all the Safeguard policies;	○ One on One Meeting
DWRM	David Muhairwe - Water Officer / Records	• Construction activities should not contaminate underground water; • There is no major water body to be directly impacted on, however this directorate should be informed; • In case of ground water harvesting, drilling should be constructed by a registered driller and a Ground Water Abstraction Permit must be sought from this office.	-
Lira District	Municipal Environment Officer and Physical Planner	• The project should be screened to find out whether it requires a detailed assessment or a project brief due to the sensitivity of some areas. • Restoration of cut down trees during project implementation should be paramount in order to conserve the environment • There should be proper waste management system. She further urged the project to involve all	○ Focused Group Discussion

		the relevant stakeholders especially leaders and the community. • All borrow areas should be restored to near their original state after use • Involve the vulnerable people around the project area so that they do not feel discriminated • During job recruitment, first priority should be given to community especially around the institute • AIDS should be handled with care because the project is in an institute with a lot of youths; • A program should be developed so that the students at the institute learn from the construction project.	
	Local Community neighbouring the institute	• Employment opportunities • Opportunities for knowledge transfer to our local person; • Fear of spread of HIV/AIDs due to influx of construction workers; • Possibilities of early girl pregnancies • Strom water management has been and is still an outstanding issue. A lot of water sprawls from the college to the neighboring community; • Engagement of local workers should be emphasized by contracts; • Always engage LC leaders • Dust generation • Noise especially during night hours, while undertaking construction • Theft, of property; and	Mass Meeting with the community

		• Opportunity to make money through selling of construction material or food to workers.	

6.4 Aspects to consider during project implementation

6.4.1 Gender Mainstreaming and Responsibility to other vulnerable groups

Gender mainstreaming within all operations of the contractor during construction activities will be undertaken. The purpose of the mainstreaming process will be to address injustice and imbalances suffered by women, children, the elderly and the sick in road development projects. The actions of this plan will seek to guarantee fair and equitable access to employment opportunities by women and other vulnerable groups, improve access and safety to homes and social facilities for vulnerable people in the course of construction works.

The following measures will be pursued:

- Design a gender policy
- Ensure "positive discrimination" in job allocation to road construction workers whereby women will be given tasks they do best, based on their capabilities.
- Workplace environment including tools and fixtures wilt be gender-friendly.
- Construction labour will be inducted on sexual harassments
- Separate water borne toilets for men and women to be constructed for all quarry workers, a similar arrangement will be made for work sites.
- Children below 18 years will not be recruited, where age cannot be ascertained, a Letter from LCs shall be requested.

6.4.2 Managing Community Relations

This project is intended to benefit the immediate neighbouring communities. Construction operations will be designed in such a way so as to benefit positively people in these communities. The project will work towards a harmonious relationship with all groups of people in the communities. The following actions will be actively followed to enhance social relations with all groups within the communities.

- Employ local Labour through secondment from Local Council Leaders
- The construction contractor will undertake community sensitization forums in communities surrounding the institutes.
- An information office will be commissioned within the project office and field posts established at the institute.
- Regular interface with Local community Leaders will be maintained spearheaded by the Environmental Management Team;
- A complaints register wilt be maintained at all site offices.
- Regular radio talk shows and bulletins will be made to inform communities on current operations.

6.5 Stakeholder Participation Plan during project implementation

During project implementation activities, it is imperative that different key stakeholders continue actively participating in the project. These Multi-Stakeholder Engagement Plans are important due to the following reasons:-[14]

- Produce solutions to the complex situations;
- Keep the public aware of the ongoing construction activities; and
- Collect possible complaints from the affected persons and produce possible solutions.

All the stakeholders that participated at the consultation stage shall be mantained during both construction and operation such that continuos monitoring among other reasons is achieved.

6.5.1.1 Public Participation Plan

The institution and the entire public will participate actively through organised meetings and in some urgent cases, personal or one on one meetings will be held. These methods of enegagement will be held depending on the concern At hand that requires to be addressed. -[15]

a. One-on-one Engagement

Stakeholders will be engaged individually, either formally or informally. In formal engagements, a one on one discussion will be used for information sharing and consultation where emergencies or incidents have occurred as works proceed. Informal procedures are flexible and sometimes include ad-hoc conversations that can allow you to gather additional information from stakeholders.

These one on one engagements will be done in situations of consulting individual local government officials like the District environment officer or when attending to an affected person. This forum will work hand in hand with the Grievance Committees that shall be set up.

b. Small Group Discussions

Generally used to engage individuals or a very small group (two or three individuals), shall be convened in situations where one on one engagement will not be adequate. It will involve 3 to 4 individuals brought together to either make a decision forward, or to resolve a much bigger situation.

This public participation strategy could include representatives from different groups brought together to resolve a situation such as a representative from:-

- The Institute administration,
- The District representatives
- The Contractor;
- USDP

c. Focus/working Group Engagements (FGE)

FGE are planned discussion in small (4 to 12 members) group of stakeholders facilitated by a skilled moderator. It is designed to obtain information about preferences and opinions in a relaxed, non-threatening environment. The topic is

[14] UNDP, November 2006, Multi – Stakeholder Engagement Processes, A UNDP Capacity Development Resources.
[15] IESO, Denmark, November 29,2012, Stakeholder Engagement Process

introduced and, in the ensuing discussion, group members influence each other by responding to ideas and comments. The moderator may use some predetermined questions as prompts to encourage discussion or to return the conversation to the intended focus of the discussion.

These Focused engagements can also be instituted by the members from government bodies (in this case USDP). They bring together diverse members of the public who are given information relevant to the issue under question. The session can include small and large group priority-setting exercises based on actual examples of technologies under consideration for assessment by local and national bodies.

d. Conferences / Workshops

Meetings or conferences will be held in cases where discussion of a topic or topics is to be passes on, especially where participants form both an audience and make presentations. These will be conducted especially during sensitization or awareness creation campaigns. Topics that shall be conducted will include:-Safety, HIV/AIDS awareness, Gender, Sexual Harassment, environmental protection.

6.5.2 Other aspects to be considered during the Operational Phase

In addition to gender mainstreaming and managing community relations, other concerns that will continue to require stakeholder engagements include: Monitoring and maintenance of the green field and the landscaping undertaken;

- Waste management strategies to ensure the institute is kept clean;
- Maintenance of all the drainage channels
- HIV/AIDS sensitization and awareness creation;
- Required improvement on the teaching facilities curriculum among others
- Continuous collaboration of the neighborhood/ neighboring community

6.5.3 Reporting

In addition to documenting the public consultation process, outcomes and addressing comments received, it was important to report results of these activities to stakeholders. It is expected that during review of the ESIA by NEMA, copies of the report including results of public consultation will be availed the public and stakeholders at publicised locations.

The meetings were aimed at obtaining stakeholder comments and views on what should be included in this assessment report. This section of the report presents the objectives, process and the outcomes of the stakeholder involvement undertaken. Consultation with key stakeholders is a continuous process that will be carried out throughout the EIA period. During the study, stakeholder analysis exercise was undertaken to identify Interested and Affected Parties (I&APs) to the project.

CHAPTER SEVEN

7. ANALYSIS OFALTERNATIVES

7.1 Introduction

According to World Bank group, alternative analysis in Environmental Assessments process informs on the viability of the project with regards to environmental friendly and socially acceptable project options and therefore it is one of the most important contributions EA can make to improving decision-making.[16] While undertaking project alternative analysis, it is important to ensure that the best selected option meets project objectives, resource requirements for short-listed technologies, and broad environmental planning and economic considerations.[17]

Therefore, in this assessment, analysis of alternatives has concentrated on the two major options which include proposed project implementation or the do nothing scenario.

It is important to note that development of this project is scaled right from the bigger goal of Uganda's vision of 2040. According to this vision, one of the strategic bottlenecks that has constrained Uganda's development is the continued accumulation of ***under-developed human resources. In abid to address this bottlenecks,*** Uganda Vision 2040 identified " Science and Technology parks in each regional city" and "Accelerate government reforms in the education system and the curriculum to obtain a globally competitive human resource with skills relevant to the development paradigm" as key core projects that needed to be implemented.

In response to this, Government of Uganda through Ministry of Education and Sports, launched a BTVET Strategic Plan 2012/13 to 2021/22 entitled "Skilling Uganda". This plan underscored a paradigm shift in skills development in the country. The plan emphasized creating employable skills and competencies relevant to the labour market rather than educational certificates as was before. The proposed project obtained funding from World Bank, and under this project, 4 regional technical institutes covering key priority sectors of the economy i.e.[18] Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040, were selected to be upgraded in to Centres of Excellence (CoEs) of which UTC- Lira is among.

7.2 Proposed Project – Action Option

Considering the brief introduction above, justifies that if the project is implemented then the planned benefits that would arise from its implementation would be realised. Its implementation would cause some adverse impacts on the environment, however, with adequate mitigation measures, these impacts would be minimised, as discussed in the chapters eight below. However, most of the benefits accrued from implementing the above named project will include:-

[16] Environment Department – (December 1996) The World BankEnvironmental Assessment Source Book, Analysis of Alternatives in Environmental Assessment retrieved from http://siteresources.worldbank.org/INTSAFEPOL/1142947-1116495579739/20507390/Update17AnalysisOfAlternativesInEADecember1996.pdf

[17] National Planning Authority (2012) - Uganda Vision, 2040, retrieved from http://npa.ug/wp-content/themes/npatheme/documents/vision2040.pdf

[18] The Republic of Uganda, Ministry of Education and Sports (2012) – Uganda Skills development Project. Retrieved from http://www.education.go.ug/

- Gearing to achieve the Governments major goal of A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years;
- Support to skill development, especially the contribution at improving quality and relevance of skills development and enhancing equity;
- The UTC-Lira to become a CoE with a focus on the manufacturing sector;
- Following the rigorous discussions with the stakeholders and the management of the institutions including the Twinning Partner, USDP and the management of UTC - Lira.
- Promotion of labour market/industry driven programming;
- Creation of a learner centered institution;
- Basic Infrastructure supporting other upcoming developments;
- Implementation strategy: development without significant impact on the normal training learning operations of the College;
- Budgetary Ceilings and fund availability;

It is important to note that if this option is considered, two possibilities are likely to happen, i.e;

- Redevelopment by renovating the existing facilities;
- Redevelopment by constructing new structures and rehabilitating the existing infrastructure.

7.3 The "No- Project" Option

Analysis of the "no project option" as an alternative is an important component of the EIA. It provides an environmental baseline against which impacts of the proposed action can be compared. "No Project" simply implies not doing anything at all, and leaving the conditions as is "maintaining the status Quo". Leaving the situation as is, therefore means that the intended goal of achieving the vision Uganda 20140, and justifications for skilling Uganda together with the required financing from the World Bank will not be required. This option therefore, impedes the Government of Uganda goal, which prioritised this project for implementation in the first place.

This option also does not address the objectives of the proposed program which is a key recommendation for project alternatives analysis by the World Bank. However, the only benefits derived from this option is the maintained ecological balance of the various ecosystems and no social interruption of the colleges activities and the neighbouring activities since there is no / minimal interference.

7.4 Comparative Analysis / Multi Criteria Analysis

In order to appreciate the benefits accrued in implementing the proposed redevelopments in UTC – Lira, it is important to undertake an MCA of the two outstanding options of:-

- Redevelopment by implementing the proposed new projects;
- Redevelopment by undertaking renovation of existing facilities only;
- Do nothing scenario

It is also important to note that the major objective of upgrading UTC- Lira into a Centre of Excellence is to be met with the variables considered for each alternative.

The three options were analysed against each other using the Multi Criteria Analysis, and considering the variable used each impact was scored against each environmental and social component to be affected or which option had a higher possibilities of benefits accrued to them. The significance ratings of the potential environmental and social impacts of the project were assigned values. For each option, the significance rating values used in scoring the negative impacts were summed up, and the total scores obtained as shown under. On a scale of 1 to 3, for impact likelihood, severity, and duration in the environment, the variable is scored and then the total is provided.

Table 24: Ranking and Rating scores used during impact analysis of variables

A. *Probability of Impact*		
Improbable	< 40% chance of occurring.	3
Possible	40% 90% chance of occurring.	2
Definite	> 90% chance of occurring.	1
B. *Intensity– the magnitude or size of the impact*		
Low	Site-specific and wider natural and/or social functions and processes are negligibly altered.	3
Medium	Site-specific and wider natural and/or social functions and processes continue albeit in a modified way.	2
High	Site-specific and wider natural and/or social functions or processes are severely altered.	1
C. *Duration– the time frame for which the impact will be experienced*		
Short-term	For the duration of project activities/up to 2 years	3
Medium-term	2 to 15 years	2
Long-term	More than 15 years	1

The scoring per options where therefore considered as follows:-

Table 25: Total score and rating

Combined Score (A+B+C)	8 – 9	7	6	5	3 – 4
Consequence Rating	Very low/Negligible	Low/Minor	Medium/minor-moderate	High	Very high/Major

A comparison of the total score gives the likely choices regarding the preferred options. The worst-case scores 1 while the better (no impact) case scores 3.

Table 26: MCA for the proposed options

No/S	Variables	Do Nothing	Renovation of Existing Facilities	Project Implementation
1	Environmental disturbance (Noise, dust)	7	5	4
2	Increased Enrolment	3	6	9
3	Improve on service delivery (use of modified technology)	3	5	8
4	Social disruption of community	8	6	4

5	Cost of Implementation	8	6	3
6	Return on Investment	3	6	9
	Grand Total	**32**	**34**	**37**

7.5 Discussion

From the assessment presented above, it is clear that implementing the proposed project is associated with a number of benefits and among them is achieving the greater intended goal for which this project was developed. It important to note that renovation of the college without implementing the proposed projects will improve the services of the college to a smaller scale but will not meet the major objective of this project, which is skilling Uganda by 2040.

Therefore, the analysis described below concentrated on either implementing the proposed projects that meets the intended objective of the program, or not which is "The Do Nothing Scenario".

Environmentally:- Upgrading of this college will be associated with a number of environmental impacts resulting from massive excavation works, within the site and from the sites where marram will be sought, which in turn could result into contamination of sensitive environmental receptors such as wetlands within the vicinity of the institute or the material source sites.

It is important to note that this will be an impact felt once while upgrading the college, and implementation of adequate mitigation measures among which will be restoration activities will reduce the impact of this upgrade to almost none.

The "Do Nothing Scenario" however, is associated with continuous impact on the environment while undertaking maintenance works, of say the roads within the institutions and thus the intensity of this impact will eventually be magnified in way that restoration may be costly and unaffordable for the college to implement. It is therefore recommended that upgrading works of the college into a centre of excellence be undertaken.

Socially:- upgrading works will greatly distrubilise the student body within the institution and affect the community from where the materials will be sought. Some of the anticipated impact from the social point of view include accidents while ferrying material, theft due to influx of workers, sexual immorality that will lead to increased spread of HIV. Therefore implementation of mitigation measures elaborated in Chapter 8 below should minimise or nullify these impacts.

However, the upgrade is also associated with massive benefits such as source of income from employment, sell of material among others that will not be felt with the Do Nothing Scenario. Much as the "Do Nothing scenario" does not present that above negative impacts, it also will not provide the benefits associated with the upgrade, among which is the major intended goal of skilling Uganda.

Economically: - Upgrading works are highly economically intensive right from project conceptualization to implementation and operation. However this cost will be undertaken while upgrading the college into a centre of excellence, as compared to the Do nothing scenario which is associated within minimal continuous costs of renovation and maintenance works. It is however important to note that UTC-Lira is

unable to facilitate these upgrading works and therefore GoU sought funds from the World Bank under the USDP financing to address this gap. Therefore these minimal continuous costs are unable to improve on the functionality and workability of the institute thus leaving the college a run-down state. Upgrading works will also increase return on investment which is not possible with the Do Nothing Scenario. Hence making upgrading of the college economically viable.

7.6 Conclusion:

From the alternative analysis undertaken, upgrading the college implies that the proposed project can be implemented with minimum disturbance to both the Environmental and Social set-up of where the project is implemented, at the same time benefit the neighbouring community through employment opportunities, among others.

The Do nothing Scenario, however, much as it will have very minimal impact on the current environment, it will leave the institute in a very dilapidated state thus unable to meet the objective of Skilling Uganda by 2040, that can only be achieved if it is transformed into a Centre of Excellence.

Renovation is one of the option that was considered, however as earlier disused under chapter two, the current facilities are deteriorating and much as they can be renovated, are unable to accommodate a large number of students. Most of the exciting facilities were constructed in the 1950s, when Uganda's population was still small and not so many people were accessing the colleges for Diploma courses, as compared today. If the overall objective is to be met, the existing facilities have to be complemented by new and much bigger facilities with better technology.

CHAPTER EIGHT

8. PROJECT IMPACTS AND MITIGATION

8.1 Introduction

An impact is considered to be any change to a resource or receptor brought about by the presence of a Project component or by the execution of a Project related activity.

This part of the report addresses potential impacts associated with the proposed project and delivers measures for both mitigating (i.e. avoidance, reduction, or restoration of) negative impacts and enhancing (i.e. improving) the positive effects of the project.

The major positive impacts of the proposed project are mainly the Educational and economic benefits that can be acquired at the national, regional and local levels. On the other hand, the major adverse impacts arise from generation of solid wastes, wastewater and air pollutants.

Cost-effective and environmentally sustainable techniques that can mitigate the adverse impacts and enhance the positive effects are proposed. Emphasis is given in selection of best available techniques (BAT) and practices for preventing and reducing discharge of processed wastes to the environment.

Special consideration is also given to the sustainability of the proposed project through integration of best available pollution prevention technique (e.g. reusing and recycling of process wastes and by-products) without compromising the economic and social benefits of the project.

8.2 Detailed assessment of impacts

The ESIA was undertaken by following a systematic process that predicts and evaluates the impacts the Project could have on physical, biological, socioeconomic (including social, economic and health) resources and receptors and identifies measures that the Project will take to avoid, minimize/reduce, mitigate, offset, or compensate for adverse impacts; and to enhance positive impacts where practicable.

This process includes the definition of the Area of Influence of the Project, description of the baseline conditions, and application of an appropriate impact assessment methodology.

8.3 Defining the Area of Influence (AoI)

The extent of the effect of a project activity on a particular physical, biological or social resource will vary and is termed the Area of Influence (AoI).

Specifically, the AoI encompasses the following:

- The area likely to be affected by: the Project, Project activities, and Project facilities (direct AoI); and unplanned but predictable development caused by the Project that may occur later or at a different location (indirect AoI);

- Associated facilities, which are facilities that are not part of the project but are required and would not have been constructed or expanded if the Project did not exist and without which the Project would not be viable; and
- Cumulative impacts that result from the incremental impact on areas or resources directly impacted by the Project from other existing, planned or reasonably defined developments.

The impact assessment considers that the AoI will vary depending on the type of effect, but in each case it is defined to include the entire Project area where it is likely that significant impacts could result. A conservative but reasonable approach is taken in defining the AoI.

8.4Impact Matrix

To systematically evaluate the impacts associated with this proposed project, an impact matrix is shown in the Table below, has been constructed as per the categories identified, and considers a "no mitigation scenario". A discussion of these impacts follows, including a mention of receptors and their sensitivity, a description in terms of extent, impact intensity, persistence, probability of occurrence and proposed mitigation measures, as well as a mention of the residual impact after mitigation.

An Environmental Management Plan has been proposed in the Chapter below to be implemented by the administration of the institutes and other lead agencies.

Below is a matrix for evaluation of the negative impacts following the criteria above

Activity/Impact	Extent	Magnitude	Probability	Persistence	Significance without mitigation	Significance with Mitigation
Construction Phase						
Dust and noise generation	Local	High	Definite	Long term	Substantial	Minor
Loss vegetation	Site	High	Definite	Long term	Moderate	Minor
Impact from excavated soils	Local	High	Medium	Temporary	Moderate	Minor
Effects of generated solid waste including debris	Local	High	High	Temporary	Moderate and Large	minor
Risk of contaminatio	Local	Medium	Medium	Long term	Moderate	Minor

n of soils or surface water					and Large	
Injury to workers on site	Site	Medium	High	Long term	Severe	Minor
Impacts on public health	Local	High	Medium	Temporary	Moderate or Large	Minor
Social impact	Local	High	Medium	Temporary	Moderate or Large	Minor
Impacts from poor solid waste management	Local	High	High	Temporary	Large or Very Large	minor
Pollution of ground &surface water	Local	medium	Low	Long term	Large or Very Large	Minor

8.5 Potential Positive Impacts of the Project

8.5.1 Income to material/ equipment suppliers and contractors

The proposed project will necessitate procurement of equipment, construction materials and services, providing income to suppliers and contractors. This is a positive but short-term and reversible impact. Considering that construction labour would be local, national or international, this impact has local, national and international spatial extent.

Conscious or unwitting purchase of these materials from unlicensed operations would indirectly support, encourage or promote environmental degradation and possibly causing medium- to long-term negative impacts. It should therefore be a contractual obligation for contractors to procure construction materials from legitimate or licensed sources (as advised by local authorities).

Enhancement measures

- Site restoration for naturally occurring materials e.g sand borrow pits should utilize native vegetation species and replanting undertaken during rainy season to ensure high re-vegetation success.

8.5.2 Employment

The project would be able to employ significant number of staff from the locality during the construction as well as operation phase thereby contributing to the social and economic wellbeing of the community.

The project will be an opportunity for especially the youth of Liraby lightening the brunt of unemployment in the town to some extent. In addition to this long term employment opportunity, the construction stage of the project will have a short term employment opportunity.

Furthermore, the project is also expected to have interactions with local small and micro enterprises, product dealers and service providers through its provision of access for by products like hide and skin, organic fertilizer and animals' feed. In view of this fact, indirect employment to be created from the project can be considered indispensable.

Enhancement measures

Special consideration is given to enhancement of the positive effects of the project by maximizing the distribution of this employment related project benefits. Hiring professionals and service providers will be based on merits and yet on competitive base in order to get quality technical workers. However, the project will provide priority to the local community while hiring for those positions that do not requiring especial skill.

As there will be high demand for daily labourers, especially during construction phase of the project, it will be twofold advantages to hire labourers from local people. First, the project managers will reduce time of searching for labourers and save the money that is needed for transportation of these labourers to project site and second, it will enhance social acceptability of the project in general.

In addition to the above proposed measures that can enhance the direct employment benefits, procuring by product processing enterprises from local sources to the maximum extent possible also enhances the indirect employment opportunity of the project.

8.6 Potential Negative Impacts of the proposed Project

8.6.1 Construction Phase

8.6.1.1 Sources and Transportation of Construction Materials

The sites for sources of material will have a number of potential negative impacts including: dust at sites; siltation and oil pollution of down-stream areas; inaccessibility of land for cultivation or grazing during operation of site; noise from the site; among others.

Impact evaluation: Although never compensated, staining of trade commodities in shops (especially foodstuffs: salt, sugar, flour, etc) with dust translates into a financial loss for local business owners. Excessive dust in dwellings poses a short-term health impact. Unless speeds are controlled, material haulage poses a risk of road accidents.

Risk of this *potential* impact actually occurring is high especially since the proposed projects are located in UTC-Lira which is geographically situated in a busy area. Material haulage will be short-term ceasing with completion of construction activities but secondary effects (if they occurred) such as accidents (hence disability or death)

have negative, long-term and possibly irreversible socio-economic impact. If mitigation recommendations are not implemented, likelihood of impact occurring is medium but impact severity high especially when accidents involve loss of live.

Impact Significance

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation:

- All locally situated sources of construction material shall be subject to Separate EIAs that will need to be approved by NEMA.
- Possible material sources should be sought next to the college to reduce on possibilities of exposing the associated impact to a bigger community;
- Suppress dust by watering wherever necessary especially through busy centers;
- Contractor should erect temporary signs along haulage routes used by ferrying trucks.
- Construction crews should take care to watch out for and avoid animals accidents along the haulage routes;
- Surplus soil materials (overburden) from the excavations should be stockpiled at sources of material to be used for restoration after construction of the proposed projects under phase 1.
- Opened up access road to material sources such as borrow areas, if not needed by local community should be scarified and re-vegetated.
- Site restoration should utilize native vegetation species and replanting undertaken during rainy season to ensure high re-vegetation success.
- In addition to that, all agreements/contracts shall be signed for material sourcing sites and these shall be signed between the contractor and the land lord. These agreements shall have a clause on environmental restoration.
- To avoid opening new ones, existing material sources can be used if meeting required material specifications.
- Contractor's drivers should be trained on the required driving speed through

sensitive community set-ups.
Note: It's the responsibility of the contractor to locate a material source and depending on its environmental and social sensitivity, an additional assessment may be required such as borrow areas.

8.6.1.2Occupational health safety (OHS) risks

Proposed works involve a number of activities that have the following occupational health and safety risks with potential to cause serious injuries to workers:

- Burns;
- Falling from Heights;
- Cuts and Electrocution; as well as,
- Noise and body vibration from equipment, among others

Considering the proposed developments to be put up, the proposed project will greatly be associated with falling at height or being hit by falling construction debris. Both these hazards are very dangerous and in some instances could be fatal. Construction noise aswell is a major source of environmental noise pollution and a cluster of equipment at construction site can produce a steady roar throughout the day.

Ugandan occupational safety guidelines require that workers exposed to noise level greater than 85 dB (A) for a duration of more than 8 hours per day wear hearing protection. Related OHS safeguards are comprised in (Uganda's) Occupational Safety & Health Act (2006) and Employment Act, 2006.

Lack of hand wash water and *sanitary* toilet facilities at work sites could also pose considerable inconvenience and health risk to workers.

OHS impacts will potentially occur at any point during project implementation and operation. Some impacts could be accidents that are minor while others could be grave leading to permanent disability or loss of life of construction workers.

Impact evaluation

Duration of the impact will be short-term occurring only during the construction phase, but the magnitude in terms of potential number of workers affected would be classified as major. The extent of the impact will be local or national depending on origin of construction workers. The likelihood of the impact occurring is high considering the usually low level of safety at construction sites in Uganda and receptor sensitivity is high considering the potentially grave consequences of occupational accidents. Significance of this impact is therefore predicted to be Large or Very Large.

Impact significance:

Environment	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major

	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Impact mitigation

- The Contractor shall provide all workers with requisite protective gear for example, safety belts for working at height,
- The Contractor shall provide "No smoking" signs in high risk areas prone to fire hazards e.g. near fuel tanks;
- Orient all construction workers on safe work practices and guidelines and ensure the workers adhere to the EHS Guidelines
- Training should be conducted for the workforce on how to prevent and manage incidences/accidents and accident log book should be maintained at all work sites
- Location of First Aid kits should be known and accessible to all workers without hindrance or obstruction.
- An emergency procedure should be visibly placed on site during project implementation
- The Contractor shall provide signage reminding workers of use of PPE at appropriate locations within the site.
- Installation of Fire extinguishers at strategic locations to cater for any fire out brakes.
- Hearing protection of single number rating (SNR) of 37 dBA will adequately protect workers from machine noise as high as 118 dBC. BS EN 458:2004 recommends selecting a hearing protector that reduces noise exposure to at least below 85 dBA (ideally between 80 and 75 dBA) at the ear.

8.6.1.3 Public/Community Health and Safety including crime, HIV/AIDS, Child Abuse / Defilement and Early age Pregnancies, family breakages.

In local communities, construction workers are usually lionised as richer with ready income to spend. This together with influx of workers, typically young males seeking construction job opportunities could lead to an increase in social pathologies such as alcohol or illicit drug abuse and prostitution.

There are also fears regarding the potential occurrence of child abuse and early age pregnancies. There are possibilities of college students dodging class so that they can

either get involved in the construction works or get involved sexually with the construction workers which disrupts the social set-up of the college.

This was premised on the fact that, during construction phase, because workers will have disposable income earned from being employed on the project, they might engage in sexual acts with under age or college children particularly the girl child from either within or outside the college. This may result in early age pregnancies and an increase in number of girl children school drop-outs. This may psychologically disorient the life of the child and her family. Given that the project employees shall be recruited from both within the project area and from different parts of the country with different cultural and sexual backgrounds, it is possible that some of them introduce foreign sexual behaviours in the project area such as having sex with boys (molestation).

Impact evaluation: Vices such as drug abuse, crime, child abuse and prostitution would affect social coherence and security in project communities maligning the image and intent of an otherwise good project.

Unless adequate sensitisation of all workers is undertaken by contractor, likelihood of the impact occurring is medium (considering some level of awareness among general populace). Duration of above-mentioned social ills will be short-term ending with completion of the project but associated social and health effects are long-term and irreversible. The risk HIV/AIDS and early age pregnancy makes this impact of high severity resulting in an overall significance level of *major*.

Impact significance:

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation:

- The contractor should actively involve and consult the area local leaders (LCs), technical college staff in recruitment of the local workforce in order to ensure that the people hired have no criminal records.

- The contractor should develop and implement a strict employment code of conduct. During induction of employees, the contractor should emphasize that molestation and sexual harassment is a criminal offence punishable by courts of law. A contractor who tries to shield or cover up for the employee caught in the act will equally be prosecuted, according to the penal code Act, 1950.
- The contractor should develop and implement an Anti-Retaliation policy; that prohibits any form of retaliation against an employee who in good faith; makes a complaint, raises a concern, provides information or otherwise assists in an investigation or proceeding regarding any conduct that he or she reasonably believes to be in violation of the contractor's Code of Conduct or policies, or applicable laws, rules or regulations. This policy should be designed in such a way as to ensure that all employees feel comfortable speaking up when they see or suspect illegal or unethical conduct without fear of retaliation. It should also encourage all employees to cooperate with the project contractor in the internal investigation of any matter by providing honest, truthful and complete information without fear of retaliation.
- The contractor should work closely with the municipal council, local NGOs, and/or faith based organizations, and local communities involved in HIV/AIDS and reproductive health.
- The contractor's code of conduct should prohibit sexual relationships with married women and underage girls, highlighting that it is a criminal and punishable in the courts of Uganda.
- Contractor should provide condoms and HIV/AIDS posters to workers in privately convenient places such as toilets on the site.
- The contractor should collaborate with police to reduce criminal activities; in addition to developing and implementing a crime management plan.
- As a contractual obligation, the contractor should have an HIV/AIDS Policy and action plan to implement it for this project.
- Continuous HIV/AIDS and other STDs awareness campaigns for workers and the community members should be organized including; extensive sensitization, Voluntary Counseling and testing services provide to workers through posters, flyers or weekly sensitization sessions.

8.6.1.4Infrastructure and Services

The presence of works within the institute could have a negative impact on the local social amenities such as water, electricity, access roads, and classes among other. This impact will be felt most during active terms of the college. Currently, the college is served by dilapidated facilities such as toilets, should the disruption of water supply be affected, the college will have a poor hygienic conditions associated with disease.

Impact evaluation: While there might be a temporary pressure on these amenities in the short term during construction stage, there may also be a positive impact on infrastructure development in the longer term.

Environment	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major

	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- Construction works should be done under close supervision of a technical college staff, who are well versed with the college infrastructure network to ensure the distributing lines are not affected;
- Provision of alternatives when undertaking modification works, of any structure still under use. For example water, sanitary facilities, among others.
- Works shall ensure to avoid electricity poles, among others.

8.6.1.5Traffic and Transportation

Site clearing and grading could have an impact on local transport routes and footpaths and access to the area. Transport of facilities, equipment and machinery during the construction phase may impact on local transport and access. The presence of construction and operational workers in the area and their use of local buses and taxis, may impact on access to local transport.

Transportation of waste from the site and materials and equipment to the Project area may impact on local transport and access.

Decommissioning activities could also impact local transport and access.

Impact Significance

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large

	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation

- To adequately manage the construction Traffic, the Contractor will Prepare and Implement a Traffic and Transport Management Plan. A Traffic Management Plan has been proposed and appended to this report, however this should be improved upon at project implementation.
- Alternative access routes should be constructed leading only to the site in-order to avoid congestion. These should however be reinstated once construction works are completed.
- Adequate Signs, speed humps and flag personnel's shall be instituted in the construction process in order to manage traffic on the proposed access routes to guide users and to prevent accidents.
- Adequate and frequent sensitization of the workers, drivers and the institute road users like the students shall all be sensitized regularly on the Road safety measures and risks associated with the construction traffic.

8.6.1.6 Loss of vegetation cover

Construction activities and its auxiliary components will have an impact on the existing vegetation. Considering the proposed projects and the zoning of the proposed project, additional land take is going to be required. Much as the proposed developments are to be set-up to enhance the existing facilities such as the workshop, all the proposed projects are new. Therefore, there establishment will require loss of vegetation as the site is cleared to pave way to the construction of the proposed project. Potential impacts on flora include those associated with the loss of vegetative habitats and increase in natural instability of plant communities.

Similarly, physical site disturbance and noise from construction activities will cause temporary displacement of most fauna from the vicinity of the construction site and adjacent areas. The likelihood of the impact occurring is high and duration of the impact will be medium-term since land take would be permanent. However, due to the less ecological significance of the existing environment, the construction phase is expected to have minimum impact on flora and fauna.

Impact Significance

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large

	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

Though the impact on flora and fauna is minimal during the construction activities, the following measures are recommended:

- Limit clearing and soil disturbance around construction sites.
- Limit and control movement of trucks and construction machineries during construction.
- Prepare green areas by planting grasses and other trees in empty land of the premise.
- Grade disturbed areas and restore landscape.
- Contractors should have a contractual obligation to restore areas of temporary land disturbed during construction and is not required after project establishment;
- Borrow pits vegetation cover must be restored after the project activity.
- Tree planting will also be undertaken as a restoration activity at the end of the construction phase, and this will be done in close consultation with the college administration.

8.6.1.7Gender based Violence

Gender-based violence is a phenomenon deeply rooted in gender inequality, and continues to be one of the most notable human rights violations within all societies. Gender-based violence is violence directed against a person because of their gender. Both women and men experience gender-based violence but the majority of victims are women and girls. As earlier mentioned Uganda loses an equivalent of 77.5hbn shillings to GBVs. Some of the possible impacts may include:-

- Rape cases or any form of sexual abuse;
- Denied opportunities to work due to sex;
- Discrimination; among others.

Any form of impacts to human right of both the male and female are considered to be very large if not mitigation measures are instituted.

Impact Significance

onmental value	Magnitude of Impact (Degree of Impact)					
		No	negligible	Minor	Moderate	Major

		change				
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- Any form of GBV shall be punishable or reprimanded to police depending on the violation such as rape cases will be managed by police
- It shall be well spelt out in each contract of the employment force that GBV practises will not be tolerated and punishable by dismissal;
- Programs trainings and awareness campaigns shall be undertaken within and around the Technical College.

8.6.1.8Gender and Labour Impacts

Gender equity in Uganda seeks to strengthen women's participation and benefit from construction projects and the associated auxiliary facilities that come along. This is especially significant considering that this construction project employs a number of technical and non-technical staff (rural poor people, including women). This construction project will boost a number of economic activities that were observed all around the area; these include: selling foodstuff and consumer good in kiosks or roadside markets. A number of times, women are denied such opportunity to work in construction projects due to their presumed inability to handle a number of manual labour, which is incoherent with the government's major program of gender mainstreaming.

Construction workers in a number of projects have been said to work with no consideration of their wellbeing. The contractor focuses more on the delivery of the projects and leaves the workers with no say on the kind of working environment provided the contractor. Some of the negative impacts observed on construction projects affecting workers include:

- Working for longer hours and on weekends than agreed with no extra pay;
- Unjustifiable salary / fee deductions to workers pay for work done;
- Uncontrolled dismissal of workers with no justifiable reason;
- Working hours with no break / resting time to allow workers access meals and drinking water;
- Providing inadequate / worn-out PPE to workers, yet they are exposed to hazardous construction works;

All the above impacts affect human right of both the female sex and well-being of workers negatively and are there for considered to be very large if not mitigation measures are instituted.

Impact Significance

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Impact mitigation

Gender related

- There will be opportunity for women to sell meals and drinks to construction workers, which is a common positive impact for construction projects in Uganda.
- There will be opportunity for employing women, a positive impact, although the number of women hired may be less than that of men for the reason that contractors consider women less suited for strenuous menial labour. However, a gender-responsive approach would be to hire women in roles they are best suited to handle.
- Married women may benefit less from construction employment because their spouses may dictate whether they work or not. This choice being solely a responsibility of an unmarried woman means that single women might benefit the project more than their married counterparts.
- Spread of HIV/AIDS and teenage pregnancy are also reportedly common around construction projects, which will be highly possible considering the project is within the college with high concentration of teenage students;
- Rape cases are high in construction establishments

HIV/AIDS Related

- Carry out sensitization of the locally employed staff in order to create awareness on HIV/ AIDS and minimise rape cases. The sensitization will build a knowledge base on proper sexual behaviour.
- Provide condoms and an HIV/AIDS poster to workers in privately convenient places such as toilets/latrines in camp.

- Put in place worker place committees to oversee implementation of HIV/AIDS control activities.
- Provide counseling support and work based positive culture to post-test workers
- Draw up an action plan to guide implementation of HIV/AIDS activities.
- Establish, equip and recruit competent staff for health unit.

Provisions for good working environment for Contractors Employees/ Workers

In reference to the World Bank Environmental and Social Standard 2, concerned with Labour Conditions, the following have to be considered so as to comply to this Standard, as well as the Employment Act of Uganda.

- All workers on site should have signed contracts with clear job descriptions, salary denominations and deductible statutory amounts like NSSF depending on the amounts
- All workers should have identifications so as to distinguish then form the student body;
- Workers should be provided with food and drinking water especially on hot days within the camp set-up so as to minimize their movements within the college
- Workers should have workers council that seats regularly to resolve work related challenges;
- Establish complaints register which will be reviewed by the contractor administration and resolutions provided;
- Workers should be provided with clean water for drinking and meals;
- Working hours should be observed, therefore, additions working hours should be paid for as overtime;
- Construction labour will be inducted on sexual harassments.
- Dismissal from work or salary deductions should have justifiable reasons and warnings given to the workers as required by the Employment Act.

8.6.1.9 Improper construction waste management

Right from project mobilization to construction and decommissioning, the amount of waste to be generated will be enormous. Solid wastes are likely to be generated especially during construction of the projects listed in chapter 2 of this report. These wastes include; construction concrete waste, excavated spoil marram material / top-soil, domestic wastes, discarded metallic scrap, polythene bags and containers, packaging's, paper boxes and paper waste, broken bottles and food remains (through observation) oil spills and tires. These will require deliberate measures to dispose them off.

There is a possibility of generating hazardous waste material during the operational phase of the project and this will be generated mainly from the proposed workshop areas from vehicle repair works, some of these will include oils from equipment, discarded batteries among others.

Other solid waste expected to be generated on site are human wastes that requires sanitary facilities for their adequate disposal. Construction works will require a small time concrete batching plant which generates hazardous waste water that will need

to be treated before final disposal. All these types of waste are of serious environmental concern.

Impact Evaluation.

Improper waste management would have negative but short/ medium-term but reversible impacts. Dumping of waste in watercourses would cause drainage impairment and localised flooding, creating breeding grounds for disease vectors. Impact magnitude is expected to be minor with good construction practices and supervision of the contractor. Receptor social and environmental sensitivity is high considering the site location, implying a high or major significance if the mitigation measures are not implemented.

Impact significance:

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation: The Contractor will implement a Waste Management Plan (WMP) for proper waste management.

- Should there be servicing of construction equipment on site, all used oils to be containerized in 200 litre drums and stored in facilities licensed by NEMA. Then it will be surrendered to a licensed transporter who will take it to a licensed disposal site. And accidental oil spills to be reduced by means of in house training where persons handling oil will be instructed on how to transfer oil products to containers without spilling. If spills do occur, the workers to be instructed on how to mop up the oil for example by use of gunny bags. All working areas where vehicles are to be serviced should be (a) either bounded with an impermeable material or trenched with an oil interceptor and (b) floored with an impermeable surface;

- Hazardous wastes such as torch batteries, motor vehicle batteries and any other waste classified as hazardous to be disposed of in accordance with the manufactures specifications. Initially it will be contained in sealed drums before it can be transported to designated points;
- There is need to include the requirement to engage a certified NEMA waste handler/contractor for the management of the hazardous waste from Lira and other VTIs .
- Separate waste collection bins on site at source should be provided for ease of sorting wastes generated and properly disposing off different types of waste. Garbage bins shall be placed at several strategic places within the Contractor's Construction site
- VIP pit latrines or mobile toilets shall be provided on site to handle human waste. In some instances, an arrangement can be proposed with the college administration for workers to utilise existing sanitary facilities that are already segregated by sex.
- Otherwise all Metal scrap to be collected and when in suitable quantities should be sold off for recycling.

8.6.1.10 Disruption of college educative activities

Considering the location of the proposed project and how they have been scattered all over the active site of the college. This was done to minimise the disturbance of the already intact green area, however this can have a negative disruptive impact on the daily activities of the college in the following ways:-

- Construction works can generate a lot of noise and dust which would affect the ongoing teaching activities;
- College students can easily miss / dodge classes to join the construction crew and earn that extra shillings;
- Temporary close of some accesses, that acted as shortcuts to some amenities
- Improper disposal / stockpiling of construction waste are an eye sore to the college staff and students who can intentionally decide to post-pone lessons to the time construction works are completed.

Impact Evaluation.

All the above impacts can greatly affect the activities of the college by lengthening period of syllabus delivery, reduced number of student's attendance, missed lessons, if not planned for adequately. Considering that the college is being upgraded to a centre of excellence, these negative improve impacts much as they are short lived restricted to the construction phase only, can have a major, long term impact on the college.

Impact Significance

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate	Large or	Very

				or large	Very Large	Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measures

- All construction works within the college should be scheduled and shared with the college administration for review before it can be implemented such that the activities are planned in such a way that it minimally affects the teaching periods, college activities,
- Ethical code of conduct will be put in place to be followed by the workforce to avoid causing unnecessary inconvenience to the College and community.
- Waste disposal and stockpiling areas shall be identified with consultation of the college administration;
- All workers shall have identification and letter from are leader, such that students of the college can only be allowed to work with written approval from the college administration;
- Most disruptive construction woks can be scheduled to take place in the holiday seasons.

8.6.1.11 Landscape and Visual

Land clearing and levelling as well as dumping of excavated material can be a cause for the alteration of landscape integrity in the project area. However, from the existing environmental features of the project area point of view, the impact from land clearing and levelling will not be significant.

Similarly, alteration of the land use pattern due to dumping of excavated materials is expected to be insignificant, both from the scale of the project and the reversibility of the impact with application of proper mitigation measures perspective.

Impact Significance

Environm	Magnitude of Impact (Degree of Impact)					
		No	Negligible	Minor	Moderate	Major

		change				
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- Though those described impacts are not significant they can be avoided by undertaking the following mitigation measures:
- Grade limitation to avoid spoiling scenery and view lines with earthworks
- Dumping excavated material at selected suitable site and re-shaping it with the dumping site
- Minimizing the movement of vehicles and construction machineries particularly outside the premise of the project site to avoid the distraction of vegetation cover
- Paying a proper compensation to those people who are physically displaced due to the project

8.6.1.12 Air Quality

Impacts on air quality nature as a result of construction activities will be only short term and minor. Operation of construction equipment results in crankcase emissions, exhaust and fugitive dust being released. Some of the construction equipment include cranes, rollers, wheel and chain linked excavators, sino-trucks for ferrying construction materials, among others. Construction equipment to be utilized by the project will also produce emissions of nitrogen oxides (NOx), hydrocarbons, and suspended particulates along with limited quantities of sulphur dioxide (SO2), which will result from the use of diesel fuel. However, the contribution of their impacts on the air quality degradation is expected to be localized and insignificant.

However, as the dust storm can have visibility impact on site operation and decrease breathing because of the suspended particles in the air, this problem is an important issue that requires consideration.

Impact Significance

Envi	Magnitude of Impact (Degree of Impact)

		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measure

- The practical option to avoid local air quality degradation due to dust emissions that can arise from construction activities is to sprinkle water on fresh construction spoil.
- The Contractor shall erect a fence around all the project sites, considering that they are scattered within the college. The preferred material would be iron sheets of a considerable height so as to ensure that no dust material escapes from site.
- To adequately minimize on the amount of dust generated, a comprehensive Dust Management Plan should be prepared and monitored for implementation
- All equipment utilized on site should be serviced regularly and a servicing log kept on site for purposes of monitoring;
- In addition to this, instructing the site workers on the procedures of construction and safety precaution prevents the consequence of visibility loss during operation of construction machineries.

8.6.1.13 Ambient Noise levels

Construction works may cause temporary and localized increases in background ambient noise levels, although the specific impact will depend on the method of construction and equipment used. Hence, the principal noise sources associated with the proposed activities include heavy equipment such as bulldozers, scrapers, and trucks which will only have a temporary impact for the duration of the construction.

Since the construction doesn't involve the use of explosives or blasting, it does not entail significant noises that affect human population or wild lives of the project area. However, being an institution setting, this makes the impact more significant.

Impact Significance

Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- All equipment to be employed in the construction of the facility should be designed to operate with low noise levels, and will not exceed the maximum allowable noise level for the surrounding receiving land use.
- Construction works will be restricted to day hours and more during holiday times such that there is minimal interference to the college activities.
- Construction workers should be sensitized from causing a lot of noise while talking during resting or construction hours.

8.6.1.14 Impacts of constructing drainage channels

Drainage systems within the college is one of the projects to be implemented under the USDP projects listed for phase 1 financing. This is because the current drainage system of the college is very poor and this has compromised some of the college facilities such as access roads. The sites in most cases are prone swift flood draining to downstream during heavy rain. Literally all the premises don't have storm water drainage system in place. According to the preliminary design report, storm water drainage channels are currently being designed in the detailed design stage. The design shall consider breaking the swift flood away from the development area and draining it to the downstream maintaining the terrain and topography of the respective sites. This should be done at non-erosion erosive velocities to avoid gully erosion. Construction of these storm water drainage systems are normally coupled with access road cut-offs, poor disposal of excavated material, increased erosion and wash-offs downstream during construction which all need to be properly planned for.

Impact evaluation: Considering the steep topography of the college, storm water will be very erosive during construction and discharge material onto land/ property adjoining road would lead to gully erosion and land degradation; siltation of streams, swamps and rivers due to sediment deposition; and modification of natural drainage

patterns. Gully erosion and land degradation impacts would be long-term (prevailing for as long as road life) if not controlled. Likelihood of impact occurrence is medium (with good storm water drainage design) Impact significance is therefore *major*.

Impact significance:

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation:

- Project implementation should phase the vegetation clearing to the sites needed for construction depending on the project implementation plan. This will ensure that no areas are cleared and left open for long periods of time;
- Storm water drainage facilities should be installed in such a way that erosive activity of run-offs is reduced greatly.
- Ensure waterways leading into private property are grassed or similar provisions made to reduce erosive velocity of storm water.
- The proposed storm water drainage system will consider collecting rain water generated within the development sites via gutters and downpipes and shall be drained nearby systems.
- Road design should, to the extent possible, utilise the natural drainage patterns.

8.6.1.15 Demolition of structures to be re-modelled / reconstructed.

Some of the very old structures within the college have been proposed for demolition and will be re-constructed to meet the standards of the proposed Centre of Excellence. These include sanitary facilities among others. The proposed structures to be demolished will be guided by both the detailed design report and the college administration. Before any structure is demolished, all required material, equipment shall be sought from it and properly stored. The most outstanding impact from the

demolition process. ***It is important to be noted that***, buildings with asbestos shall not be demolished during this phase of project implementation. Therefore its management and disposal shall be subject to a separate detailed study.

Impact evaluation: Likelihood of the impact occurring is certain (high) but severity moderate (medium) if the college is informed prior to demolition to avoid loss of property. If the wastes from the demolitions are not managed well, these could end-up in:-

- Ecologically sensitive environments, which is prohibited;
- Neighboring private / public land;
- Poorly disposed of within the site causing visual blight to the college staff and students.

Duration of the impact will be medium-term since property loss is to be replaced with an even better structure that meets the required planned demand.

Impact significance:

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measures

- Waste management plan shall be prepared by the contractor during mobilization, clearly stating the possible disposal sites;
- A hazardous waste management plan should be prepared and a licensed NEMA hazardous waste handler contracted to handle hazardous waste.
- From the field survey undertaken, Lira District has a solid waste collection center however its capacity to handle construction demolition waste will need to be assessed.
- Disposal of construction waste should be done in close consultation with the Lira District Environment officer.

- All construction waste shall properly be consolidated on site before it can be transported off site;
- No waste material shall be disposed of into sensitive ecological systems such as wetlands, rivers, or neighbouring land or within the college without written approval.

8.6.1.16 Management of end of life solar batteries

Solar battery waste means depleted consumer batteries that were once used as backup to supply energy to buildings during power shortages. They can contain lead, alkaline, nickel and lithium, which are harmful to the environment if not disposed of appropriately. It is important to segregate battery waste from general waste stream as they contain resources that can be recycled and reused. As batteries start to break down in landfill, the heavy metals they contain can leach into surface and groundwater, polluting the environment and causing potential harm to humans and wildlife.

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- The institute should contact a licensed hazardous waste handler to dispose of sued solar batteries from the institute
- Solar batteries should be incinerated as it is one of the way of handling hazardous wastes on site.

8.6.1.17 Child labour

Construction of the proposed projects listed under chapter 2, will employ a multitude of people, both technical and non-technical. These employees have different ranges of

age and among these are workers under the age of 18. Due to the need of employment and opportunity to earn a living young boys under the age of 18 get involved in casual work that exposes them to a number of hazards and accidental risks.

Impact evaluation: Child labour is for starters against the law because it would expose the children that are still vulnerable to hazardous and accidental risks that would in some instances result into death. Child labour will also lead to family breaks, and high school drop outs. Child labour would be long-term (prevailing the period of construction) if not controlled. Likelihood of this impact occurrence is high as they look for employment. Impact significance is therefore *very major*.

Impact significance:

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation:

- Adequate sensitization for the community targeting, the parents, children, schools and community associations not to allow their children to participate in road construction works due to the hazards and risky environments associated with them; and
- Contractor will keep record of the age numbers for all their employees so as to avoid employing those below the age of 18;
- With regards to the college students looking out for extra income or technical exposure, their involvement in construction will be done in close consultation with the college administration and all these students will possess written approval.

8.6.1.18 Security

All construction projects are associated with security threats such as theft. Other possible threats is bullying from the security guards hired to provide security services to the construction site and materials. Loss of construction material or equipment causes a big set-back to both the construction project and financial loss to the contractor.

Impact evaluation: These security threats such as theft can lead to loss of construction materials such as cement bags or construction equipment. Security threats should thy occur pose a medium problem but will have a major impact on the project as this can delay construction works.

Impact Significance

(Environmental value (Sensitivity))	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measures

- Hiring of security guards from a registered company to that will have records of each guard, to protect both the contactor and the construction material; and
- Conducting adequate consultation.
- The contractor should ensure to use appropriate lighting, install fencing, post signage, and secure equipment at all times.

8.6.1.19 Protection against lightning strikes

Lightning is a naturally occurring electrostatic discharge during which two electrically charged regions in the atmosphere or ground temporarily equalize themselves, causing the instantaneous release of as much as one billion joules of energy. This discharge may produce a wide range of electromagnetic radiation, from very hot plasma created by the rapid movement of electrons to brilliant flashes of visible light in the form of black-body radiation.

Lightning causes thunder, a sound from the shock wave which develops as gases in the vicinity of the discharge experience a sudden increase in pressure. Lightning occurs commonly during thunderstorms and other types of energetic weather systems.

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- All newly constructed buildings should be provided with lightning protection and earthing system

8.6.1.20 Storage of construction materials

During the construction period, there will be a need to stockpile and store assorted materials at or near the construction site so as to ensure easy and uninterrupted access to supplies. This will lead to the following potential impact. Spill and wash away of materials which could pollute land neighbouring land and watercourses. Considering the proposed projects and their location, there is a possibility of utilizing the football pitch as a stockpiling area. This area is in close proximity to the lagoon which serves an important purpose whose contamination will comprise its activity. Additionally, material losses are a financial loss to the contractor.

Impact evaluation: There is a potential pollution risk if construction materials such as sand, cement, gravel are not stored or handled properly. Spill accidents may cause contamination of watercourses or kill off vegetation. Inadequate storage management can also result in material loss through spillages or washing away of stockpiles. This impact is negative with a medium likelihood of occurrence but will be short-term in temporal extent, only occurring during the construction period and local in extent, mostly localised to areas near storage sites. Severity is therefore assessed as high resulting in an overall significance level of *major*.

Impact significance:

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation:

- Contractor should protect material stockpiles from storm water erosion (for example, by excavating a cut-off ditch around stockpiles to keep away storm water).
- Stockpiled materials should be covered with fabric or other materials.
- Contractor should avoid stockpiling material near waterways/wetlands or on slopes.
- Locating of stockpiling areas should be done in consultation with the UTC-Lira technical team, so as to avoid disrupting of the college daily activity;
- Potential contaminants stored on site should be properly isolated and banded.

8.6.2 Decommissioning Phase

Decommissioning simply means ceasing construction activities within the college, where all the planned structures, renovation and connectivity are in place. At completion of the construction activities, all temporary structures put up to facilitate construction will be dis-assembled, cleared, mobilized and taken off site. During this activity, a number of negative impacts will be experienced and therefore practical mitigation measures and restoration activities need to be devised to reduce or completely do away with their effect. Some of the anticipated negative impacts include: -

8.6.2.1Noise and Vibration

During decommissioning noise and vibration may be caused by a number of activities, such as:- offloading and dis-assembling all machinery on site, increased haulage fleet of vehicles transporting varying equipment off site, fence removal and re-topsoiling

the site; among others. Considering that the project is located within the college, which is a highly socially sensitive environment any change in noise and vibration levels will significantly affect the receiving environment negatively. It is affirmed that during construction, the receiving environment will have had adapted to the construction noise however the noise levels are likely to increase due to the increased activities.

Some recommended noise reduction and control strategies to consider in areas close to sensitive ecological niches include: -

- Planning activities in consultation with Collage management so that activities with the greatest potential to generate noise are carried out at the most opportune time;
- Haulage of decommissioned material through the College should be scheduled not to interfere with class / teaching times; and
- Decommissioning activities should be postponed to holiday times when most students are not on site.

8.6.2.2 Soil Erosion

Considering the nature of the soil within the college, increased activity at decommissioning will cause loose soil material thus heavy soil wash down to the gate area or the neighbouring gardens. Impacts related to erosion could raise complaints from the neighbouring community or sedimentation of the water resources thus affecting the water quality and subsequently her functionality. Sedimentation will cause change in water quality, increased turbidity, thus affecting the quality of natural water systems and ultimately the biological systems. Considering the sensitive ecosystem associated with these waters, change in water quality should be highly avoided as much as possible.

Recommended soil erosion and water system management approaches will include:

- Reducing or preventing erosion by:
- Scheduling to avoid heavy rainfall days to the extent possible;
- Elevating bunds around the site where temporary structures will be located;
- Re-green the site cleared and not developed so as to curb down on erosion
- The project has proposed the drainage system, which should also consider reducing on erosive activity of the rain water.

8.6.2.3 Air Quality

Decommissioning activities may generate emission of fugitive dust caused by a combination of on-site movement like increased fleet of vehicles taking off site dis-assembled machinery and dust generation Techniques to consider for the reduction and control of air emissions from decommissioning sites include:

- Minimizing dust along haulage routes by sprinkling of water, with close consultation with the college administration;
- Minimise decommissioning activities to evening times when most classes are not active
- Continuously using of served vehicles;
- Using well serviced and maintained machinery; and

- Avoiding open burning of solid at decommissioning stage.

8.6.2.4 Solid Waste

Non-hazardous solid waste generated at decommissioning will include old or warn out machine parts, paper, and plastics, cement bags, scrap wood and metals, and small geotechnical drilled material among others. Hazardous solid waste is not expected to be on site, however, should they be found, they will also be adequately addressed as explained below.

Techniques for prevention, minimization, and control of these impacts as required in the waste management hierarchy include:

- Providing adequate secondary containment for any hazardous substance found on site;
- Transfer all contaminated substances or hazardous wastes off site to disposal sites by a NEMA registered licensed company;
- All construction waste shall carefully be removed off site and properly disposed off with involvement of the management of the college
- All waste collected at decommissioning stage will be taken off site for disposal;

8.6.2.5 Material Source sites

During construction of the proposed project facilities including the interior road network, it is anticipated that a lot of material such as marram will be required, which will be sought from the neighbouring community. It is therefore required that during this stage of the project, all the marram / material sites should be fully restored, in order to minimise on the un-foreseen accidental cases.

Mitigation Measures

Decommissioning shall be done in close connectivity with the land owner of say borrow pits.

All borrow pits shall be reinstated before the works can be considered as complete.

Community will be informed of the planned borrow pit restoration activities so that accidents by haulage machinery is avoided

Re-grassing shall be done using native species so s to avoid introduction of alien species.

8.6.2.6 Monitoring

At decommission stage, a number of stakeholders shall be involved at the decommissioning stage such that all the planned decommissioning stakeholders are actively involved. Active involvement of all the key layers will guarantee that decommissioning and restoration will be done actively. These include stakeholders at all levels

Figure 44: Monitoring Parties at decommission stage

8.6.2.7 Analytical discussion

At project completion, a decommissioning and restoration plan for this project will be prepared and submitted to National Environment Management Authority for approval. This plan will be developed in close consultation with the college administration such that the plan addresses all the concerns the college administration might have and need to be considered in the decommissioning and restoration plan. The proposed decommissioning and restoration strategy shall be detailed to consider the prevailing conditions then. At this stage of the project conceptualization, it is not yet clear if:-

- During project implementation, a number of changes shall occur not predicted in this report; and
- If decommissioning shall occur at once as a whole or phased to suite conditions then.

8.6.3 Operational Phase

During operation of the Facility, a number of negative impacts are also anticipated, however these are minimal in comparison to when the project is being constructed. Some of the anticipated impacts include:-

8.6.3.1Fire and Emergency

During the functional periods of the constructed facilities, the likelihood of fire outbreaks occurring are very high considering that the kind of mechanical works require welding equipment among others. This mechanical work will also be associated with hazardous lubricants like petro, diesel and engine oils among others that are fire volatile. Considering that the student capacity involved in machine repair works, mechanical works among others, increases the possibilities of a fire-out

brakes are very high and therefore needs to be adequately planned for. Should a fire out break occur, a lot stands to be lost including loss of life depending on when it happens. Any impact that leads to loss of property and life is considered to be severe and very large

Impact significance

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measure

- Therefore, a comprehensive firefighting system has to be instituted that shall include a water sprinkler system to cover each room and being supplied with water from the reserve water storage tanks.
- Each block will additionally have Carbon dioxide and Powder type Fire Extinguishers at convenient points.
- The proposed fire detection systems consist of smoke / flame detectors in each room, a bell/siren in a convenient location and a component to make a communication to fire service (Police).
- Establish presence of fire escape gate and emergence assembly points.
- Undertake regular fire drills to assess the sensitivity of students to fire alarms
- Establish a fire assemblage area that will act as a safe zone should the fire breakout
- Install fire detection systems in each unit.
- Have a documented Fire management plan.

8.6.3.2 Stress of water resources

Increase of the facilities will require put stress on the existing utilities, that is to say power and water facilities. However, the proposed projects to be implemented are upgrading the power supply this leaving the pressure on the existing water sources. Increased facilities imply increased consumption of water. This may consequently lead to a drop in the amount of water received and hence no water supply at certain times of the day. Duration of the impact will be short-term or long-term depending on the recharge from the catchment and the extent of the impact will be local. The intensity of the impact is low given that there are plans to put in place catchment management measures that would contribute in recharging the affected water resources.

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measures

Water conservation measures: saving water is an efficient way of reducing the overuse of ground water resources. It is not only decreases the amount of the water withdrawn, but may also reduce the threat of pollution. Adoption of the above mitigation measures will reduce impact intensity to "very low" resulting in a residual impact of minor significance.

8.6.3.3 Risk of accidents

With the newly constructed structures and upgraded interior roads, possibilities of accidents are very high. The development is expected to increase the traffic along the access roads due to maintenance vehicles, vehicles delivering materials to the workshop, spare parts as well as equipment and tools for maintenance. Exit and entry to the institute currently possess accidental risks as it is.

In addition to road accident, lightening accident among others is also a very common threat which can be fatal in extreme cases.

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	Negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation Measures

Road accident

- Institute a good Traffic management system in place that addresses all traffic related impacts;
- Install adequate signage clearly showing the driving lane, recommendable speed (20km/hr), parking areas, off / on loading areas, among others.
- Presence of emergency contacts with an Emergency response plan should be put in place

Lightening Conductor

Install lightening conductors at each of the building especially those highly raised off the ground.

8.6.3.4 Energy Conservation

Energy conservation is the effort made to reduce the consumption of energy by using less of an energy service. This can be achieved either by using energy more efficiently (using less energy for a constant service) or by reducing the amount of service used. Energy conservation is a part of the concept of eco-sufficiency. Energy conservation reduces the need for energy services and can result in increased environmental quality, national security, personal financial security and higher savings. It is at the top of the sustainable energy hierarchy. It also lowers energy costs by preventing future resource depletion. Therefore reclase use of energy will result into the opposite and thus a challenge to the college.

(Environmental value (Sensitivity)	Magnitude of Impact (Degree of Impact)					
		No change	negligible	Minor	Moderate	Major
	Very high	Neutral	Slight	Moderate or large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Mitigation measures

- The structure have been designed to allow enough sunlight into the facilities during the day. It is therefore expected that lighting is switched off during the day times among others.
- Switch off all appliances not in Use in order to conserve energy;

8.6.3.5 Waste Generation and Management

During operation of the Workshops, Auditorium halls, hotels among other facilities propose for constructions, the amount of waste generated will be enormous. It is therefore very lucrative that the waste to be generated is planned for and the final disposal sites identified for different kinds of water. From the assessment undertaken, waste will be generated from different streams as indicated below:

Table 27: Waste stream generation and management

Waste Stream	Main sources	Potential Negative Impacts
General household domestic kitchen waste including food	• Residential areas Students hostels • Dining Hall • Cafeteria area • Food Canteens	• Smell nuisance from decomposing waste. • Accidents arising from sharp piercing remains. • Leaching or percolation of decomposing matter causing contamination of ground water • Provide favorable conditions for growth of microbial organism's thus aiding disease transmission.
Paper, card boards and similar packaging materials	• Offices • Classrooms • Workshop areas • Library • Mechanical workshops • Timber and associated	• Unsightliness of the site. • Accidents from sharp material

Waste Stream	Main sources	Potential Negative Impacts
	carpentry work areas • Laboratories	
Leather and textiles	• Students hostels	• Unsightliness of the site.
Plastics (hard and soft) and rubber (worn out tryes)	• Mechanical workshop • Administrative facilities • Auditorium • Clinic • Kitchens	• Unsightliness of the site.
Inert construction rubble (aggregate, concrete, masonry, etc)	• Workshop area	• Unsightliness of the site.
Liquid waste including waste water and oil spills	• Administration block • Students Hostels • Mess hail and kitchen quarters for all workers • Sanitary facilities specifically hand wash basins, car washing points and bathing facilities.	• Smell nuisance from stagnant water • Provide favorable conditions for growth of microbial organisms thus aiding disease transmission • Unsightliness of the site
Black and Grey water	• Grey water from sinks, bathtubs and kitchen washings • Black water is from the toilet flushings	• Contains pathogens that can contaminate both ground and surface water.
Unusable Solar batteries	• All the accommodation , classes among others will use solar for lighting.	• Very hazardous waste material and will therefore require that is disposed of as a hazardous waste. All hazardous wastes are either:- - Returned to the supplier; - Disposed of using a NEMA registered company to manage hazardous waste.

Management of these different kind of wastes will follow the Waste management hierarchy presented below:-

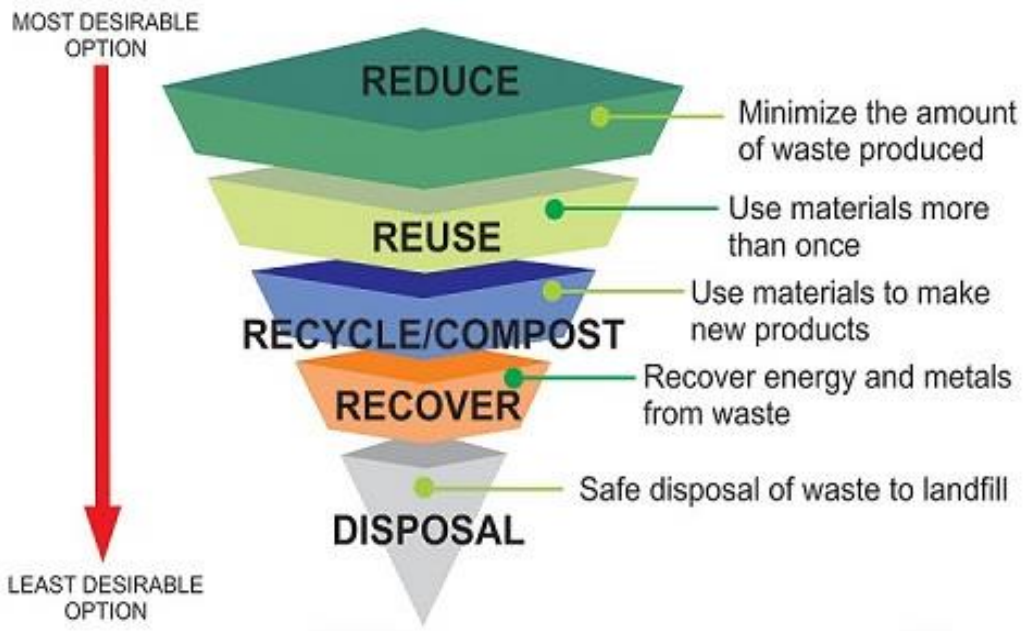


Figure 45: Waste management Hierarchy

If the waste cannot be avoided or minimized then it should be considered for re-use / recycle before disposal. The following mitigation measures have been proposed:-

- Install as much as possible waste collection bins / trash cans in very corner of the site where waste can be collected.
- Where a waste storage license is required (as for the storage of hazardous waste), all storage will be in accordance with the conditions attached to the license;
- Solar batteries no longer needed, shall be pass by disposed of by the NEMA licensed hazardous waste handler.
- Clear, simple and pictorial signage will be provided to indicate where materials can be stored and any specific requirements for their storage;
- Labels and signage will conform to any legal requirements (for example specific labeling requirements apply for dangerous or hazardous materials);
- Waste storage areas will be located away from sensitive environments, drains or waterways;
- Waste will be covered to prevent dust, odours or rainwater wherever possible;
- Waste will be separated where possible to allow for either increased reuse/salvage opportunities;
- Where waste is stored in containers, the containers will be appropriate for the type of waste being stored and the containers correctly labeled;
- Bins and other receptacles will be located such that there is adequate access and maneuvering area for collection vehicles and that the collection vehicles can enter and exit the site in a forwards direction. The collection point for bins and other receptacles will be located to allow waste collection to be undertaken without the need to block traffic.
- A separate site, which is isolated, shall be considered as a stockpile area for all scrap metal and spare parts. The site should be clearly isolated and properly maintained.
- Separate septic tanks and soak pits should be installed to treat grey water separately from the black water. The tanks should be large enough to allow

longer retention time for the aerobic and anaerobic treatment to take place for adequate treatment.

CHAPTER NINE

9. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

9.1 Environmental and Social Management

The Environmental and Social Management) is extremely important during project implementation because it aids in identifying the principles, approach, procedures and methods that will be used to control and minimize the environmental and social impacts of all construction and operational activities associated with the proposed project. The project's main environmental and social have exhaustively been identified in the chapter above, clearly highlighting measures of enhancing the positive impacts and mitigating the negative impacts associated with the proposed developments.

Environmental and Social Management for the construction of project listed under phase 1 for the USDP financing, is imperative in order to comply with the recommendations listed in this assessment, the World Bank safeguard policies and the national environment legal framework. This is to ensure that construction of these projects meets Good International Industry Practice (GIIP), the environmental and social obligations of World Bank and targets of the National Environment Management Authority. The Plan forms an integral part of the contractor's management system and applies to all activities during the mobilization, construction and operation of the proposed developments.

In response to these requirements, the at the time of implementation, the Contractor must develop a Comprehensive Environmental and Social Management Plan addressing all the likely impacts and mitigation measures associated with the proposed project at the time that may not have been easily predicated at this time of the assessment. However this ESMP proposed under this assessment will form the benchmark for forth coming implementation plans to be prepared as well as addressing the monitoring factor. This plan should be prepared with in three / four months prior to construction of the proposed projects listed under chapter 2 of this report. The Comprehensive Environmental and Social Management Plan (ESMP) will comprise of a number of sub management plans will be prepared, approved and implemented throughout the construction and operation. These include:-

Environmentally:-

- Waste Management Plan
- Borrow Pit Method Statement
- Oil Spill Contingency Plan
- Decommissioning and Restoration
- Restoration Plans

Socially:-

- Occupational Health & Safety Management Plan
- Grievance Management Mechanism
- HIV/AIDS and Gender & Social Implementation Management Plan

In order to reduce the impact of the proposed projects on both the college, the surrounding local community where material sources shall be sought and the

environment, the Construction Contractor shall implement the following Sub-Plans mentioned above.

To help address potential negative impacts on the college, environment and local communities, the contractor, at the initial stages of project mobilization, shall recruit the following personnel's to implement the measures proposed in this ESIA, the ESMP and offer professional guidance for the smooth implementation of the proposed projects. They include:-

- A full time Environmental Supervisor;
- A full time Occupational Health Safety Officer;
- A full time HIV/AIDS & Social Service Provider;

9.1.1 Objectives of the ESMP

The Environmental and Social Management and Monitoring right from project conceptualization to mobilization, implementation and decommissioning/restoration has the following objectives:-

- To minimize negative impacts resulting from construction of the proposed project activities on local communities and the natural environment;
- To provide mitigation measures to impacts that would negatively affect the environment during project implementation. To provide a Safe and Healthy environment for the employees and the local communities; and
- To achieve compliance to both the national, international and World bank Safeguard policies for environmental and social requirements.

Specifically, this ESMP will address the following objectives:-

- Ensure transparent and effective prevention, minimization, mitigation, off-setting, enhancement and monitoring measures to manage the environmental and social impacts associated with construction of the proposed developments.
- To safeguard the environment, site staff and the public from site activities which may cause harm or nuisance.
- To achieve environmental and social performance that meets national and international standards.
- Identify training requirements at various levels and provide a plan for delivering the training.
- Defines a mechanism for engaging and effectively communicating with key stakeholders, in the management of the Project's environmental and social issues;
- To streamline communication and operational procedures regarding environmental, health, safety and social compliance for easy monitoring and reporting purposes.
- Provides a framework for Managing and Monitoring the environmental controls and processes implemented by the Contractor's sub-contractors in carrying out their respective responsibilities in relation to the Project.
- To promote gender awareness and mitigate the impact of HIV/AIDS on the project

9.1.2 Scope of the ESMP

This ESMP covers the management of all environmental, social and safety aspects of the construction of projects listed under phase 1 for USDP financing. It covers all works and activities on, along and relating to the main construction works, the proposed borrow areas, sources of materials such as water and other and associated facilities such as dumping sites for demolished construction material. The ESMP applies to recruitment and management of workers, community and stakeholder engagements, and HIV and AIDS campaigns. The ESMMP also links key standalone management plans that need to be developed at the time of project implementation. This assessment has briefly described a few plans which have been appended to this report.

- Emergency Preparedness and Response Plan;
- Waste Management Plan;
- A Grievance Redress Mechanism

The ESMP also applies to the activities of sub-contractors and service providers who are required to follow measures and procedures defined in this Plan in execution of activities sub-contracted to them.

9.2 Environmental Monitoring

Environmental monitoring will be carried out to ensure that construction activities comply and adhere to environment requirements. In addition, implementation of mitigation measures in the EIA report and Certificate of EIA approval conditions will be key in the success of the project. The core monitoring tool the Contractor will use is a standalone Environmental Monitoring Plan. This will serve as a reference document for planning, implementation, monitoring and reporting. Both the Contractor and the Supervising consultant will have competent staff in the field of environmental and social management to ensure that commitments in the EIA report are implemented. Monitoring will involve measurements, observations, evaluations, assessment and reporting on the following variables during the implementation phases of the proposed project. Among others, implementation of the following will be monitored:

- Impact on ecosystems, e.g. damage to trees and other vegetation types;
- Accidents during construction;
- Socio-economic impacts of the project
- Construction waste management;
- Measures for mitigation of air quality regularly;
- Measures for protection of water quality regularly;
- Measures for control of noise levels regularly;
- Measures for Occupational Safety and Health.

Monitoring activities associated with afore mentioned issues should be documented and reported regularly to the Institute administration, District local government and other key stakeholders.

9.2.1 Supervising Consultant / Environmental and Social Experts

The EMT will be supervised and guided by the Supervising Engineer. The Supervisor will also have an Environmental and Social expert who will be active in decision

making forums and site inspections to guide works, for achievement of environmental and social compliance required. The Supervising Environmental and Social Expert will inspect the works for compliance with the contract specifications, proposed construction mitigation measures and all relevant environmental and social regulatory requirements concerning the project. The Environmental and Social experts will also conduct random inspections while construction activities are occurring on site.

Inspection/supervision will include all construction work, excavations, waste collection and disposal areas, access roads and other project structures.

The inspection will include but not be limited to:

- Inspection of executed work for compliance with contract specifications;
- Inspection of construction areas for signs of environmental spills or emergencies;
- Inspection of construction equipment for oil and fuel leaks.

9.2.2 Contractors Environmentalist Management Team

The Environmental Management Team (EMT) of the Contractor is responsible for the full time monitoring and implementation of the Environmental and Social Management and Monitoring Plan. The EMT will be supervised and guided by the Supervising Environmentalist. The EMT will monitor construction activities and oversee the implementation of mitigation measures as specified in this document and any other actions that will be deemed necessary. The team will involve the Contractors; Contractors Environmentalist, Sociologist and Safety Officer.

9.2.2.1Duties of the Contractor's Environment Officer

- Monitoring and ensuring compliance of all the contractors' workers to the requirements of the contract and this ESMP;
- Monitoring and ensuring compliance to all Government of Uganda orders, rules, Laws and regulations with respect to environmental and social matters;
- Day to day monitoring of environmental matters - this will include wider environmental aspects including matters not directly concerned with the actual construction such as contractor's camps, off-site temporary storage and temporary works areas;
- Awareness raising and training of contractor staff with respect to environmental issues; this will include notification of the severe penalties for non-compliance with instructions which may include dismissal.
- Any other matters or issues relating to environmental and social aspects of the works as defined by the Engineer;
- Plan environmental and social activities to be implemented alongside road works.
- Ensure that planned activities are implemented, monitored and reported to supervising engineering consultant.
- Any other professional duties within environment management that shall be assigned to the officer

9.2.2.2 Duties of the Sociologist

- Maintain a log of students, colleges and community complaints/ grievances related to cultural heritage and corrective actions taken to address them;
- During construction stage, patterning or recruiting of NGOs within Bushenyi and Uganda as a whole could be engaged to provide awareness, run programs on gender based Violence, Child protection and HIV/AIDs among others.
- Ensure all concerns raised are addressed;
- To manage liaison with all relevant stakeholders like the college administration, students and the community where the required material will be sourced.
- Undertake mainstreaming of gender issues into the entire project including but not limited to work placements, tools and fixtures, sanitary utilities, creating awareness on sexual harassment and any other forms of discrimination based on gender, ethnic background and race.
- Work with all stakeholders to address sexual harassment, adultery, sexual relations with minors and any other forms of anti-social behavior like drug peddling associated with contract workers.
- To ensure full compliance with all environmental and social aspects of this ESMP, the contract documents and any other Government of Uganda rules, regulations, orders or community requests as necessary and as required.
- Will serve to build strong and open communication channels with all stakeholders including the college administration and student body.

9.2.2.3 Duties of Occupational Health and Safety Officer

The OHS officer shall work closely with the CEO and Sociologist to undertake the following duties:

- Produce an OHS management plan;
- Design and supervise traffic management plan;
- Ensure that all workers are provided with appropriate PPEs and further enforce their use at all times;
- Design and conduct appropriate induction training for all workers on recruitment;
- Design fire management plan including appropriate training for all individuals working or visiting the site;
- Ensure and promote the provision and use of gender sensitive sanitary facilities at all work sites. This will include provision of mobile toilets for work parties;
- Supervise the provision of food and drinking water to workers on duty;
- Deploy and supervise all personnel controlling traffic at work sites; and
- Conduct toolbox talks with all employees.

9.2.3 Emergency/ Environmental Response

For monitoring emergencies, the Supervising Environmentalist will target the following:

- The contractor's activities for non-compliance with environmental specifications;
- Grounds for non-compliance and notify the Supervising Engineer. If non-compliance is not rectified and the significance of the non-compliance warrants it, the procedure to halt construction will be initiated.

9.2.4 Environment Monitoring and Incidence Reports

This section of the report also describes the monitoring program and reporting required for ensuring effective implementation of the Environmental, Social Monitoring and Management Plan (ESMMP), including assignment of responsibilities and environmental performance indicators to be monitored as part of the project. Construction Commencement Report

The Supervising Engineer and Contractor will document the physical, biological and cultural features and values in the area where the project will be implemented. This will be achieved using photographs and any other documents as appropriate. This task should be completed just before handing over the site to the Contractor. The Supervising Environmentalists will mark sensitive areas so that the proposed mitigation plan can be implemented during construction.

9.2.5 Progress Reporting

A monthly Inspection Summary Report and detailed monthly Environmental Report with clear illustrations will be prepared and submitted to the administration, USDP Environmentalist and other stakeholders. The Detailed Environmental Report will form an appendix to the monthly and quarterly inspection and summary report. A copy of all written documentation and records of verbal communication will be submitted as part of the detailed monthly report which will result from a compilation of Weekly Reports. The weekly reports will also include:

- General progress of the project
- Routine mitigation measures being used and monitoring of effectiveness; and
- Environmental concerns encountered including community concerns, recommendations made and new mitigation measures taken (if any) including a list and record of all parties notified of any changes.

9.3 Institutional Arrangements and Roles

1. Who monitor and how:

The proposed development project is within the jurisdiction of Lira Municipality of Lira District. It is important to note that monitoring is a requirement throughout the whole implementation process of projects. For that matter, therefore, it is a prerogative of Lira District and its technocrats (Engineer, Environment officer, Planner etc.) to carryout routine inspection to get acquainted with what is on-going in the due course of construction activities. Monitoring will also be done through site inspection, review of grievances logged by the community and ad-hoc discussions with potentially affected persons. Minutes during discussion will be taken to act as benchmarks for project monitoring under implementation. Other government agencies such as Ministry of Education and Sports, NEMA, Ministry of Gender Labour

and Social Development may undertake a third party monitoring as mandated by the laws governing Uganda. These government entities have the authority to inspect any on-going work without making prior notification to effect compliance with national requirements.

Considering that the projects to be implemented under the USDP World Bank financing, is one of the options the Government of Uganda initiated to operationalize the BTVET strategic Plan. USDP targets enabling programmes to meet skills needs in key priority sectors of the economy i.e. Agriculture, Construction and Manufacturing, in line with Uganda's National Development Plan (NDPII) as well as Vision 2040. This therefore implies that World Bank will be very instrumental in undertaking the supervision role as well.

- **Contractor's environmental officer Monitoring Report**

Monitoring will be undertaken monthly over the construction period. Detailed monthly monitoring reports with clear illustrations of implementation of mitigation measures shall be compiled by the contractor's environmental officer under oversight of the Supervising Engineer (SE). These detailed reports with evidence of compliance shall be prepared and appended to summary monthly reports.

9.4 Obligations of the Contractor

The construction contractor is required to develop a (1) Contractors Environmental and Social Management Plan (CESMP) —which should include a relevant Emergency Response Plan, (2) Occupational Health and Safety Plan, (3) Construction Hazardous Waste Management Plan and (4) Gender Management Plan. In addition to monitoring of implementation of environmental provisions by the SE's Environmental personnel, Environmental Specialist, Sociologist will oversee effective implementation of measures suggested through the Engineer and Contractor. The Contractors' Environmentalist and Health and Safety Officer will be responsible for implementing the CESMP and developed Emergency Response Plan. Monitoring sequences should be agreed upon with the contractor before commencement of works.

9.4.1 Recruitment of Workers

It is a responsibility of the Contractor to carry out recruitment of workers to be used in the Construction activities. Workers in this project phase are anticipated to be recruited from the surrounding community. The recruitment of labourers will require a careful consideration whereby the contractor has to liaise with the local authorities. Order and discipline approach in recruitment process is required.

The following will be considered by the contractor as he prepares to initiate the recruitment process:

- The maximum distance from which the labour will be chosen
- How many people are required by gender;
- Notifying the local chairpersons (their authority must not be undermined);
- The date and time they should arrive at the site.

At a recruitment meeting, a brief explanation about the work and conditions of service should be given to all prospective candidates; the required numbers of candidates selected should be based on their potential. There should be meritocracy; the successful candidate must be given a detailed explanation of the work required and conditions of service. Among the important details are:

- The wage rate;
- The system of task work;
- The pay periods and first pay date;
- Hand tool allocation and responsibility;
- Discipline and dismissal;
- Probable period of employment;
- Medical liability.

Ideally, a small leaflet containing this information in English and any other local language clearly understood by Job seekers should be availed to them. The recruitment day is not a working day, and thus not a wage-earning day. After recruitment, the people must be informed on which day to report for work.

9.5 Below is the ESMP for the proposed project site - Uganda Technical College- Lira

Table 28: Environmental & Social Management Plan for the project

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
Loss of Vegetation	Top soil clearance of site	Undertake landscaping and re-vegetation on site for all areas left unutilized after construction through creation of green islands of improved grass and ornamental trees to ensure a green environment.	Excavated area and the restoration program	Throughout the project. After excavation works, restoration should be undertaken immediately.	Monthly	Contractor	1000	Contractor , Consultant , USDP officials, DEO, MEO, DCDO. Lira Administration
Soil erosion and subsequent concerns	Excavation works exposing loose earth and liable to erosion	The excavated areas will be progressively levelled and compacted to prevent any soil erosion.	Amount of excavated loose soil on site and its management systems	Throughout the project	During construction phases. Daily.	The Contractor	N/A (to be BOQ)	Contractor , Consultant ,
		Re-vegetation of the disturbed areas will be carried out after construction activities.	Planting of grass	At project Completion	Daily at project completion	Contractor	To be considered in the design report / BOQs	USDP officials,

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		Movement of heavy machinery will be limited only to designated access routes and operational areas.	Designated access routes through at the project site	Through-out project construction	Weekly maintenance of the access roads	Contractor	To be considered in the design report / BOQs	DEO, MEO./ Lira Technical Staff
		The construction site will be hoarded off to intercept any eroded material.	Site will be hoarded off using iron sheets since it traps both soil eroded and dust particles from construction site	At project mobilization	During construction phases. Daily.	Contractor	1200	USDP official, Lira Technical Staff
		Any excavated material will remain within the site until it is taken away for proper disposal or used for backfilling to avoid loose soil being washed away by storm water.	Waste material shall be kept on site	Through-out the project	During construction phases. Daily.	Contractor	N/A	DEO, MEO, USDP official, Lira Technical Staff
Solid waste Management and Disposal		Waste soil will be reused for backfilling where necessary. Other reusable	The amount of solid waste on site and the waste	Construction stage	Throughout the construction phase	The Contractor	Considered in the BOQs, Detailed	DEO, MEO, USDP official, Lira Technical

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		materials will be sold or give away to interested people.	management systems at site		while undertaking weekly management systems reviews.		Design	Staff
		• Waste collection bins will be provided onsite for temporary storage. For final disposal to Lira Municipal Disposal site.	Considering the number of scattered construction sites, a number of waste bins are anticipated	During construction stage		The Contractor	5000	
		• The collected waste will be transported and finally disposed to approved waste disposal site and for hazardous material will be disposed off at the authority designated disposal sites by the contractor.	Lira waste disposal site. This will be the same write where the current wastes are finally disposed of.	During construction stage		The Contractor		

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• Workers will be sensitized on proper waste management practices including segregation.	Sensitization on waste management shall be undertaken by the qualified contractors environment, health and safety expert	During construction stage and operation	Sensitization reports , attendance sheets and photographs	The Contractor, MEO, DEO	N/A	
		• General cleaning and good housekeeping practices will be emphasized for a tidy working environment.	Daily cleaning logs to ensure cleaning and appropriate waste management	During construction stage and operation	Daily cleaning logs	The Contractor	N/A	
Noise impacts	Construction machinery including excavators, compactors, mixers etc. Increased traffic load	• Workers operating equipment generating noise levels greater than 80 dB (A) continuously for 8 hours or more should use earmuffs. Workers exposed to prolonged noise of 70 – 80 dB (A)	Noise levels at the nearest sensitive receptor sites, recorded using noise meter to ensure application of required PPE where required.	Before and during construction	Weekly records of noise recorded at different sites	The Contractor;	2000	Busheyi Technical institute

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		should wear earplugs.						
		• The construction site should be hoarded off to restrict the noise to the site confines only.	The site will be hoarded off using iron sheets, which also acts as a good noise distractors.		Presence of at iron sheet fence		1000	
		• Sound-reduction equipment will be fitted to machinery and maintained properly; • Noisy construction works shall be restricted to day-time (7am-5pm), and as shall be recommended by the NEMA.						
		• There will be regular servicing of all equipment and vehicles to ensure	Number of noise complaints recorded; and		Number of noise complaints registered at the		To be considered in the design report /	

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		high operation efficiency thus less noise and vibration.			construction site.		BOQs	
			Noise monitoring records				3000	
Construction dust	Removal of the surface layers of the soil and the accumulation of dry excavated earth by machinery.	• The construction workers especially those involved in dust generating activities like dispensing cement at concrete mixing should be provided with appropriate safety wear including overalls, boots and appropriate masks.	Complaints from workers and visible settled dust on nearby vegetation / structures	Instituted right from project mobilization / clearing / demolition.	Throughout the construction period while undertaking dust suppression techniques at least three times a day during dry weather.	Contractor	Provided for below	
		• Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements;	Number of watering of the construction site and the access routes	Instituted right from project mobilization / clearing / demolition.			10,000	

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• All trucks hauling soil, sand and other loose materials to the site will be covered with tarpaulins. All such trucks will be required to maintain at least two feet of freeboard.	Number of trucks hauling material. Evidence of covering material	During construction	Weekly, with weekly / monthly report	Contractor and consultant	10,000	Contractor and consultant HSE, Lira Team
		• Hoard off the construction site to intercept the dust particles from escaping the site especially during ground excavation.	Hoarding material shall be iron sheets for all active construction sites facilitating implementation of phase 1 projects. Number of complaints on dust levels	During mobilization, construction.	Weekly, with weekly / monthly report	Contractor and consultant	Already costed for	Contractor and consultant HSE, LiraT Team
		• Sprinkling of water will be done on dusty surfaces (at least 3-4 times a day) to	Record Log of trips sprinkled per day	During mobilization, construction.	Monitoring shall be reported on Monthly	Contractor	Included in the BOQ	Consultant Lira Admin'n, Student Body Rep,

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		suppress dust emission;						Com'ty Leader, DEO
		• A speed limit for all vehicles will be introduced and enforced to reduce dust generated by over speeding within the approved access routed within the college with adequate traffic management signage	Presence of safety traffic management sign posts, Clearly named and designated access routes among others	During mobilization, construction.	Monitoring shall be reported on Monthly	Contractor	10,000	Contractor and consultant HSE, Lira Leadership Team, Students
Influx of persons looking for jobs. And		• Prepare a comprehensive Recruitment Plan/Labour Force Management, which shall include contracts samples, job description,	Presence of LFMP, contacts, HR Manuals	Mobilization to completion	Monthly	Contractor	N/A	Consultant, District labour Officers, USDP officials
Injury of workers		• All job seekers shall be allowed into the institute on recruitment	Evidence of signed in persons looking for	From mobilization through out to Operations	Monthly	Contractor	N/A	Consultant Lira Administration District

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		days only. • Recruitment days shall be scheduled in times that will not affect the institute operational programs.	jobs on recruitment days. Evidence of a Recruitment timetable properly displayed at strategic locations					Labour Officer USDP and WB officials
		• No idlers will be allowed or tolerated in the institute. • All workers will have identification and be issued with contracts as required by the employment act;	Evidence of Contracts and Identification records for all workers	Right from project conceptualization	Weekly due to the anticipated high turnover rate	Contractor	N/A	Contractor, Consultant, Lira Administration, DLO, and MoES
		• Safety and health training will be provided to all workers prior to commencement of work. • The Site clinic shall be opened up to address emergency cases, or	Health and Safety training records; Tool Box talks records Attendance sheets and	Right from project Mobilization stage through to Operation	Monthly	Contractor	2,000	Consultant, Lira

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		collaboration to utilize the health dispensary already existent in consultation with the institute administration.	Training program and manuals; Records of project related staff attended to and what case was treated.				7,000	Administration, DLO, District health Officer and MoES
		• The workers will have access to a first aid kits which will be present at the construction areas.	Evidence of first aid kit, and record of stocking the FA Kit	During construction to decommissioning stage	Monthly	Contractor	2,000	Consultant, Lira Administration, District Health Officer and MoES
		• Prior communication of the recruitment program shall be communicated to the institute management;	Evidence of prior communication records	At project Mobilization and throughout the project	Weekly	Contractor	N/A	Consultant, Lira Administration, DLO and MoES
		• Sensitization of neighboring communities on	Sensitization program, Sentization	At project Mobilization and	Bi-Monthly	Contractor	3,000	Consultant, Lira Administrati

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		the possible increase in persons looking for jobs that will be coming from different parts of Uganda, so as to manage expectations.	records, Attendance sheet	throughout the project				on, DCDO and MoES
		• Install mobile sanitary facilities for use by the construction team or consult the institute in case of possibilities of using the already existing facilities; these must be furnished with water, toilet paper, vim, soap at all times, and must have a full time cleaner.	Evidence of mobile facilities or written record from the institute allowing them to use their facilities	Right from project Mobilization to Decommissioning	Monthly	Contractor	2,000	Consultant, Lira Administration, DHO, DEO and MoES
Impacts on public health		• While sourcing material from community, the following should be observed: -	Presence of Lease agreements;	During Operation's to Decommissioning Phase	Bi- Monthly to ensure that no community stakeholder	Contractor	2,000	Consultant, Lira Administration, DLO and MoES

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• Ensure land lease/consent agreement and agreed and signed by both parties • Adequate compensation / purchase of material sourced • Drive at recommended speed to limit on raining dust; • Maintain good conduct to avoid project – community conflicts;	Evidence of payment records; Photos of speed limit; Evidence of continued consultation and sensitization		is aggrieved			
		• Sexual abuse, marriage-breakages and early pregnancies should be avoided; among others	No record of such mis-conduct. Review of Grievance book	During Construction	Monthly	Contractor	N/A	Contractor / Consultant, DEO, DWO, Lira Administration
Risk of contaminated of soil and surface water.		• The generator and all construction equipment will be serviced regularly on/ off site. If serviced on-site, precautions to	Evidence of service logs; Evidences of spill kits; Concrete bund around	During Operation stage	Monthly	Contractor and Service Company records	Included in the BOQ	Contractor / NEMA, Consultant, DEO, DWO, Lira Administration, DCDO,

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		prevent leakages/ spills or used oil from the generator must be under taken, such as construction of a concrete bund around the generator. • Spill kits should be used during re-fueling and servicing. • Petroleum products in storage specifically fuel for the generator should be stored under lock and key.	generator house					MoES
Interruption of institute activities		• All activities to be conducted during the mobilization stage shall be communicated to the institute and their recommendations shall be adhered to.	Evidence of communication at mobilization, Presence of response letters from the institution	Throughout mobilization	These communications shall be archived in records for ease of retrieval	Contractor & Consultant	N/A	Contractor, Consultant, Lira Technical college, USDP officials

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
Improper human waste disposal	Lack of disposal facilities at site	• The contractor will put in place a temporary human waste disposal facility prior to commencement of works or use a mobile facility. The preferred facility should be content tight to avoid water and soil contamination through seepage.	Presence of the human waste disposal facility (Mobile toilets)	Before commencement of any construction works and maintained through-out the construction phase	These facilities will be cleaned and\ monitored daily. Cleaning log	Contractor	15000	Contractor, Consultant, Lira Technical college, Municipal Health Officer
	Management of black and grey water	• Construct water borne toilets • Ensure full time cleaners are hired • Equip the toilets with water full time, and toiletries (toilet paper, soap, fresheners, vim). • Construct adequate soak pits and septic tanks for the latrines and toilets respectively	Presence of water borne toilets; Photographic evidence of the toiletries; Presence of contract with the NEMA licensed; Evidence of Soak pit and	During Operation phase	Quarterly to assess functionality	Contractor	Included in BOQ	Lira Technical college administration, Municipal Health Officer

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• On average, after every 4 years, hire services of a NEMA licensed cesspool emptier to empty the septic tanks	septic tanks					
		• Prepare and implement a comprehensive waste management plan that complies with the National Waste Management Regulations, 1999 and World Bank Safeguards/Operational Policy on Environmental Assessment (EA) (OP/BP 4.01),	Waste Management Plan with approval letters for implementation	At project Mobilization	Monthly	Contractor	1,000	Contractor, Consultant Lira Technical college administration, Municipal Health Officer
Waste Management		• Segregate waste into biodegradable and non-biodegradable categories. • Do not litter waste • Do not burn waste on site.	Presence of a waste bins segregated for different waste collection; Do not litter signposts	During construction to operation	Weekly	Contractor	3,000	Contractor, Consultant, Lira Technical college, Municipal Health Officer

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• Make records of waste generated and disposed off weekly	Evidence of such records	During construction to operation	Weekly	Contractor	N/A	Contractor, Consultant, Lira Technical college, DEO
		• Hire a NEMA licensed hazardous waste handler to collect and dispose of waste	Presence of contract of NEMA registered personnel / company	During construction to operation	Monthly / Quarterly	Contractor	3,000	Contractor, Consultant, Lira Admin'n, NEMA, DEO
Impact on site Drainage and hydrology	Improper planning of storm water which cause valleys that will eventually compromise the strength of newly constructed facilities	• Construct stone pitched drainage channels around the college to handle storm water runoff	No of galleys present after construction	Throughout construction to Operation phase	Monthly or after every heavy down pour	Contractor	Included in the BOQs	Contractor, Consultant, Lira Admin'n,
		• In busy sections, the stone pitch drainage channels should be covered to avoid accidents	No of accidents caused by accidental falls	Right from mobilization to operation	Monthly monitoring	Contractor	Included in the BOQs	Contractor, Consultant, Lira Admin'n
		• Install gutters on all buildings and tanks for rain water harvesting	Presence of gutters and rain water harvesting tanks	Construction and operation stage	Monthly / Quarterly	Contractor	Included in BOQs	Contractor, Consultant, Lira Admin'n, MoES

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• Do not throw waste in drainage channels.	Waste Mgt plan and waste bins	Construction and operation stage	Monthly	Contractor	Included in BOQs	Contractor, Consultant, Lira Admin'n, MoES
Risk of fire outbreaks	Fires could be generated from the workshop areas among others	• All flammable substances kept on site shall have a fire-extinguisher within the vicinity to manage all fire outbreaks.	Presence of fire extinguisher	Construction and operation stage	Monthly	Contractor	Included in BOQs	Contractor, Consultant, Lira Admin'n, MoES
		• The fire extinguishers must be duly serviced by a reputable company, and next service date indicated. Fire drills must be conducted regularly and training of the use of fire extinguishers undertaken regularly.	Evidence of previous Saturday Service logs	Construction and operation stage	Monthly	Contactor	Bio-physical environment	Contractor, Consultant, Lira Admin'n, MoES
		• Presence of fire escape gate and emergence assembly points.	Presence of an assembling area, water sprinkling	During construction and operation stage	Monthly	Contractor		Contractor, Consultant, Lira Admin'n,

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		• A water sprinkler system to cover the whole facility in which the equipment is installed and stores shall be designed. • Install fire detection systems in each structure at site.	pipes strategically located					MoES
Occupational Safety and Health concerns	Construction activities including working at height.	• The contractor will ensure that only trained workers operate equipment.	Number of near misses, incidents and accidents reported.	During project construction	Throughout construction period while reviewing the measures weekly.	Contractor, Police reports in case of accidents	N/A	Contractor, Consultant, Lira technical college, USDP officials, MEO, DEO, DCDO, Lira town coil leadership, Lira Police
		• First aid services to cater for minor accidents will be availed by the contractor.	Presence of a fully equipped first aid. Number of replenishment	From project mobilization stage	Through the project, Weekly reports / records	Contractors Nurse	1000	
		• Necessary personal protection equipment such as	Safety measures on site.	From project mobilization stage	Through the project, Weekly reports /	Contractor and safety officer on site	15000	

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		safety latches, helmets, boots and gloves will be provided to all site workers and used whenever required.			records			
		• Guidelines and regulations on site safety will be communicated to all workers, suppliers, sub-contractors and residents. As well as registration of all work sites	Registered worksites with Ministry of Gender, as well as implementable guidelines	From project mobilization stage. Implementation and monitoring shall be done daily	Monitored every month	Contractor and safety officer on site	13000	
		• Close supervision of work, including the provision of appropriate training for the workforce in observing better construction practices and handling emergency cases will be given priority and	Training of workers by a trained specialist. Selecting of safety foremen at different construction sites. Tool box talks recorded in the logs.	From project mobilization stage. Implementation and monitoring shall be done daily	Monitored every month	Contractor and safety officer on site	7,000	

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		undertaken.	Safety audit reports					
		• The hoarding should be tall enough to avert any falling debris and other remains that may harm the public;	The hoarding material proposed for both noise and dust management shall be employed at all construction sites.	From project mobilization stage. Implementation and monitoring shall be done daily	Monitored every Daily	Contractor and safety officer on site	Already catered for.	
Grievance Management on site with workers and the neighboring community, as well as Lira students Stakeholder	Management of community, students and workers complaints	• Grievance Management team should be instituted on site, • Workers council shall be encouraged to manage workers complaints and	Presence of the grievance mechanism on site. Workers complaints log and those resolved. Minutes of	Implemented though out the project right from project mobilization to construction	Monitored weekly and monthly	Social Officer for Contractor, Contractor and Consultant	3,000	Contractor, Consultant, Lira technical college, USDP officials, MEO, DEO, DLO, DCDO, Lira town coil

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
Engagement Child Labour		challenges. Complaints log • Monthly community and college meetings to manage grievances. Presence of grievance log on site	workers council sittings. Grievance logs Evidence of Monthly minutes with attendances and photographs. Feed-back mechanism in place					leadership,
Staffing or Required Personals	Full time and well qualified and experienced persons shall be recruited full time on the project	• Full time Environment Officer, safety Officer, Sociologist	Presence of the technical persons on site	Implemented though out the project right from project mobilization to construction	Monitored daily	Contractor (project manager)	30,000	Contractor, Consultant, USDP officials
Gender mainstreaming	Rape and sexual harassment Gender Discrimancy	• Gender sensitization • Trainings	Presence of technical experts	Implemented though out the project	Monitoring Weekly	Contractor (project manager)	5,000	Contractor, Consultant, USDP officials

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
HIV/AIDS Mainstreaming	Spread of HIV/AIDS	• The contractor's code of conduct should prohibit sexual relationships • Contractor should provide condoms and HIV/AIDS posters to workers • The contractor should collaborate with police; • As a contractual obligation, the contractor should have an HIV/AIDS Policy • Continuous HIV/AIDS.	Code of conduct HIV/AIDS Evidence of collaboration with Police	Implemented though out the project	Monitoring Weekly	Contractor (project manager)	20,000	Contractor, Consultant, USDP officials
Poor Energy conservation	Excessive power usage	❖ Efficient/optimum design should be developed that allows for enough sun-light throughout day hours, efficient and energy saving fluorescent lights etc.	Reduced power costs		Monthly	Kalongo Administration	1000	Institute Administration
lightning strikes		❖ All newly constructed buildings	Lightning protectors on	Throughout the operation	Annually	Institute Administrati	2000	Institute Administrati

Impact Issues	Cause of impact	Proposed mitigation measures	Monitoring Indicators	Period	Frequency of monitoring	Responsible Party	Estimated Cost (USD)	Monitoring Team
		should be provided with lightning protection and earthing system	buildings	of the structures		on		on
Solar battery wastes	Improper disposal of battery wastes	❖ The institute should contact a licensed hazardous waste handler to dispose of sued solar batteries from the institute ❖ Solar batteries should be incinerated as it is one of the way of handling hazardous wastes on site.	Licensed hazardous waste handler	Throughout the operation of the structures	Annually	Institute administrati on	2000	Institute Administrati on
	GRAND TOTAL PROPOSED FOR THIS ESMP						200,200	

CHAPTER TEN

10. GRIEVANCE REDRESS MECHANISM

10.1 Introduction

For projects with environmental and social impacts, grievances are inevitable. It is therefore imperative that a grievance mechanism, scaled to fit the level of risks and impacts of this project, is developed. According to World Bank, grievance management is one of the pillars of stakeholder engagement for all affected persons; combined with effective community engagement, a transparent and legitimate grievance mechanism that is a joint effort between the company and communities can increase trust and improve communication.

This mechanism, therefore, describes avenues for affected persons to lodge complaints or grievances against the project, its staff or contractors during its implementation. It also describes the procedures, roles and responsibilities for addressing grievances and resolving disputes. Every aggrieved person shall be able to trigger this mechanism to quickly resolve their complaints.

If any grievances arise during implementation Component 2 of Skills Development Project (which entails civil works and building construction) they should be addressed through a systematic and documentable grievance mechanism. The grievance redress mechanism should provide avenues for affected persons to lodge complaints or grievances against the project or contractors. It also should describe procedures, roles and responsibilities for managing grievances and resolving disputes. Every aggrieved person shall be able to trigger this mechanism to quickly resolve their complaints.

A grievance redress committee (GRC) shall be formed at each Centre of Excellence, comprised of the following representatives:-

- UTC- Lira principal or equivalent;
- The Contractors project manager and Sociologist;
- Municipality representative;
- The Supervising Consultant,
- The area LC.1 Chairpersons for the 2 neighboring villages,
- Representative from the student body; and
- Local staff of the UTC – Lira.

10.2 Key objectives of the grievance process are:

a) Provide affected people with avenues for making a complaint or resolving any dispute that may arise during project implementation;
b) Ensure that appropriate and acceptable corrective actions are identified and implemented to address complaints;
c) Verify that complainants are satisfied with outcomes of corrective actions;

d) Avoid the need to resort to judicial (legal court) proceedings, unless all non-judicial avenues fail.

10.3 Qualities of a good grievance mechanisms.

- Legitimate. Must have clear, transparent, and sufficiently independent governance structures to ensure that no party to a particular grievance process can interfere with the fair conduct of that process.
- Accessible. A mechanism must be publicized to those who may wish to access it and provide adequate assistance for aggrieved parties who may face barriers of access, including language, literacy, awareness, finance, distance, or fear of reprisal.
- Predictable. A mechanism must provide a clear and known procedure, with time frames for each stage; clarity on the types of process and outcome it can (and cannot) offer; and means of monitoring the implementation of any outcome.
- Equitable. A mechanism must ensure that aggrieved parties have reasonable access to sources of information, advice, and expertise necessary to engage in a grievance process on fair and equitable terms.
- Rights-compatible. A mechanism must ensure that its outcomes and remedies accord with internationally recognized human rights standards.

Transparent. A mechanism must provide sufficient transparency of process and outcome to meet the public interest concerns at stake and should presume transparency wherever possible.

Based on above objectives, grievance management process has been described below.

10.4 Grievance Management Process

Step 1: Receipt of complaint

A verbal or written complaint from a complainant will be received by the site supervising engineer or foreman and recorded in a complaints log kept on site.

Step 2: Determination of corrective action

If in his/her view, a grievance can be solved at this stage, the site supervising engineer will determine a corrective action in consultation with the aggrieved person. In-case it is not resolved by the Supervising Engineer, then the complaint shall be forwarded to the GRC.

Grievances will be resolved and status reported back to complainants within 5 working days. If more time is required this will be communicated clearly and in advance to the aggrieved person.

Step 3: Meeting with the complainant

The proposed corrective action and timeframe in which it is to be implemented will be discussed with the complainant within 5 days of receipt of the grievance. Consent to

proceed with corrective action will be sought from the complainant and witnessed by the area's local council chairperson (LC Chairman).

Step 4: Implementation of corrective action

Agreed corrective action will be undertaken by the project or its contractor within the agreed timeframe. The date of the completed action will be recorded in the grievance log.

Step 5: Verification of corrective action

To verify satisfaction, the aggrieved person will be asked to return and resume the grievance process, if not satisfied with the corrective action.

Step 6: Action by Grievance Committee

If the complainant remains dissatisfied and a satisfactory resolution cannot be reached, the complaint will be handled by the Grievance Committee. A dedicated Grievance Committee will be established to assess grievances that arise from disputes.

This committee must have a quorum of at least 3 people and decisions will be reached by simple majority. The Grievance Committee should be constituted for as long unresolved grievances are pending.

Step 7: Seek Legal Arbitration

In cases where there the complainant remains dissatisfied, the Complainant can seek for legal resolution or arbitration, so that a decision is made.

Note: It is however important to note that any complainant has a right to seek for legal arbitration and this can be done without influence from the GMC, if the complaint is not comfortable at resolving the possible grievance with the GMC.
However during project implementation, continuous awareness shall be undertaken so as to create a conduce platform for all complainants to log their complaint with the GMC team.

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APPENDICES

Appendix 1: Record of Stakeholder Engagement

Meeting 1. Meetings with Uganda Aids Commission.

Project Name	USDP – Upgrading of Lira Technical Institute to a Center of Excellence AWARENESS CREATION / CONSULTATION MEETINGS
Location:	Ntinda, Uganda Aids Commission Offices

Present	**CONSULTANT TEAM** Sibo Gloria Muhwezi – Environmentalist Baker Muyangu-Environmentalist Amanda Chrispa Lulu- Sociologist **UGANDA AIDS COMMISSION (UAC)** Oola Eugene- Head Planning Sarah Khanakwa- Head Mobilisation Quintu Rwotoyera- OGA Charles Otai- M&E

MIN 01/UAC /2018	INTRODUCTION/ BACKGROUND FOR THE PROJECT	ACTION
	1. Ministry of Education and Sports is implementing a project called USDP intended to skill Uganda from being job seekers to job creators with more practical and implementable skills. This project therefore focuses on a number of technical colleges and institutes whose way of performance is to be upgraded. $ technical colleges region based were selected and studies are being undertaken on how they can be transformed into Centers of Excellence, and 12 Vocational Institutes have been also selected for upgrading. The 4 Colleges include UTC – Bushenyi, UTC – Elgon, UTC – Lira and Bukalasa technical College.	

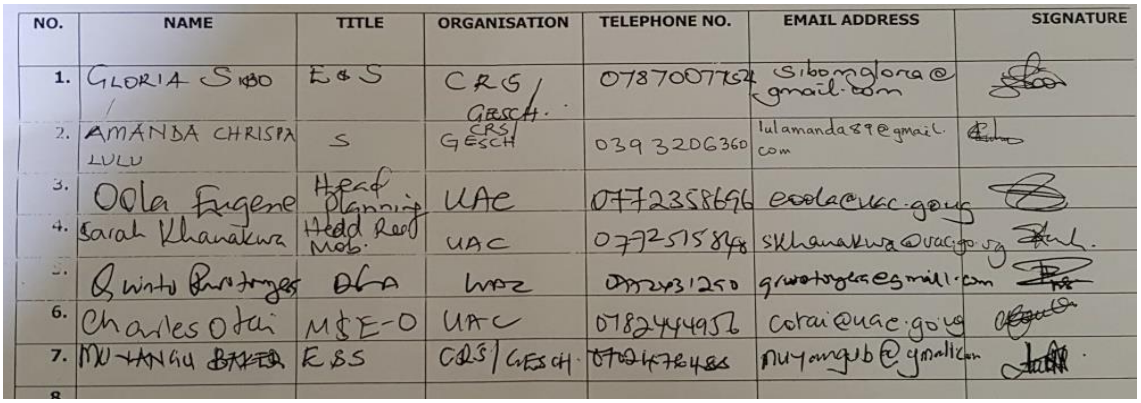
	Currently designs for projects to be implemented in Lira are in their detailed stage. The proposed project is to be funded by World bank. For any project to be implemented in Uganda, undertaking an ESIA is critical such that the project is delivered in an Environmentally sound and Socially friendly manner. It is important that the project is delivered with minimal impacts. While undertaking these ESIAs, stakeholder consultation is very critical and such that they guide the assessment way ahead of time, since it forms the tool for project implementation. As a government body which is mandated to raise awareness and curb the spread of HIV, it is critical that consultation with your organization is undertaken and views from this consultation form a basis for HIV/AIDS mainstreaming in the proposed development project.	
MIN 3/UAC/2018	**Presentation from Uganda Aids Commission.**	
	3.1 Uganda Aids Commission representative welcome the members to the meeting. They appreciated that a number of construction projects today make the effort to consult them and as such they have devised a number of measures, guidelines and procedures to bridge this gap. 3.2 The UAC is mandated to coordinate and have oversight over the national HIV and AIDS response and as such always coordinates with construction companies on such projects. 3.3 UAC has observed that most construction companies are fairly implementing the measures but while UAC continues to work with these companies, the gap shall be bridged.	
MIN/4/UAC/2018	**Observations by UAC on the performance of construction companies on the implementation of the measures to curb HIV spread.**	
	4.1 Shallow scope of HIV awareness and programming. HIV is not only about health. It affects very many sectors and as such in raising awareness to the communities about HIV and AIDS, it ought to be addressed by all the players/ stakeholders involved.	

	Effort is mainly put on pinning posters on HIV/AIDS prevention and distribution of condoms but this is a small percentage of what needs to be done to curb HIV spread. 4.2 Some construction companies focus more on raising awareness on HIV to their workers other than the community in which the project is being undertaken. 4.3 Ineffective interventions (e.g.) curfew for the workers and restricting access to the project site to only workers and not the community members. 4.4 Poor monitoring by the construction companies on the measures undertaken to curb HIV spread on the project. 4.5 Some construction companies employ their own employees like the project officers on site to conduct HIV awareness yet these do not have the capacity to conduct proper HIV & AIDS awareness sessions. 4.6 These observations portray that UAC currently has no standards on the implementation of measures to curb HIV and raise HIV awareness. However, UAC with other stakeholders has developed draft standards, that is, the minimum HIV&AIDS package as stipulated in the mainstreaming guidelines which are in the final stages and will soon be shared with all concerned parties and the public. 4.7 Once these standards are published, all construction companies must abide by the **"minimum standards package'.**	
MIN 5/UAC/2018	**Recommendations by Uganda Aids Commission.**	
	5.1 UAC will provide oversight of the HIV&AIDS program of the project, supervise and participate in quality assurance meetings through quarterly performance review meetings organized and facilitated by the construction company. 5.2 There is need to commence the HIV programs early especially mobilizing communities for sensitization and awareness before construction activities commence. 5.3 The contractor should consult all stakeholders involved in HIV awareness and not just UAC. There should also be a comprehensive HIV & AIDS program. 5.4 HIV awareness must also be conducted in the communities, the college students and staff, and not	The Contractor

	to the workers only. 5.5 Monitor and make a report on the measures undertaken showing how they have been implemented in line with the National Strategic plan. 5.6 Abide by the minimum standards package. The most important point is that when the project is completed, the community or the college personnel's should not be worse off from the time the project commenced. 5.7 UAC has mainstreaming guidelines which will be shared with MoES such that they can provide them with all their contractors to guide project implementation. 5.8 The Contractor should monitor and document its performance on measures undertaken to curb HIV spread. It should also conduct a rapid assessment at commencement, mid and end of the project for evaluation of the baseline and the prevalence rate.	

Photographs taken during the meeting/ consultation

Attendance list for the meeting



NO.	NAME	TITLE	ORGANISATION	TELEPHONE NO.	EMAIL ADDRESS	SIGNATURE
1.	GLORIA SIBO	E&S	CRS/ GESCH.	0787007624	sibomgloria@gmail.com	
2.	AMANDA CHRISPA LULU	S	CRS/ GESCH	0393206360	lulamanda89@gmail.com	
3.	OOla Eugene	Head Planning	UAC	0772358696	eoola@uac.go.ug	
4.	Sarah Khanakwa	Head Reg Mob.	UAC	0772515894	skhanakwa@uac.go.ug	
5.	Qwinto Bartonyo	DHA	LWZ	0772431250	qwintogeo@gmail.com	
6.	Charles Otai	M&E-O	UAC	0782444956	cotai@uac.go.ug	
7.	MUYANGU BAKER	E&S	CRS/ GESCH	0704478485	muyangub@gmail.com	
8.						

Meeting 2: Ministry of Gender, Labour and Social Development, Department of Health and Safety

Project Name	USDP – Upgrading of Lira Technical Institute to a Center of Excellence AWARENESS CREATION / CONSULTATION MEETINGS
Subject	MINISTRY OF GENDER, LABOUR AND SOCIAL DEVELOPMENT ,DEPARTMENT OF HEALTH AND SAFETY
Location:	Plot 2, Simbamanyo House, George St– D/OSH's Office.
	CONSULTANT TEAM 1. Sibo Gloria Muhwezi - Environmentalist 2. Miss Arinaitwe Dian – Sociologist 3. Kizito Paul Anderson – Environmentalist

	4. Miss Rwabona Martha - Sociologist DEPARTMENT OF OHS 1. Miss Kyomukama Maggie

Healthy and safety officer's views for consideration on the key concerns to address during this environmental and social impacts assessment phase: -

- Appropriate Personal protective gear should be provided to all workers and visitors accessing sites.
- Fully equipped First Aid facilities should be provided at all sites and a trained personnel employed to provide such services
- Workers should be provided with meals and drinking water, adequate sanitary facilities, and should work for 8hours but at most 12 hrs.
- The contractor should develop and implement Safety policies
- Appropriate and adequate signage should be placed in and around the construction site
- A comprehensive safety and management plan /safe working plan should be developed and implemented.
- All the construction sites must be registered as workplaces one month prior to opening up;
- All equipment must be submitted to this ministry for assessment such that hazardous equipment such as cranes are licenced before operation;
- Gender mainstreaming should be achieved on this project. Women should be considered and women friendly facilities erected on site.
- Workers should be provided with meals and drinking water, adequate sanitary facilities, and should work for 8hours but at most 12 hrs.

KEY INFORMANT GUIDE

SOCIAL IMPACT ASSESSMENT

CONSULTATION FORM

ATTENDANCE MINISTRY OF GENDER, LABOUR & SOCIAL DEVELOPMENT.

No.	Name	Organisation and Title	Telephone No.	Email Address	Signature
Client	MINISTRY OF GENDER, LABOUR & SOCIAL DEVELOPMENT				
	Maggie M Kyomukama	MGLSD Asst. Commissar Gender & Woven Affairs	0772516778	maggiekyomukama@gmail.com Maggie Mabweijano	
	EVA KATUSABE	MGLSD PRINCIPAL SAFETY INSPECTOR	0779 651582	lynmzs@yahoo.com	
Consulting Team	GESCH CONSULT LTD				
1	Ruabaana Martha Lynn	Environmentalist	0702-000328	marthalynn53@gmail.com	
2	ALINAITWE DIANAH	SOCIOLOGIST	0777725651	alin.diane@yahoo.com	

CONSULTATION AREAS

PHOTO OF THE CONSULTATION

Minute 3: Lira District Headquarters

Minutes for the meeting held at Lira district headquarters on the 7th august, 2018.

Project	USDP
Activity	AWARENESS CREATION / CONSULTATION MEETINGS
Location:	Lira district Offices

The meeting commenced at 3:10pmon **7th August, 2018.**

General response on environmental and social Impacts including Mitigation Measures both phases.	**Positive and negative environmental and social impacts during construction activities:** *Positive Impacts* • Employment opportunities for the locals • Economic growth of the area • Income creation for nearby business especially food stuff during construction phase; *Negative Impacts* • Increased rate of runoff may result; • Increased siltation especially of the road; • Work accidents • Dust generation; • Utility line disruption • Increased HIV spread; • Increased Crime rate, • Heaped soils from striping **Proposed Mitigation Measures** • Employment of local people in as many departments as possible. • Frequent watering and dusting of the excavation site to reduce on the dust that could be harmful to the environment. • The contractor should develop and implement waste management and traffic management plan • The contractor should continuously engage main market police post in crime management • Employment of an onsite Environmentalist and OHS

	personnel to handle Environmental Issues and Occupational, Health and Safety issues for works respectively by the contractor • Constant community awareness and mitigation of HIV/AIDS including nearby schools • Adequate and appropriate signage along site showing construction works on going • Hoarding off the entire construction sites; • Provision of adequate drainage channels • Proper Maintenance of the vehicles, trucks and equipment to avoid leakages and contamination of the river; • Continuous sensitization of the locals to increase high crime rate awareness. • Employment of a project sociologist to handle community grievances • Constant implementation of the ESMP and the management plans as per the project
Deputy Town Clerk	*Responsibility* • Oversee the entire project • Render guidance under community issues • Reviewing contractual obligations • Receiving and responding to complaints • Constant community sensitization about UTC - Lira usage on talk shows, concerts, rally's and other avenues
Engineer	*Responsibility* • Review the construction plans and designs • Inspect civil works • Provide technical guidance to construction works, BOQ.
Environment officer	*Responsibility* • Inspection of environment related works • Approval of dumping sites • Ensuring contractor implementation of the ESMP

Figure 46: Site visit with the Municipal Environment Officer and Physical planner

Minutes 6: Consultation with the community neghbouring the Institute

MINUTES FOR THE MEETING HELD AT WITH COMMUNITY NEIGHBOURING TH INSITITUTE 24TH Sep, 2018.

Project:	**REDEVELOPMENTS AT UTC - LIRA**
Date:	24TH /09/2018
Municipality	Lira
District:	Lira
Time:	2:20pm

Agenda

1. Introduction.
2. Communication from the Consultant.
3. Reaction and questions
4. Views of the community.

ISSUES DISCUSSED	RECORDS OF DISCUSSIONS
Introduction	The meeting started with member introducing themselves.
Communication from the Consultant.	The consulting team informed members in attendance that the meeting was intended to collect Key stakeholders thoughts on the proposed re-developments to be undertaken in UTC-Lira; Environmentally and Socially. The discussion was guided by the following questions as asked by the consultant: • What are their general expectations of the entire project? • What are the potential positive and negative environmental and social impacts anticipated during the construction? • How would the above mentioned negative impacts be mitigated? • What are the potential positive and negative environmental and social impacts during the operation or after construction phase? • How would the above mentioned negative impacts be mitigated? • Are there any sensitive sections surrounding the institute that

	require protection?
Response from the various members consulted	**Anticipated impacts during and after construction within the institute;** *Positive Impacts* • Employment opportunities for the youth in the municipality • Provision of a better place for relaxing • A place for functions like weddings, rally's, LC1 meetings and youth meetings *Negative Impacts* • Pollution and blockage of the river; • Dust generation during work; • Accidents during construction exercise • Increase in the spread of HIV/AIDS due to presence of external people in the area; • A lot of noise during the construction period • Increase in Crime rate, **Proposed Mitigation Measures** • Adequate and appropriate signage around the site showing construction works on going • Local people should be given priority during recruitment. • Constant sensitization of the community and mitigation of HIV/AIDS including nearby schools • During execution of construction works, the institute should be horded off • Carry out sensitization of the locals to increase high crime rate awareness. • Frequent watering and dusting of the excavation site to reduce on the dust that could be harmful to the environment. • Proper management of waste

	• Traffic control to avoid accidents especially by vehicles transporting construction material to and from site

Photos of the meeting with the surrounding community

Appendix 2: Management Plans

1. OCCUPATIONAL, HEALTH AND SAFETY PLAN

2. GENERAL STATEMENT OF THE PLAN

Our plan is to provide and maintain safe and healthy working conditions, equipment and systems for all our employees, and to provide such information, training and supervision as needed for this purpose.

This detailed Occupational Health and Safety management plan will therefore guide the project Contractor in implementing occupational health and safety safe guards. The plan will constitute the day to day activity to guide the contractor's integrate safety measures in her works. Periodic reviews will be undertaken to cater for any eventualities and emergencies that may arise during implementation.

1.1 Proposed Safety and health policy

Contractor believes that **NO JOB OR TASK IS MORE IMPORTANT THAN WORKERS' HEALTH AND SAFETY.** If a job represents a potential safety or health threat, every effort will be made to plan a safe way to do the task.

Every procedure must be a safe procedure. Shortcuts in safe procedures by either foremen or workers are not to be tolerated.

If a worker observes any unprotected job, which may pose a potential threat to their health or safety, he or she must inform management and management must take adequate precautions.

"IF A JOB CANNOT BE DONE SAFELY IT WILL NOT BE DONE."

Our future is only built through our people. We aim to protect them.

1.2 Goals

The main goal of this Occupational Health and Safety plan is to promote a safe and secure work environment through careful identification and management of hazards. The plan seeks to facilitate and empower workers and managers at all levels to participate in the avoidance, minimization and complete eradication of accidents and diseases associated with unsafe and insecure work places.

The plan further seeks to enhance worker productivity through appropriate training and provision of tools that enhance performance, reduce lost time through accidents and limit material and financial losses arising from inappropriate equipment's, workers, methods and complacent personnel.

The safety and health plan is designed to achieve the following specific objectives:

a) Achieve Zero reporting of accidents of all sorts and near misses throughout the construction life span of the project; thereby eliminating losses resulting from injuries and infections and diseases at the work place;
b) Eliminate exposure and incidences of occupational injuries and diseases among all categories of the workforce; and

c) Operate a flexible and quick response system to injuries at the work sites, following thorough training of all project staff in OHS procedures at induction; thus instilling a culture of responsibility and accountability on Safety and Health.

1.3 OSH Plan Institutional Matters, Reporting and Quality Assurance

The overall implementation of this plan will lie with the Project Manager who will delegate functional duties to the Health and Safety Officer. A safety committee comprising of section managers, foremen and workers representatives shall be constituted. The Supervising Environmentalist and Sociologist shall advise the Health and Safety officer and the committee. This OHS plan is a living document that will be updated in consultation with all employees, the client and supervising consultants. Periodic audits both internal and those commissioned by regulatory agencies shall also inform periodic updates of the health and safety plan. Through quality assurance mechanisms specified in here, the contractor is expected to achieve its stated objectives.

In addition, the Contractor will:

- Make this plan readily available to all workers and all people concerned about this project and ensure they have an opportunity to read, understand, clarify and ask questions
- Keep a copy of the management plan for the whole duration of the project
- Review the plan regularly throughout the project and make any revisions known to those working on the project

1.4 Organisation

Overall and final responsibility for health and safety on the project is that of the Contractor's Project Manager.

The following supervisors are responsible for health and safety.

- Social Officer.
- Safety Officer
- Environment Officer

All employees have the responsibility to cooperate with supervisors to achieve a healthy and safe sensitive workplace, and to take reasonable care of themselves and others.

Whenever an employee, supervisor or manager notices a health and safety problem which they are not able to put right, they must straight away report to the responsible persons as named above.

3. HEALTH AND SAFETY REPORTING AND AUDITS

4.

2.1 Monthly Health and Safety Reports

The OHS officer shall produce monthly reports to be discussed at the site monthly meetings. The content of the report shall reflect all aspects of hazards identified. Detailed statistics on Implementation of safety plan including but not limited to the following shall be presented:

i. Induction training carried out by section
ii. Fire drills conducted (number and sections)
iii. Health and safety tool box talks conducted
iv. Incident statistics categorized where possible
v. Fatalities on the project by section If any
vi. Near misses records
vii. Notifiable incidences
viii. Disbursement and use of PPEs
ix. Compliance levels among employees by section
x. Equipment certification by relevant agencies
xi. External inspections and their outcomes (If any).

2.2 Quarterly Internal Audits

The Health and Safety Officer working with the Committee and section managers shall undertake quarterly health and safety audits on the entire project. The team with the guidance of the OHS officer shall prepare and audit protocol to be administered by section managers, sub-contractors or their designated representatives. The scope of this type of audit shall depend on the nature of ongoing operations. The purpose of this Level of audit is to evaluate performance of the plan and the outcome will be used to fine tune, refocus and improve overall plan implementation. The audit report shall be submitted to the Resident Engineer and discussed at the subsequent site meeting. The content of the quarterly audit report shall mirror the monthly reports though with much more in-depth analysis.

2.3 Annual Health and Safety Audits

Annual health and Safety audits shall be carried out by a competent external auditor hired by the Contractor. The annual audit will be a performance audit whose scope and content shall be determined by the Lead auditor, Resident Engineer, Environmentalist

and Sociologist of the RE, Health and Safety officer of the contractor and the general management team shall be consulted. The purpose of this audit shall be to evaluate compliance with the contractor's own health and safety plan and guidelines and further evaluate compliance with statutory Health and Safety legislation and regulations.

Outcomes of this audit shall inform updates to the existing OHS plan. Being a statutory requirement, this annual audit shall be submitted to the client through the Engineer for onward transmission to designated lead agency.

2.4 Hazard Identification and Risk Assessment

Hazard identification and risk assessment are critical to Health and Safety planning in construction projects. Prior to the commencement of any works, introduction of any plant, substances, processes or work practices in this project, hazard identification will be carried out to identify whether there is any potential for injury, illness or disease associated with such introduction. This plan identifies hazards and risks associated with sections of the project. The following generic hazards have been identified to apply to entire project:

1. Manual handling,
2. Use, installation, inspection and/or repair of plant and equipment,
3. Working at heights,
4. Falling objects,
5. Working in confined spaces,
6. Vehicle movements on site,
7. Handling and storage of hazardous substances and dangerous goods,
8. Electrical installations and repairs,
9. Fire,
10. Noise and Vibrating Equipment,
11. Dust, fumes
12. Stressing,
13. Traffic control,
14. Inadequate sanitation and illicit sexual relationships
15. Congestion
16. Falls and slippery surfaces
17. Electric transmission lines and towers
18. Bites from poisonous Insects.

5. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

The management and monitoring of OHS will be under the docket of a fulltime Safety Officer together with Environmental Control officer. This team will produce guidelines to be followed by all employees and visitors while within the premises and work sites.

1.1 Site Safety

The following procedures and actions will be implemented by the implementing Contractor.

- Yellow safety mesh will be placed around any excavation area, to reduce the possibility of injury to workers, residents and domestic animals.
- The safety mesh will be installed in such a way that small children cannot gain access to the excavation area.
- Appropriate safety signage will be placed around excavation areas and sections with work in progress (with appropriate picture illustrations).
- The Contractor will on a daily basis inspects all pit construction and ensure that all safety mesh and all exposed "pits" are appropriately covered.
- Communities around the schools were construction works are taking place will be sensitized on safety issues.
- Provision of warning signage on all high-risk equipment and on work surfaces
- An accident register will be established at all work sites
- A fully equipped safety kit will be available at all work sites
- Provision of onsite toilet and washing water for workers.
- Provision of portable water for workers at all times.

1.2 Personnel Safety

- Working hours will be from 08h00-17h00 with construction occurring from Monday to Friday only (any work beyond these hours will be treated as overtime).
- All workers will undertake compulsory induction training in work safety
- Warning signage and proper housekeeping will be maintained at all work areas.
- Induction training to all new workers on safety and risk in construction sites.
- Provision of PPEs to all employees and posting of signage reminding use of PPE at appropriate Locations in the project area including ancillary work sites.
- All employees shall be properly trained in the handling of appropriate fire fighting equipment and that such equipment will be on hand at all times.
- The contractor shall ensure that as far as practical, suitable arrangements are made on the site for the maintenance of health, the prevention and overcoming of outbreaks of disease and of adequate first aid services.
- The Contractor will provide portable water in appropriate Locations for all workers on site to drink especially on hot days. The contractor shall ensure safe drinking water is provided on site at all times.

1.3 Fire safety and Management

Fire safety and management planning will be key to this assessment. The Contractor will ensure that all, resources required to manage a fire outbreak are appropriately deployed at all times. The following routine and emergence response procedures and actions will be followed:

- All employees will be inducted on fire safety and undertake regular fire evacuation drills.
- The Safety Officer will be required to produce routine reports on fire safety management and awareness.
- Appropriate equipment of either class A, B or C, water horse pipes and sand buckets for fire suppression will be located in designated places

- All potential fire hazard areas will be screened off including fuel storage and dispensing areas. Appropriate signage will also be displayed on such areas
- Install "no smoking" signage in high fire risk (fuel tanks and dispensers), public and communal areas.
- All building at the campsite will have emergency fire exits well marked for all people.
- A well designated fire assembly point will be availed at the camp.
- Ware houses for all inflammable materials will be well labelled and precaution signage posted.

GENDER ACTION PLAN

1. What Is a Project Gender Action Plan (GAP)?

A Project Gender Action Plan (GAP) is ADB's key gender mainstreaming tool and mechanism for ensuring gender-inclusive design and implementation of projects. GAPs give visibility to and accountability for gender mainstreaming. They make gender mainstreaming tangible and explicit in program and project design and implementation.

GAPs include quotas, targets, activities, and design features to address gender-equality issue, and to facilitate women's involvement, participation in, and tangible benefits from the project. GAPs provide a road map for project implementation, monitoring, and evaluation.

2. The Scope

This Plan shall apply to all operations and Employees of the Contractor and Sub-Contractors.

3. Legal and Policy Context

The Constitution of the Republic of Uganda provides overall legal frame work for the Uganda Gender Policy (UGP). It recognizes equality between women and men. Specifically, it provides for gender balance and fair representation of marginalized groups; recognizes the role of women in society; accords equal citizenship rights, freedom from discrimination, and affirmative action in favor of women; and articulates specific rights of women including outlawing customs, traditions and practices that undermine the welfare, dignity and interests of women.

4. The Gender Policy, 2007. The Government of Uganda's first National Gender Policy (NGP) was approved in 1997. The policy provided a legitimate point of reference for addressing gender inequalities at all levels of government and by all stakeholders, including contractors (The Contractor).

Convention on Elimination of All Forms of Discrimination against Women

The Convention on the Elimination of all Forms of Discrimination against Women (CEDAW) is an international treaty adopted in 1979 by the United Nations General Assembly. Described as an international bill of rights for women, it was instituted on 3

September 1981 and has been ratified by 189 states including Uganda. Article 1 defines discrimination against women as; any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.

Therefore, all forms of discrimination against women during implementation of the above named projects shall be condemned

4. Gender Analysis

4.1 National Perspective

According to the Gender Policy (2007), the percentage of women who are HIV positive are 7.8% as compared to 6.4% of men, among 15-49 year olds, HIV prevalence for females is 12.8% in urban and 6.5% in rural areas.

Total fertility rate is at 6.7 children per woman. Sixteen percent (16%) of women are married by age 15 and 53% by age 18. (UDHS 2006).

Sixty percent (60%) of women aged 15-49 years' experience physical violence, 39% sexual violence and 16% have experienced violence during pregnancy (UDHS 2006).

The employment status of employed persons aged 10 years and above stands at 89.6% for the self-employed, with 84.0% male and 95.3% female in the rural areas and 54.3% for the male and 68.7% female in the urban areas

Women continue to suffer very high time burdens in pursuing their livelihood strategies. The Uganda Strategic Country Gender Assessment (World Bank 2005) reveals that women work considerably longer hours than men (between 12 and 18 hours a day, with a mean of 15 hours), compared with an average male working day of 8 to 10 hours. Women bear the brunt of domestic tasks, in addition to agricultural and other productive work. The time and effort required for these tasks, in almost total absence of even rudimentary domestic technology, is staggering. This has a negative effect on food security, household income, children's schooling, and participation in community life, health, and overall productivity.

There are significant gender inequalities with regard to the right to property. Land is a critical resource for over 90% of households in Uganda, and women own only 16% of the registered land. (Gender Baseline Study: Land sector, 2004). Apart from a few, economically advantaged, the majority of women have only user rights determined by the nature of the relationship they have with a male land owner - father, husband or brother. A large part of women's contribution at household level tends to be non-monetary and hence does not directly go into what is generally understood as property

The right to livelihood for young people has increasingly become an issue of concern. Young women and girls' rights are violated through early marriages, 16% of women are married by age 15 and 53% by the age of 18. The average Ugandan girl gets married at the age of 17 years (UDHS 2006) teenage pregnancy rate is at 34% and women's age for

sexual debut is 16.7 years compared to men at 18 years. The UDHS 2006 further reveals that 24% of the girls have had sexual intercourse by the age of 15 and 69% by the age of 18. The right to livelihood of young men and boys remains a challenge. Out of school male youth in rural and peri-urban areas are unable to find viable livelihood opportunities, due to inadequate skills, lack of assets and limited options in other lucrative sectors As a result male youth are vulnerable to alcohol, drug abuse and crime. The UGP recognizes that gender disparities in rights to property and livelihoods on the part of the youth undermines the future of the country as a whole.

4.2 Project Area Perspective

Site inspection, review of relevant documentation such as the ESMF undertaken in 2016 and Statistical abstract of Lira, reveal that at comparing the roles of women and men in the project environment. It was established that men are more likely to be responsible for buying or acquiring assets as deduced by 51% of the community members as compared to the likelihood of women rated at only 8%. Women are more involved in domestic activities participating in 70% of the household chores as compared to men who only participate in 4%. But the survey findings revealed that 26% of the household activities are jointly done by all family members. Though farming was noted as an activity in which all family members participate, marketing of agricultural produce was a women dominated activity as noted by 43% of the community members and less by men whose participation was estimated at 27%.

From the survey it was established that boys mainly participate in animal rearing, farming and buying basic necessities while girls are mainly involved in helping with domestic chores, child caring and marketing of agriculture produce. It was noted that roles participated in by girls are similar to those for women which can be attributed to cultural practices that tend to prepare girls for future roles as house wives

The gender dynamics within the wider community were also investigated through considering activities in which the larger community participates. Sports were mainly defined as a male dominated activity with men and boys participation standing at 52and 32% respectively. Both men and women participated in attending community meetings although the percentage of men still outweighed that of women in all meetings held during consultations. These findings show that men have more control over community resources whereas women are more involved in activities at household level. This means that men have to be consulted widely on where community resources are likely to be affected because they are the decision takers.

5. Project Impacts on Gender

5.1 Positive Project Impacts on Gender

The construction of the planned projects in UTC- Lira will invariably enhance gender participation in the project area where both men and women will be employed to undertaken different roles of [project construction.

5.2 Negative Project Impacts on Gender

- Women are likely to be least favored in the job provision. This is because of the nature of jobs available in the construction of the listed projects under chapter 2 are all civil work related and are perceived to be done by mainly men.
- There is likely to be developments of relationships between workers and the women of the area that are either engaged or already married, this can result into marriage break ups.
- There could be immorality especially with the young girls within the college or from around the technical college, in efforts to gain favour for employment opportunities, this can result into spread of sexually transmitted diseases such as HIV/AIDS. Impact on HIV will be long-term as its spread and associated impacts will continue even after construction.
- Farming activities in rain seasons demand a lot of garden work by women, which may impede their employment in construction. Married women may benefit less from construction employment because their spouses may dictate their level of participation in the available jobs if any. In general therefore, the impact on gender is evaluated as High Negative as it is long-term and spreads beyond project area
- Discrimination in terms of distributing jobs and unequal pay is likely to occur.

5.3 Project Mitigation

- Jobs should be equitably distributed to both women and men as long as one has the qualification rather than basing on gender to allocate jobs.
- Information dissemination about dangers of HIV/AIDS to the community should be done all throughout the period of the project. The messages should be passed on using the locally understood language for better understanding.
- A gender management plan be prepared by the contractor under which it should ensure among others the following:
- To the extent possible, equal employment opportunity shall be available for women for road construction jobs. To effect this, the contractor shall encourage women to apply for available jobs by indicating this in job adverts. Additionally Local council representatives working with the contractor on recruitment shall encourage women to apply for project jobs. The aim will be to have at least 10% of workers being female.
- During construction, women can be involved in a wide range of activities including traffic control, store-keeping, security, painting stone pitching, beautification/ landscaping and sweeping.

- The contractor should use gender-sensitive language such as: "Go Slow, Work in Progress" instead of "Go Slow, Men at Work". This, coupled with women's visibility in road works would, contribute to women's empowerment as well as breaking the stereotype that road construction is a preserve of men.
- To avoid severance of access to private property like homes, farmlands and grazing fields, the contractor should provide temporary access routes, or "bridges" that can be safely used by especially women, children, disabled and elderly people.
- The contractor will be selective in awarding service contracts, giving preference to women- owned entities. This, for example, is in regard to supply of foodstuffs to workers camps, housekeeping and culinary services for workers.
- The parents should advice their girls against indulging in any kind of relationships with the workers.

6. Gender Action Plan for the Contractor

The Table below summarizes the Gender Action Plan

Project Activities and targets	Responsible person
• The signs on site should use gender sensitive language, i.e. WORKS IN PROGRESS, PEOPLE AT WORK, rather than MEN AT WORK • Ensure participation of women (at least 50%) in community consultations and meetings and conduct these in vernacular languages (this is according to the best practice). • Ensure females are represented on Grievance Management Committee (GRC). • If land is acquired for sub projects, ensure that affected females are compensated at the same rate of payment as affected males, and provided with adequate arrangements to restore/maintain livelihoods • The Contractor and sub-contractors will prioritize the use of local unskilled labor where possible • The Contractor and sub-Contractors will hire women for at least 30% of the required unskilled labor. • Unskilled men and women workers will receive equal pay for equal work. • Contractors will not hire child labor. • Contractors will ensure strict implementation of the safeguard measures during civil works including wearing personal protection equipment, hard hats,	Project Sociologist Consultants

gloves, safety boots, etc. • Workers will elect a capable representative, who can advance gender concerns, to act as a liaison between them and the contractor. • During construction, women can be involved in a wide range of activities including such as porters, delivery, store-keeping, security, painting stone pitching, beautification/ landscaping and sweeping. • The contractor should use gender-sensitive language such as: "Go Slow, Work in Progress" instead of "Go Slow, Men at Work". This, coupled with women's visibility during construction thus contributing to women's empowerment as well as breaking the stereotype that construction is a preserve of men	
• Capacity of the local contracting industry will be built, including gender and labour-based approaches to routine maintenance. • A sex-disaggregated registry of local unskilled labour will be available for contractors, and the district Labour Officer will be able to track the use of local labour. • At least 20% of maintenance workers will be women. • Strict enforcement of the core labour standards (equal pay for equal work for men and women, no child labour, etc.)	Project Sociologist Consultants
• An HIV/AIDS and Human Trafficking prevention program will mitigate potential negative impacts during and after construction. The program will target communities, construction workers, schools, and other stakeholders. 40%of residents (50% women) and all contractor personnel will participate in the programme. • All socio-economic baseline data will be sex-disaggregated	Project Sociologist Consultants
• Capacity building will be provided to all staff and sub-contractor staff • Recruit at least two Gender Officers to support the Sociologist and E & S Team (at least 1 woman). • All Project Management Unit (PMU) staff will participate in training on social and gender issues.	Project Sociologist Consultants

7. Implementation Arrangements

The GAP will be implemented by the Contractor who will employ a Sociologist overseeing execution and compliance of all social and gender dimensions of the project, and social safeguards who will report directly to the Environment and Social Manager.

The Contractor will employ gender specialist at each camp site who will be responsible for incorporating the GAP into project planning and implementation programs, including awareness training and establishment of sex-disaggregated indicators for project performance and monitoring. The progress of GAP activities will be included in regular progress reports on overall project activities submitted to the District Labour Officer and MoES.

8. Monitoring and Reporting

All monitoring processes shall incorporate a gender perspective to facilitate the assessment of the sub-sector's contribution to national gender equality and equity goals in general and the extent to which the respective programmes or projects are progressing towards gender specific outputs. Accordingly, all the sub-sector's monitoring indicators should, as far as possible, be disaggregated by sex and gender

Monitoring of implementation of the project construction works will be undertaken in a participatory manner involving the contractor, community leaders, District Labour Officer, CBOs with a gender mandate and the workers. This will be in the form of meetings with the focus of being how well the contractor is complying with the gender equality contractual obligations. CDOs who are involved in gender work will also be part of the monitoring process.

Gender Risk Management

Gender and family Risk management				
Objectives: i. To ensure that there is no violence related to gender based discrimination during project implementation. ii. To ensure that contractor workers do not involve themselves into extra marital affairs.				
Management strategy. The management will primarily manage this through establishment of Gender Action Plan				
Responsibility				
		Implementation	Monitoring/checking	Timing
Actions/controls	• Awareness creation for community members on the challenges of additional disposable income and how it can have a disruptive effect on the family. • The contractors should be bound to follow the Environment and Social Policy, procedures and guidelines. • Contractors with their staff - should be obliged to have Codes of Conduct for employees and anti-retaliation policies. • Administrative controls should be instituted to prevent unethical use of employers' resources. • Sensitization of community members	Sociologist	E & S Manager	Throughout the construction phase

	on the challenges of additional disposable income of migrant workers how it can have a disruptive effect on the family and therefore be prepared. • Empower community leadership to be able to protect the rights of children, woman and family norms. • The contractors should have regular community engagement meetings. • To take disciplinary action against perpetrators. • Workers will be sensitized on their gender rights and responsibilities. MoES - USDP will Work with the contractor on establishing zero tolerance policies and codes of conduct related to violence against women and girls (VAWG). The Contractor will conduct gender sensitization to the work force on matters such as gender sensitive communication and on the gender sensitive conduct of workers towards women amongst others. • Display signs throughout the site making it clear that the work site is a violence free zone and VAWG will not be tolerated. • To the extent possible, there will be gender sensitivity in task allocation to the women.			

	• There will be a Specialist (Environmental/Social Specialist) to oversee implementation of the gender action plan. • The project will install gender sensitivity facilities (toilets and bath shelters).			
Performance indicators	• Number of gender based violence reported. • Number of extra marital cases reported. • Number of complaints coming from communities. • Number of workers employed disaggregated by sex, age. • Task allocation by sex. • Proportion of women employed in supervisory positions. • Proportion of wages accruing to women. • Capacity building for both female and male workers.	Sociologist	E & S Manager	Throughout the construction phase
Monitoring	• Daily inspection of any gender/family related issue.	Sociologist	E & S Manager	Throughout the construction phase
Reporting	• All gender related based violence and family concerns should be reported to the project Sociologist.	Sociologist	E & S Manager	Throughout the construction phase
Corrective actions	• Implement any corrective measures during the project implementation	Sociologist	E & S Manager	Throughout the construction phase

9. Key Questions for the Monitoring Process

- Are the data sources and the data for verifying status broken down by sex and analysed in gender terms?
- Is there progressive achievement of gender equality and equity? Is the intervention addressing gendered travel patterns and transport needs?
- Are women and men being given equal opportunities to participate in and benefit from the intervention?
- Is the distribution of benefits taking gender relations into account?
- Are women and men equally participating in the intervention?
- Are the gender/women-specific activities being implemented?
- Are resources being disbursed in a gender-sensitive manner

10. Reporting

The contractor shall submit a monthly report detailing:

- Mobilisation and recruitment strategies employed.
- Number of workers employed disaggregated by sex, age.
- Task allocation by sex.
- Proportion of women employed in supervisory positions.
- Proportion of wages accruing to women.
- Capacity building for both female and male workers.
- Lessons learnt from implementations that can be the basis of documenting good practices.
- The report shall be verified by the Environment and Social manager

Appendix 3: Grievance Log

GRIEVANCE LOG/REGISTER

This form shall be utilized to provide written documentation expressed by a resident representative and to record the follow up action to be taken and result thereof.
Receipt of grievance/compliant
Date received:
Individual initiating compliant:
Compliant reported to:
Documentation of grievance/compliant
Describe concerns using factual terms:
Documentation of grievance follow up
Individual designated to take action on this concern
Date assigned: Date to be resolved by:
Was a group meeting held: ☐ Yes: if yes identify individuals in attendance: No:
What other action was taken to resolve the concern (be specific):
Result of action taken:
Resolution of the grievance/compliant
Was grievance /complaint resolved: ☐ Yes: describe action: No: explain why not:
Identify the methods used to notify the resident /resident representative of the resolution ☐ Written notification: ☐ Phone Conversation: ☐ One to one discussion: Date of notification:

Further action needed / Grievance to be escalated to another level:
This form was completed by:

Appendix 4: Accident Log

Details of person completing this form			
Name:		Date:	
Job title			
Accident ☐	Dangerous occurrence ☐	Near miss ☐	illness ☐
Details of the injured person			
Name of the injured person		Age:	Sex:
Address of the injured person			
Tel. no.			
Name of supervisor/foreman		Tel. No.	Email:
Accident or incident details			
Location of accident/incident			
What works where occurring at the time of accident /incident?			
Summary of the accident/ incident and the injury caused (parts of the body and severity). Attach photographic evidence if possible			

Actions taken:	
Comments:	

Appendix 5: Physical Cultural Resources Management /Chance Finds Procedure

For purposes of this EIA, Physical Cultural Resources include the following

- Archaeological deposits and remains,
- Historical monuments, sites and buildings,
- Historical and culturally significant Landscapes,
- Places of worship,
- Cemeteries, graveyards,
- Places associated with folklore, mythology (and traditions) and the location of historical and cultural festivals, events and rituals.

Before commencement of the clearing of the terrain at these sites, the contractor will acquaint itself with the type and Location of any sites of cultural or historical importance enumerated in the ESIA report, but shall not limit itself to those mentioned. The elements ultimately to be affected can only be determined during construction. Elements that can be easily identified are old stone structures, churches and graves. If cultural and historical elements including archaeological finds are present or if the contractor is unsure about a specific site, the Department of Museums and Monuments should be consulted.

Activities that are Likely to results in these above mentioned impacts include:

- Marram Extraction
- Contractor's yards, labor accommodation
- Storage areas
- Access roads
- Cuts and fills
- Maintenance
- Earthworks

Where a sensitive feature is found in an area (chance find), the following procedure will be adhered to:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects.
- Notify the supervisory Engineer who in turn and the administration at BAC, as well as the responsible local authorities;
- Responsible local authorities and the relevant Ministry would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures.
- Decisions on how to handle the finding shall be taken by the responsible authorities and the relevant Ministry. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage.
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the relevant Ministry.

- Construction work could resume only after permission is given from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.
- The department of Museum and Monuments will be responsible for only nationally identified significant cultural and historical sites while the local communities are responsible for their cemeteries, traditional and physical cultural resources according to the societal norms.
- If any significant physical cultural resources are encountered during the construction, the department of Museum and Monuments should be contact for further guidance.
- The World Bank's requirements regarding property cultural aspect are detailed in Operation Policy Framework 4.11 and shall be applicable to the project if any significant cultural aspects are found within the sites or within the project area during construction.

Once the sensitive feature's nature and location has been confirmed, the following shall be applied.

- Stop all construction activities in the area and notify the SE. The Contractor's environment officer will consult the relevant Local Authority, Department of Museums and Monuments and other relevant cultural institutions for the appropriate procedure to be followed.

Grave sites and Translocation

The issue of translocation of graves is an extremely sensitive one. If possible, the construction works and proposed developments will be revised to avoid all the Graves. The relocation of graves should be seen as a Last option only and should be handled with the utmost sensitivity as described below. The Department of Museums and Monuments, relevant cultural Institution, other Government Agencies with a mandate will be consulted in such instances. There is a strict order of events which will be adhered to:

- The gravesite will be reported to the Supervising Engineer who will then forward the information to both the Institute and USDP task team.
- The client must then negotiate with the family of the deceased or any concerned institution to reach an agreement on the exhumation and reburial.
- Once the agreement is reached, the exhumation and reburial will be performed in accordance with the applicable rituals. It will then be the duty of the BAC administration to supply the caskets, dig new graves and perform the exhumation and reburial upon request by the authority.
- All gravesites remain in-situ and are avoided as far as possible.
- If a grave site is accidentally damaged or uncovered during construction activities, all construction activities will stop in the area and the Administration. The contractor should consult the relevant cultural institution for the appropriate procedure to be followed.
- Gravesites or other socially significant structures will be protected by means of a physical barrier both during construction and operation to prevent disturbance, vandalism or destruction.

Appendix 6: Code of Ethics And Conduct

POLICY BRIEF AND PURPOSE

The code of ethics and conduct sets out the company's values, ethics, objectives and responsibilities. Our **Employee Code of Ethics and Conduct** outlines our expectations regarding employees' behavior towards their colleagues, supervisors and overall organization. We promote freedom of expression and open communication. We expect all employees to follow our Code of Conduct and exercise maximum restraint and discipline while executing their duties.

PURPOSE OF THE CODE OF ETHICS AND CONDUCT

1. It should give guidance to employees on how to deal with certain ethical situations.
2. It defines how company employees should act on a day-to-day basis.
3. It reflects the company's daily operations, core values and overall company culture.

SCOPE

This policy applies to all our employees regardless of employment agreement or rank.

Policy elements

Compliance with law

1. All employees must protect the company's laws. They should comply with all environmental, safety and fair dealing laws. We expect employees to be ethical and responsible when dealing with our company's finances, products, partnerships and public image.

2. All employees must register in and out at the gate and/or on their respective time sheets. Failure to sign may lead to forfeiting of employees hours or days of work.

3. Personal protective equipment (PPE) must be worn WHILE ON duty to avoid unnecessary injuries. Failure to do so may lead to warning, suspension from work, and eventual termination of employment in case of persistent violation.

4. All employees must follow instructions and report to their respective supervisors at all time. Violation of this code will lead to appropriate disciplinary action including termination in accordance with the disciplinary code schedule 1, Employment Act 2006.

5. All employees should respect their colleagues. We won't allow any kind of discriminatory behavior, harassment or victimization. Employees should conform with our policy in all aspects of their work, from recruitment and performance evaluation to interpersonal relations.

6. All employees should treat our company's property, whether material or intangible, with respect and care. Employees shouldn't misuse company equipment or use it frivolously. They should respect all kinds of property including

trademarks, copyright and other property (information, reports etc.) that should be used only to complete their job duties. Employees should protect company facilities and other material property (e.g. company cars) from damage and vandalism, whenever possible.

7. Misuse, theft or sabotage of such property including but not limited to siphoning fuel may lead to deduction of salary to the sum equivalent to the misused, stolen or sabotaged property, and to disciplinary action, including immediate termination. The Company may also bring the matter to attention of the enforcement authorities.

8. Sexual relationships with minors or under-aged children, school children, and married women as well as sexual harassment shall not be tolerated. Any employee caught, reported or suspected to engage in such acts will be investigated, suspended and, if proved guilty, immediately dismissed. (Please refer to the Company's Sexual Harassments Policy).

9. All employees must respect children's rights. It's every employee's responsibility to protect children while conducting construction works within the site and the material source sites, including the access roads.

10. Prostitution, alcoholism, smoking or use of any other illicit drugs, abusive language and fighting shall not be tolerated. The company expects its employees to conduct themselves in a businesslike manner. Drinking, gambling, fighting, swearing, and similar unprofessional activities are strictly prohibited while on the job. Employees must not engage in sexual harassment, or conduct themselves in a way that could be construed as such, for example, by using inappropriate language, keeping or posting inappropriate materials in their work area, or accessing inappropriate materials on their computer. The Company may also bring the matter to attention of appropriate enforcement authorities.

11. Gifts, favors, bribes or any other forms of corruption are prohibited.

12. All employees are required to work in a friendly manner and cooperating with each other.

13. All employees are obliged to report to their supervisors anything harmful or potentially harmful to the dignity or welfare of the staff and the company. Whistle-blowers shall be protected only when their justification is well-intended, right and fact-based.

14. Any employee once assaulted or mistreated by his/her superiors or field supervisors must report such persons to higher authorities in the company, i.e. project manager, for follow-up actions.

15. Any form of GBV shall be not be tolerated on the project and if found shall be punishable or reprimanded to police depending on the violation such as rape cases. Other GBV cases involve sexual harassment, gender discrimination among others.

Privacy and Confidentiality:

When handling financial and personal information about clients and employees or others with whom the company has dealings, observe the following principles:

- Collect, use, and retain only the personal information necessary for the company's business. Whenever possible, obtain any relevant information directly from the person concerned. Use only reputable and reliable sources to supplement this information.
- Deny both internal and external access to personal and confidential company information to those seeking it with no authority or approval to do so.
- Use only personal information for the purposes for which it was originally obtained. Obtain the consent of the person concerned or company before externally disclosing any information, unless legal processes or contractual obligations provide otherwise.

By signing and returning this Code, you are specifically acknowledging that you have read, understood and agree to adhere fully to its terms and conditions.

Employee Signature	HR Manager Signature
Name……	Name……
Work No……	Work No ……..
Sig……	Sig……
Date……	Date……..

Appendix 7: Data Collection Tool

PRELIMINARY ENVIRONMENTAL AND SOCIAL ASSESSMENT

DATA COLLECTION FORM

PROJECT:.....

LOCATION:.....

DATE:.....

Summary of Potential Environmental and Social Impacts with Adequate mitigation measures

SOCIO – ECONOMICAL ASSESSMENT

CULTURAL HERITAGE		
Designation		
Name	Features of interest	Distance from works
The Historical and Monuments Act, 1967		
Value and importance of the heritage feature		
Potential impact upon cultural heritage and recommended mitigation		
Impact	Mitigation Measure	
AIR QUALITY		

Areas sensitive to changes in air quality		
Sensitive Areas	Features of interest	Distance from works
Draft National Air Quality Standards, 2006		
Sensitive Receptors		
Potential impact from change in air quality and recommended mitigation		
Impact	Mitigation Measure	
Features of interest GENDER		
Activities that women and men involved in		
Social Areas	Importance	Distance from works
Potential impact and recommended mitigation		
Impact	Mitigation Measure	

LAND USE		
Designation		
Land Use Type	Importance	Distance from works

Potential impact on the Land use and recommended mitigation		
Impacts	Mitigation Measure	

NOISE AND VIBRATION		
Areas sensitive to changes in NOISE AND VIBRATION		
	Features of interest	Distance from works
Sensitive Receptors		
Potential impact from change in noise and vibration and recommended mitigation		
Impact	Mitigation Measure	

VULNERABLE GROUPS		
Designation		
Description	Sensitive Receptors	Distance from Impact

Potential impact from change on vulnerable groups and recommended mitigation		
Impact	Mitigation Measure	

MARKET STRUCTURES		
Type and numbers of market structures		
Name	Sensitive Areas	Distance from Impact
Potential impact from change on markets and recommended mitigation		
Potential Impacts	Mitigation Measure	

DEMOGRAPHICS		
Designation		
Description	Feature of Interest	Distance from Impact
Potential impact on the demographic aspects and proposed recommended mitigation		
Impact	Mitigation Measure	

BIOLOGICAL

ECOLOGY AND NATURAL CONSERVATION		
Designation		
Statutory	**Features of interest**	**Distance from works**
National Forestry and Tree Planting Act, 2003		
The Uganda Wildlife Act, Cap 200, 2000		
The Water Act , Cap 250		
Habitants		
Onsite Habitants	**Importance**	
Offsite Habitants	**Importance**	
Potential impact on the Natural Conservation and recommended mitigation		
Protected Species	**Impact**	**Mitigation Measure**
Un Protected Species	**Impact**	**Mitigation Measure**

FAUNA		
Type of Fauna		
Name	Feature of Interest	Distance from Impact
Potential impact on the Fauna and proposed recommended mitigation		
Impact	Mitigation Measure	

FLORA		
Number and Type of Flora		
Name	Feature of Interest	Distance from Impact
Statutory		
Non - Statutory		
Potential impact on the Flora and proposed recommended mitigation		
Impact	Mitigation Measure	

PHYSICAL

GEOLOGY & SOILS		
Designation		
Statutory	Features of interest	Distance from works
Non-Statutory	Features of interest	Distance from works
Potential impact on the Natural Conservation and recommended mitigation		
Impacts	Mitigation Measure	

LANDSCAPE AND VISUAL EFFECTS		
Designation		
Landscape Character	Importance	Distance from works
Potential impact on the Natural Conservation and recommended mitigation		
Impacts	Mitigation Measure	

WATER QUALITY AND DRAINAGE		
Location Areas that may be sensitive to water pollution or changes in the Hydrological Regime		
Name	Feature of Interest	Distance from works

Value and importance of area for water quality and drainage		
Potential impact to water quality and drainage and recommended mitigation		
Impacts	Mitigation Measure	

Appendix 8: Site layout plan of the proposed developments at the Institute